The Seventh Annual & Fifth International Conference on
CRITICAL THINKING
AND
EDUCATIONAL REFORM
AUGUST 2-5, 1987

Program
and
Abstracts

Under the Auspices
of the
Center for Critical Thinking and Moral Critique
and
Sonoma State University

Henry Steel Commager
Dean of American Historians, addressing the First International Conference on Critical Thinking and Educational Reform.
From Previous Conferences:

Michael Scriven

George Hanford

Neil Postman

Delores Gallo

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INTRODUCTION
The Heart and Core of Educational Reform

We have every reason to believe that critical thinking ought to be the heart and core of educational reform. If a person is adept at thinking critically, she is adept at gathering, analyzing, synthesizing, and assessing information, as well as identifying misinformation, disinformation, prejudice, and one-sidedness. A student with such skills will have the tools of life-long learning. Such skills are developed in a strong sense only when students are given extensive and continuing opportunities to construct and assess lines of reasoning from multiple conflicting points of view. Because of the human mind’s spontaneous tendency to egocentric and sociocentric reasoning, it is essential that students reason dialectically or dialogically, that is, empathize with and reason within points of view they oppose as well as within those they support. If children do not grow up with a rich and varied backlog of such experiences they will not develop genuine fair-mindedness. The time to begin this process is no later than the pre-school stage. This is where the foundation for fairness to others must be laid. It should be an essential part of the core of all schooling thereafter.

Such a goal is both cognitive and affective, for emotions and beliefs are always inseparably wedded together. When we describe ourselves as driven by irrational emotions we are also driven by the irrational beliefs which structure and support them. When we conquer an irrational emotion through the use of our reason we do it through the utilization of rational passions. It is only the development of rational passions that prevents our intelligence from becoming the tool of our egocentric emotions and the self-serving points of view embedded in them. A passionate drive for clarity, accuracy, and fair-mindedness, a fervor for getting to the bottom of things, to the deepest root issues, for listening sympathetically to opposition points of view, a compelling drive to seek out evidence, an intense aversion to contradiction, sloppy thinking, inconsistent application of standards, a devotion to truth as against self-interest—these are essential components of the rational person. It enables her to assert rationally to a belief even when it is ridiculed by others, to question what is passionately believed and socially sanctioned, to conquer the fear of abandoning a long and deeply held belief. There is nothing passive, bland, or complacent about such a person. All human action requires the marshalling of human energy. All human action presupposes a driving force. We must care about something to do something about it. Emotions, feelings, passions of some kind or other are part of the root of all human behavior. What we should want to free ourselves from is not emotion, feeling, or passion per se, but irrational emotions, irrational feelings and irrational passions. A highly developed intellect can be used for good or ill at the service of rational or irrational passions.

The educational reform needed then is not a return to the past but the forging of a new beginning, one in which for the first time schools become focused on critical thinking and dialogical learning. The role and education for both the teacher and the student needs to be reanalyzed and reconceptualized. Teachers need coursework in critical thinking as well as in its application to curriculum. They need instructors in those courses who model critical thinking. They need intensive field experience involving the observation of master teachers and supervised practice. They need to be valued as critical thinkers and given increasing professional autonomy. They need to be involved in the development of standards of practice in critical thinking. They need regular time to meet with colleagues to observe and learn from each other’s successes and failures. They need access to critical thinking materials. They need to join with the administrators and parents in making a commitment to school environment conducive to critical thinking. Such needs will not be met without funds: funds to thoroughly train staff (with long-term follow-up), funds for teacher release time, funds for staff to attend conferences, for instructional materials, for after-school committee work, etc . . . Quality in education will not come out of pure commitment and dedication.

On the college level we need strategies for getting beyond narrow disciplinary and technical loyalties and commitments so typically strong in departmentally organized curricula. By spending the bulk of one’s time writing and thinking within the confines of one field of knowledge, or worse, within one narrow specialty of that field, one loses sight of the place of that part within the whole. The student then is serially tested within “parts,” with little incentive to try to synthesize the parts into a whole. Such a task is not merely an “additive” one, but requires that students assess the parts for conflicts and contradictions, and use each to correct the others. Few college students make any real progress in this difficult and unrewarding task.

The problem of educational reform is therefore a long-term problem, requiring long-term as well as short-term strategies, and requiring a reallocation of social resources. We could make no wiser decision than to make a commitment to become a nation of educated and fair-minded people. Then we would have not only a large pool of talent to solve our technical and scientific problems, but also a citizenry with the critical faculties and ethical dispositions to work cooperatively toward solutions to the vexing problems which increasingly threaten the very survival of humankind in the world.
HISTORY OF THE CONFERENCE

The 1987 conference on Critical Thinking and Educational Reform reflects the development implicit in the six annual conferences which preceded it. From the beginning, the First National Conference on Critical Thinking, Moral Education and Rationality (1981), the concept of critical thinking we have fostered was linked to broadly based ethical concerns and not simply on more narrowly defined academic and technical needs. We began by bringing together some of the finest philosophical minds to reflect upon this crucial area of concern. Nicholas Rescher, Michael Scriven, Joseph Ullian, Julius Moravcsik, Ruth Marcus, Ralph Johnson, J. Anthony Blair, Mary Anne Warren, were among those who set us on our way. Beginning with thinkers capable of the most profound and self-critical thought was an excellent foundation to build upon. But we quickly saw that if progress was to be made we had to expand our efforts to involve decision-makers at all levels of education. We were well aware that reports on educational reform would not reform education. Very often these reports themselves were in need of critique.

The conferences that followed the first have been expanded progressively therefore to include more emphasis on the crucial early years and on the forces and factors affecting the realities of teaching. We have sought to augment and unfold sound theory with models of sound practice. Hence, our growing emphasis on workshops and video-tapes modeling instruction.

There have been two central problems that we have faced in bringing together K-12 and college instructors. Many college instructors and theoreticians have had little experience trying to translate the results of their research into classroom strategies at the K-12 level. And many K-12 teachers in turn have little sympathy for any theory that cannot immediately be so translated. Indeed there is still alive in educational circles today the syndrome that H.L. Mencken so vividly caricatured:

“The aim seems to be to reduce the whole teaching process to a sort of automatic reaction, to discover some master formula that will not only take the place of competence and resourcefulness in the teacher but that will also create an artificial receptivity in the child. Teaching becomes a thing in itself, separable from the superior to the thing taught. Its mastery is a special business, a sort of transcendental high jumping. A teacher well grounded in it can teach anything to any child, just as a sound dentist can pull any tooth out of any jaw.” (Baltimore Sun, 1923)

In 1986, 280,000 California eighth-grade students took a history-social science test in which 40% of the questions address critical thinking skills. The California State Department of Education has developed a continuum of critical thinking skills for the 3rd, 6th, 8th, 10th and 12th grades. A number of other states, including New York, Connecticut, Pennsylvania, South Carolina, Utah, Wisconsin, and Alaska are mandating critical thinking instruction in one form or another. The College Board has already pointed out that the ability to reason and think critically is a fundamental and necessary component of all other basic academic competencies. And just recently the American Federation of Teachers has published a national position paper on critical thinking.

The Center for Critical Thinking and Moral Critique has been working closely with the California State Department of Education, the College Board, numerous school districts, the Association for Supervision and Curriculum Development, the National Education Association, and the American Federation of Teachers to facilitate implementation of the highest standards of critical thinking instruction from kindergarten through the university.

It is important to recognize that we are still very much in the beginning stages of educational reform based on critical thinking instruction. There is every reason to think that the need for an annual conference in critical thinking will continue indefinitely. The deeply entrenched compartmentalization of knowledge, the increasing sophistication of propaganda and mass manipulation techniques, the continuing dominance of rote memorization and recall of facts as modes of learning, the growth of television and the electronic media, the increasing conflict of opposing ideologies in the global village, the acceleration of misunderstanding and stereotype in international politics; the growing desire for simplistic explanation of life with opposing groups being identified as essentially "good" or "evil", the growing threat of nuclear holocaust—all argue for the pressing need for fair-minded critical thinking skills.
ORGANIZATION OF THE CONFERENCE

It is our assumption that all of the participants in the conference bring to it a shared general interest in critical thinking understood as a family of interdependent intellectual skills and abilities in need of support by a complex of rational passions. We assume as well that all participants share a commitment to the principle that such abilities and affective qualities can only be developed over an extended period of time and as the result of careful cultivation. We expect therefore that all participants will have some interest in the unique and necessary contributions of others working in diverse subject areas and at diverse educational levels.

Those who teach the early years need to understand and appreciate the superstructure that is to be built upon the foundations they help to lay. Those who teach the middle years need to understand and appreciate what has come before and what is to follow. And those who teach the later years need to provide the capstones that will solidify the skills, insights, and passions that can secure life-long learning grounded in deeply internalized critical thinking skills. We assume then that all participants will make some effort to communicate with and build connections to others, to reach out beyond the parochialism of subject matter and grade level.

At the same time we realize that special interest groups exist within the critical thinking movement and need to develop along a manifold of directions. We will be accommodating this need in two ways: 1) by classifying all presentations with a label that indicates possible special interest concerns (e.g., G, E, JH, HS, K-12, CC, U, etc.), and 2) by setting up an early meeting time on Tuesday morning (7:45-8:45) for groups to organize themselves into a network (See page 103 for more information on these special interest meetings.)

Virtually all sessions have been scheduled for 1 1/2 hours to maximize opportunities for questions and discussion. The evening “social” hours are intended to be an integral part of the conference. We are encouraging all of the presenters to make themselves available for the social hours so that the kinds of extended exchanges which are often not feasible in question and answer sessions might be facilitated.

The video programming is intended to augment the presentations by providing some models of instruction and what may come of it (e.g., tapes of students modeling critical thinking skills). Additionally, there will be some video programs shown which can be ordered as discussion starters for inservice training (i.e., tapes such as “Critical Thinking and History”, “Critical Thinking and Science”, and “Dialogical Practice, Program I”).

CONFERENCE THEME: TEACHING CRITICAL THINKING: SKILL, COMMITMENT, AND THE CRITICAL SPIRIT, KINDERGARTEN THROUGH GRADUATE SCHOOL

The conference theme has been selected to give participants a central concept by means of which they can understand the basic relationships between all of the various presentations. The field of critical thinking research and instruction approaches is rich and diverse, but there are common core concepts and insights which can be used to organize that diversity and render it coherent.

There is no question, for example, that there are a body of intellectual skills presupposed in critical thinking, skills which have broad application across the full range of human thought and action. Whenever humans act or think they conceptualize or give meanings to their action and thought. These meanings or conceptualizations may be more or less clear (hence the importance of skills of clarification). These meanings organize and give expression to “information”, which may be more or less accurate, well-justified, and complete (hence the importance of skills for the gathering, processing and assessing of information). They are based upon beliefs some of which we take for granted (hence the importance of skills for locating and assessing assumptions). They build toward or entail consequences and implications (hence the importance of skills for pinning down and assessing consequences and implications). Finally, human action and thought is based upon and creates meanings within some perspective, point of view, or world view (hence the importance of skills which locate the perspective or point of view within which a given action or line of thought is developed).

But critical thinking is not just about intellectual skills, for intellectual skills can be used in a variety of ways, some of which are inconsistent with the foundation values of critical thinking: open- or fair-mindedness and a concern to apply the same rigorous standards of evidence and proof to our own thinking—especially that which serves our vested interest—as we do to others. It is easy, of course, to be “critical” when we are hostile to persons or belief systems, very difficult when we are strongly predisposed to favor persons or belief systems. Our egocentric or sociocentric biases may act as blinders to narrow our critical thinking to what are fundamentally...
self-serving uses of it. This problem was identified in ancient Greece by Socrates and Plato as the problem of sophistry. We know it in the modern world as the problem of demagoguery, propaganda, closed-mindedness and self-deception. This, of course, is not simply a matter of stupidity or of conscious evil.

What it does mean is that critical thinking skills can be used to defeat the ends of critical thinking. Or, less extreme, a person may not yet have learned how to organize and use his or her critical thinking skills with the same degree of consistency within domains where there is emotional blockage. All of the above highlights the need to emphasize the affective dimension of critical thinking, the dimension of values, commitments, and traits of mind. This does not mean by the way that we need to condition or indoctrinate students in an affective way, for the critical spirit can be nurtured only while actually practicing critical thinking in some (cognitive) way. One cannot develop one's fair-mindedness, for example, without actually thinking fair-mindedly. One cannot develop one's intellectual independence, without actually thinking independently. This is true of all the essential critical thinking traits, values, or dispositions. The crucial need is to develop instruction in such a way that, for example, fair-minded and independent thinking are required by the very nature of what is done. Examples of assignments and practices that foster the critical spirit can be found in the Handbooks on Critical Thinking, K-6, which have been published by the Center.

All of the presenters have been asked to make the relation of their presentation to these distinctions apparent to their audience so that the relationships of the various presentations to each other will be more clear. Participants should feel free to question presenters in this regard to ensure that they understand whether the presenter is simply focusing on the intellectual skills (without regard to the problem of transfer to domains of vested interest and ego-involvement) or whether the presenter is conceiving of his or her objective as bearing upon this higher order use of critical thinking.
10:30-12:00 noon

Carol Tavris
Thinking Critically about Emotion—and the Role of Emotion in Critical Thinking
IVES: Warren  G

Perry Weddle
Deeds and Words: Critical Thinking Activities through Critical Thinking Vocabulary
IVES 119  G, K-U

William Dorman, Carl Jensen, Lenore Langsdorf
Critical Thinking and the Media
SU:MP  G

Robert Swartz
Integrating Teaching for Thinking into Mainstream Classroom Instruction
STEV 1002  K-12

M. Neil Browne
Designing Faculty Development Programs for Integrating Critical Thinking Across the Curriculum
ART 108  G, CC, U

Vincent Ryan Ruggiero
Profile of a “Thinking Person”
DAR 108  G

Gerald Nosich
Teaching Critical Thinking Across the Curriculum
CS 68  G, CC, U

Robert Ennis
Writing Critical Thinking Tests, Part I
STEV 3008  G

Connie DeCapite
Language Arts and Critical Thinking for Remedial and ESL Students
DAR 112  G, K-12

Harvey Siegel
Critical Thinking and Indoctrination
STEV 3046  G, CC, U
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| 10:30-12:00  | Mark Weinstein: Critical Thinking and Moral Education
STEV 3040   |
| (cont.)      | 12:00-1:30 pm Lunch                                                     |
| 1:30-3:00 pm | David Perkins: What Makes Science Concepts Hard to Understand?
IVES: Warren |
|              | Jan Talbot: Effective Integration of Critical Thinking Across the Curriculum:
Johnny and Jane CAN Think
IVES 119 K-12|
|              | Robert Swarts, Richard Paul, Luiza Amodeo: What is the Appropriate Role of Critical Thinking in Pre-Service Education?
SUMP G       |
|              | John Chaffee: Teaching Critical Thinking Across the Curriculum
ART 108 CC, U|
|              | J. Robert Hanson: Critical Thinking: Teaching Strategies to Involve All Students in Higher Level Cognitive Processes
DAR 108 K-12|
|              | Stephen Norris: Observation in Science Education
CS 68 G      |
|              | Robert Ennis: Writing Critical Thinking Tests, Part II
STEV 3008    |
|              | Gerald Nosich: Mini-Critical Thinking Course: Constructing Arguments for Opposing Points of View
STEV 2049 G  |
|              | Ogden Morse: Subject Matter and Moral Development in Domain Specific Classrooms
DAR 112 HS   |
|              | Mark Weinstein: Integrating Thinking Skills into the Curriculum
STEV 3046 K-12|
|              | Art Pearl: Thinking Critically about Critical Issues
STEV 3049 G  |

| 3:15-4:45 pm | Eugene Garver: Faculty Development for Critical Thinking
NICH 173 CC, U|
|              | Richard Paul: Critical Thinking Staff Development: Developing Faculty Critical Thinking and Critical Teaching Skills
IVES: Warren G|
|              | Perry Weckle: But That's Just Your Opinion
IVES 119 JH-U|
|              | Greg Sarris, Abelardo Brenes, Angel Villarini: Critical Thinking and Third World Communities
SUMP G        |
|              | John Prihoda: Critical Thinking and Ethics in Education
STEV 1002 G  |
|              | Vincent Ryan Ruggiero: Teaching Thinking Across the Curriculum: A Holistic Approach
ART 108 G    |
|              | Douglas Martin: A Definition of Critical Thinking for Science Instruction, K-12
DAR 108 K-12 |
|              | William Dorman: Coming to Grips with the Mass Media
CS 68 G      |
|              | M. Neil Browne, Stuart M. Keeley: Questioning Strategies that Facilitate Critical Thinking
STEV 3008 G  |
|              | Harvey Siegel: Mini-Critical Thinking Course: Epistemological Underpinnings of Critical Thinking
STEV 2049 G  |
|              | Connie DeCapite: Critical Thinking Through Thematic Units
DAR 112 JH-U |
|              | John May: Teaching By Bad Example: Optimal Cases for Helping Intermediate Students to Think Critically, Part I
STEV 3049 CC, U|
|              | Ralph Johnson: Why Do We Reason Poorly? Psychodynamics vs. Psychologic
NICH 173 G CC, U|
|              | Marlys Mayfield: Teaching Recognition of Viewpoint: Working with Student Naivete About Where Ideas Come From
STEV 3040 G  |
MONDAY, AUGUST 3

8:45-10:15 am
Richard Paul, David Perkins
What's In a Name? “Thinking” vs. “Critical Thinking.”
IVES: Warren  G
John Chaffee, Anthony Corso, Eugene Garver, Carol Knight
Critical Thinking Across the College and University Curriculum
SU:MP  CC, U
Linda M. Phillips
The Design and Development of a Test of Inference Ability in Reading Comprehension
STEV 1002  G
Ralph Johnson
The Whole Enchilada: An Outline of a Theory of Reasoning
ART 108  G, CC, U
Marek Zelazkiewicz
DAR 108  G
Robert Swartz
A Framework for Infusing Critical Thinking into Science Instruction
CS 68  K-12
Debbie Walsh
The AFT Critical Thinking Project: The Hammond, IN Pilot
STEV 3008  K-12
Joanne Kurfiss
Understanding Knowing: Developing Foundations for Critical Thinking at the College Level
STEV 2049  CC, U
Thomas Jackson
Philosophy for Children: A Hands-on Demonstration, Primary Level
DAR 112  E
Marlys Mayfield
Grounding Critical Thinking in Observation Skills
STEV 3049  G

10:30-12:00 noon
Doug Minkler
Art is not a Mirror Held Up to Reality But a Hammer with Which to Shape It
IVES 119  G, K-12
Will Robinson, Marek Zelazkiewicz, Frans van Eemeren, Rob Grootendorst, Alec Fisher, Richard Paul
Critical Thinking in European Education
SU:MP  G
Vincent Ryan Ruggiero
Dispositions—The Neglected Aspect of Thinking Instruction
STEV 1002  G
Kate Sandberg
Reflective Thinking: Variations on a Theme
ART 108  G
Mark Weinstein
Philosophy for Children: Hands-on Workshop
DAR 108  Grades 5-6
Perry Weddle
What a Lovely Generalization!
CS 68  JH-U
Anthony Corso, Dianne Romain
Faculty Development in Critical Thinking
STEV 3008  JH-U
Ralph Johnson
Mini-Critical Thinking Course: Critical Thinking and Advertising
STEV 2049  G
Connie Missimer
Humor and Other Fun Ways to Achieve Empathy
DAR 112  G
Stuart Keeley  
*Beyond the Term Paper: Designing Assignments that Encourage Critical Thinking*
STEV 3046  G

Ann Kerwin  
*Ignorance, Illumination and Inquiry*
STEV 3049  G

Rita Manning  
*Workshop in Dilemmas, Role-Playing and Simulation in Moral Education*
NICH 173  G

Roy Erickson  
*Celebrating the Bicentennial of the Constitution through Materials and Activities which Emphasize Critical Thinking*
STEV 3040  K-12

Jere Jones, Fred Korn  
*Strong Sense Critical Thinking: How to Probe Our Own Conceptual Framework*
NICH 166  G, CC, U

Joel Rudinow  
*How to Use the Media Critically, Part II*
STEV 1063  G  Space limited; Session to be taped; No late admissions

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**Lunch**

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Rexford Brown  
*Who's Accountable for Thoughtfulness: Policy and the Higher Literacies*
IVES: Warren  G

Harvey Siegel, David Perkins, Carol Tavris, Wes Hiler  
*Psychology and Critical Thinking: The Affective Dimension*
SU:MP  G

Vincent Ryan Ruggiero  
*The Administrator's Role in Thinking Instruction*
STEV 1002  G

Joanne Kurfiss  
*Successful Models for Developing Critical Thinking in the College Classroom*
ART 108  CC, U

Kathleen Dean Moore  
*Gullibility and Mistakes in Scientific Reasoning*
DAR 108  HS, CC, U

Lou Miller  
*Critical Thinking and Self-Growth*
CS 68  G

John Barell  
*Long Range Staff Development for Fostering Critical Thinking*
STEV 3008  K-12, U
Monday, August 3
3:15-4:45 cont.

Debbie Walsh
Integrating Critical Thinking Skills into the K-12 Curriculum
DAR 108  K-12

Connie Missimer
Critical Thinking and Intellectual Virtues: Can You Have Your Cake and Eat It Too?
CS 68  G

Sharon Bailin
The Myths of Creativity
STEV 3008  G

Susan Olds
Using a "Thinking Jigsaw" to Explore Supreme Court Decisions
STEV 2049  JH, HS

Dorothy Kobak
Raising the C.Q. (Caring Quotient)—Edu-Caring: Teaching Children to Think Caring
STEV 3049  G

J.S. Porter
How to Expose and Correct Assumptions
NICH 173  G

Rob Grootendorst, Frans van Eemeren
Argumentation and Fallacy Analysis in a Pragma-Dialectical Perspective, Part 2
STEV 3040  U

Mark Battersby
Arguments and Individuals: A Theoretical Look at the Status of the Arguer in the Assessment of Arguments
STEV 3046  U

5:30-8:00 pm

Banquet (Purchase tickets at Conference Desk; space limited.)
Dining Commons

8:00-11:00 pm

Beer and Wine Social
Dining Commons

Informal Exchange of Ideas
Dining Commons Faculty Lounge

Videotape Program
Dining Commons Alcove

TUESDAY, AUGUST 4

7:35-8:35 am

Special Interest Groups

Elementary (K-6)  STEV 3046
Middle School (7-8)  CS 20
High School (9-12)  STEV 3008
Critical Thinking Staff Development  STEV 2049
Community College  DAR 108
4-year College/University  STEV 1002
Critical Thinking Literature/Language Arts  DAR 112
Critical Thinking in Social Studies  CS 68

Critical Thinking in the Arts  NICH 173
Critical Thinking in Science/Math  NICH 166
Critical Thinking Assessment  STEV 3049
Critical Thinking for Slow/Disadvantaged Learner  STEV 3040

8:45-10:15 am

Art Costa
What Human Beings Do When They Behave Intelligently and How They Can Become More So
IVES: Warren  K-12, G

Ralph Johnson, John Hoaglund, T. Edward Damer
Critical Thinking and Informal Logic: How Do They Relate?
SU:MP  CC, U

Greg Sarris
The Multi-Cultural Classroom as Model for the Teaching of Critical Thinking
STEV 1002  G

Bertram Bandman
The Role of Belief in Critical Thinking
ART 108  G, U

Glenn Irvin
The Loaded Case Against General Education
DAR 108  U

Joel Rudinow
Philosophy Comes Down to Earth: Critical Thinking in the Community College
CS 68  CC

Ken Bumgarner
Effective Design for Critical Thinking Inservice
STEV 3008  K-12

Ian Wright
Decision-making and Critical Thinking for Elementary School Students
DAR 112  E

Rob Grootendorst, Frans van Eemeren
Teaching Argumentation Analysis and Critical Thinking in the Netherlands
STEV 2049  G

Paul Baker
Preparing Well Informed Citizens: A Critical Thinking Approach for Social Studies
STEV 3046  JH-U

Corrinne Bedecarré, Sherry McCowan
Power Relations and Ideology in the Classroom
STEV 3049  G

James B. Freeman
Critical Thinking and the Life of the Mind
NICH 173  G, CC, U
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<td>Alec Fisher</td>
<td>Critical Thinking about Thomas Malthus</td>
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<td>Ann Kerwin</td>
<td>Making the Most Out of Nothing: Looking Critically and Creatively at Absences, Silences, Things Ignored and Things-to-be</td>
<td>NICH 166 G</td>
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<td>12:00-1:30</td>
<td>David Perkins</td>
<td>What the Mind is Made Of</td>
<td>IVES: Warren G</td>
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<td>Ralph Johnson, Lenore Langsdorf, Perry Weddle, Robert Ennis</td>
<td>Self-Serving Versus Fair-Minded Critical Thinking: How Important is the Weak Sense/Strong Sense Distinction?</td>
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<td>Mark Weinstein, Ken Bumgarner, Fran Claggett</td>
<td>What Are State Departments of Education Doing About Critical Thinking?</td>
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<td>Michael Rich</td>
<td>The Use of the Emotions in Critical Thinking</td>
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<td>Angel Villarini</td>
<td>Teaching Critical Thinking Through Moral Deliberation: An Interdisciplinary Approach to the Humanities</td>
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<td>Dianne Romain</td>
<td>Critical Thinking, Creativity, and Play</td>
<td>STEV 3008 K-12, G</td>
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<td>M. Neil Browne, Stuart Keeley</td>
<td>Mini-Critical Thinking Course: The Unnecessary Tension Between Values Analysis and Critical Thinking</td>
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<td>John Barell</td>
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<td>Donald Hatcher</td>
<td>Critical Thinking Techniques and Methodological Absolutism</td>
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<td>Mini-Critical Thinking Course: What the Fallacies Can Teach Us About Good Arguments</td>
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<td>1:30-3:00 pm</td>
<td>Judi Hirsch</td>
<td>Teaching Critical Thinking to Students in Remedial and Special Education Classes: Feuerstein's Theories on the Nature of Learning and Intelligence</td>
<td>NICH 173 K-12</td>
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<td>Alec Fisher</td>
<td>Critical Thinking and A Key Question</td>
<td>STEV 3040 G, CC, U</td>
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<td>Judith Collison</td>
<td>Critical Thinking in the Classroom: Information, Implication, Inference</td>
<td>NICH 166 K-12, G</td>
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<td>Lunch</td>
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<td>10:30-12:00</td>
<td>Jan Talbot</td>
<td>Teaching Thinking Strategies Across the Curriculum: The Higher Order Thinking (H.O.T.) Project</td>
<td>IVES 119 K-12</td>
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<td>Richard Paul, Carol Tavris</td>
<td>Culture and Critical Thinking: The Danger of Group- or Culture-Bound Thought</td>
<td>SU:MP G</td>
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<td>Paul Baker, Ian Wright, Chuck Staneart</td>
<td>Critical Thinking and Social Studies</td>
<td>STEV 1002 G</td>
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<td>Donald Lazere</td>
<td>Bias in Academia</td>
<td>ART 108 G</td>
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<td>Ann Kerwin, Marlys Witte</td>
<td>Learning and Teaching the Unknown Pathway to Finding &quot;Intellectual Virtues&quot;</td>
<td>DAR 108 G, U</td>
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<td>Donald Hatcher</td>
<td>Critical Thinking Techniques and Methodological Absolutism</td>
<td>CS 68 CC, U</td>
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<td>T. Edward Darner</td>
<td>Mini-Critical Thinking Course: What the Fallacies Can Teach Us About Good Arguments</td>
<td>STEV 2049 G</td>
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<td>Carol La Bar</td>
<td>Critical Thinking Distinctions</td>
<td>DAR 112 HS, G</td>
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(Tuesday, August 4
1:30-3:00 cont.)
Nancy Kubasek
Selection and Design of Textbooks and Supplements that Foster the Development of Values Analysis and Critical Thinking Skills in the Business Classroom
STEV 3046 CC, U

John Hoaglund
Critical Thinking and Teaching Informal Fallacies: The Old Approach and the New
STEV 3049 CC, U

Judi Hirsch
Combating the Tyranny of Standardized “Intelligence” Tests
NICH 173 K-12, G

Abelardo Brenes
Critical Thinking in Costa Rica
STEV 3040 G

C. Blaine Carpenter
Teaching and assessing Critical Thinking in an Outcome-focused, Assessment Based General Education Curriculum
NICH 166 CC, U

Nancy Lyons
Dance-Critical Thinking with the Body
IVES: Warren G

Donald Klein, Paul Wheatcroft, John Feare, John Prihoda
Critical Thinking in Community Colleges: The Title Five Mandate in California
SU:MP CC

Fran Claggett, Jan Talbot, Linda Phillips
Reading, Writing, and Critical Thinking
STEV 1002 G

Alice Iaquinta, Sharon Scull, Chuck Wiederhold, Joel Peterson, Theresa Booker
Critical Thinking Programs: Strategies for Implementing the Teaching of Critical Thinking
DAR 108 G, CC, U

Gus Bagakis
Teaching Critical Thinking—A World View Approach
ART 108 G, U

Dianne Romain, Sarah Taylor
Academic Partnership: Critical Thinking and Social Studies
CS 68 JH, HS

A.J.A. Binker, Karen Jensen
Lesson Remodelling for Critical Thinking (K-6)
STEV 3008 E

James B. Freeman
Mini-Critical Thinking Course: Argument Diagramming
STEV 2049 G

Susan Olds, Joel Rudinow
Critical Thinking and the Constitution: The Bicentennial Connection
DAR 112 5-12, CC

3:15-4:45 pm

8:00-11:00 pm

Eugene Garver
Rhetoric and Logic in Critical Thinking
STEV 3046 CC, U

Vivian Rosenberg
Introducing Affective Awareness as a Critical Thinking Skill
STEV 3049 G

M. Neil Browne, Stuart M. Keeley, Nancy K. Kubasek, Andrea M. Giampetro
Are We Really Teaching Critical Thinking?: How Would We Know?
NICH 173 G, CC, U

Priscilla Agnew
The Critical Thinking Worksheet
STEV 3040 JH-U

Richard L. Mendelsohn
Logic and Critical Thinking
NICH 166 CC, U

Beer and Wine Social
Dining Commons
Informal Exchange of Ideas
Dining Commons Faculty Lounge
Videotape Program
Dining Commons Alcove

WEDNESDAY, AUGUST 5

8:45-10:15 am

David Perkins, Richard Paul, Sharon Bailin, Lou Miller
Can One Think Critically Without Thinking Creatively? Can One Think Creatively Without Thinking Critically?
SU:MP G

Abelardo Brenes
Critical Thinking and the Ethics of Development
STEV 1002 G

Donald Hatcher
Critical Thinking and Ethical Absolutes
ART 108 CC, U

Vivian Rosenberg
Modifying Traditional Writing Instruction: Strategies to Facilitate Critical Thinking
DAR 108 G, HS-U

Thomas Leckly, Rita Manning
On Teaching Creativity, Part I
CS 68 G

John Hoaglund
Mini-Critical Thinking Course: Stimulating Thinking About Thinking with Logical Puzzles
STEV 2049 G
Joe Edwards, Allan Edwards, David Duran
Strategies for Critical Thinking Implementation at North Humboldt
Union High School District
DAR 112 HS
Sheldon Berman
Considering Multiple Perspectives: An Exercise in Methodological Belief
STEV 3046 K-12, G
Rosemarie Bezerra-Nader
Critical Thinking and English—An Integrated Curriculum
STEV 3049 JH-U, G
George Freund, Jack Perella
The Role of Philosophy and Rhetoric in Critical Thinking Instruction
STEV 3040 CC, U
C. Grant Luckhardt
Assessing the Credibility of Authorities
NICH 166 CC, U
Perry Weddle, Jan Talbot, Robert Ennis
State Wide Critical Thinking Testing in California: What Has It and What Has It Not Accomplished?
SU:MP G
Vivian Rosenberg, Roberta Kern, Vincent Ryan Ruggiero
Exploring the Interaction of Thoughts, Feelings and Emotions in Developing Critical Thinking
STEV 1002 G
Judith Collison
Critical Thinking in the Classroom: Setting Goals
ART 108 K-12, G
Thomas Leddy, Rita Manning
On Teaching Creativity, Part II
CS 68 G
William Payne
American History on Trial
STEV 3008 JH-HS
Carol La Bar, Ian Wright
Mini-Critical Thinking Course: Practical Reasoning and Principle Testing
STEV 2049 G
Dianne Romain, Sarah Taylor
Critical Thinking and High School Science
STEV 3046 HS
Maurice A. Finocchiaro
Three Ideals of Critical Thinking (Socrates, Galileo, Marx)
STEV 3049 CC, U
Lenore Langsdorf
Reflection, Interpretation, and the Critical Spirit
NICH 173 G, CC, U
Priscilla Agnew
Teaching Fallacies
STEV 3040 JH-U
Lunch
Judi Hirsch, Gus Bagakis, Richard Lichtman
Taking Care of Ourselves
SU:MP K-U
Fran Claggett
The California Assessment Program Direct Writing Assessment
STEV 1002 HS
Jenna K. Brooke
Forces Against Critical Thinking—Dealing with the Moral Majority
ART 108 G
Rosemarie Bezerra-Nader
Critical Thinking—An Antidote for Negative Stress
CS 68 K-12, G
Thomas Warren
What’s Wrong With the “Critical Thinking” Movement?
STEV 3008 G, CC, U
William Exton, Jr.
A Proven Approach to and a Primary Resource for the Teaching of “Critical Thinking”
STEV 2049 G
John D. May
Teaching By Bad Example: Optimal Cases for Helping Intermediate Students to Think Critically, Part II
STEV 3049 CC, U
James B. Freeman
Meaning, Commitment, and the Critical Spirit
NICH 173 G, CC, U
John Feare
Critical Thinking and the Cultivation of Intellectual and Moral Virtues Within a Theological Dimension, K-Graduate School and Beyond
NICH 166 G, CC, U
Randall Ackley
Educating a Trained Society: Emotional Maturation/Development
CS 20 U
Wrap-up Session
IVES: Warren
Agnew, Priscilla  
**Teaching Fallacies**

In teaching fallacies, I have encountered a challenge: students enthusiastically learn the traditional fallacies and then proceed to find fallacies everywhere, even in good arguments. For example, once the appeal to authority is presented, students refuse to accept any authority as appropriate. Because I feel that the fallacies are helpful tools for critical thinkers, I have restructured my presentation of the fallacies by introducing different modes of arguments which have a Good Form as well as a corresponding Fallacious Form. In this workshop, these distinctions will be explored. In addition, a new worksheet for evaluating generalizations and causal arguments will be demonstrated.

(August 5 10:30-12:00 STEV 3040)

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Agnew, Priscilla  
**The Critical Thinking Worksheet**

The Critical Thinking Worksheet is a pedagogical tool for introducing students to critical thinking. Many students acquire the technical skills such as identifying premises, assumptions and conclusions, distinguishing between strong and weak arguments, clarifying ambiguous terms and so on. However, these students often experience frustration in grasping the overall structure of the project of critical thinking. The worksheet provides a visual aid for integrating all of these technical skills. In this workshop, the use of the worksheet will be demonstrated. Participants will have the opportunity to experience the process of critical thinking from the point of view of a beginning student of critical thinking. This session is especially intended for those who are introducing critical thinking skills to high school and college students.

(August 4 3:15-4:45 STEV 3040)
Bagakis, Gus
Professor
Department of Philosophy
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94132

The range of what we think and do is limited by what we fail to notice. And because we fail to notice that we fail to notice, there is little we can do to change until we notice how failing to notice shapes our thoughts and deeds.

R. D. Laing

In this presentation I will discuss how and why I introduce a world view perspective to students. I find that when students begin to consider issues, they often interpret and analyze them from a particular standpoint which they assume is natural. In this case the use of a world view approach is a powerful tool with which to assist students to outstrip their egocentrism.

I have classified the many perspectives that students hold into three world views: “wholistic”, “individualistic”, and “process”. We will discuss these world views and try some exercises to see if these three viewpoints are useful in discussing racism and sexism.

I will further argue that a critical thinking perspective is consistent with the process world view. I will also point out some of the pedagogical difficulties and student reactions to the world view approach.

(August 4 3:15-4:45 ART 108)

Bagakis, Gus
Co-Presenters
Hirsch, Judi
Lichtman, Richard
Professor
Wright Institute
2728 Durant Avenue
Berkeley, CA 94704

In order to be effective models of critical thinking in the strong sense it is necessary for teachers to find ways of coping with an oppressive and alienating education system. Separation and competition as well as poor working conditions and poor pay make it difficult for teachers to be effective models. Join us for a discussion of ways to develop networks, cooperation and to empower ourselves so that we can most effectively teach our students.

(August 5 1:30-3:00 SU:MP)

Bailin, Sharon
The Myths of Creativity
Professor
Department of Educational Administration and Foundations
Faculty of Education
University of Manitoba
Winnipeg, Manitoba
Canada R3T 2N2

This presentation will involve a critical examination of some of the currently popular notions of what creativity is and how it can be developed. In particular, I will argue that there are serious problems both with the notion that there is a distinct creative process of thought which is different from ordinary logical thought and with the notion that it meaningful to speak of persons as being creative independent of their production of valuable products. The alternative view which will be proposed connects creativity with skills and rules, with critical inquiry, and with significant achievement.

(August 3 3:15-4:45 STEV 3008)

Baker, Paul J.
Preparing Well Informed Citizens: A Critical Thinking Approach for Social Studies
Professor / Author
Department of Educational Administration and Foundations
331 De Garmo Hall
Illinois State University
Normal, IL 61761-6901

This workshop addresses the problem of developing more sophisticated literacy in the social studies curriculum. Students are taught to bring reading and thinking together as an integral process. Social issues are examined through various active learning exercises. A systematic critical thinking model is presented that can be applied to a wide array of case materials: newspaper editorials, Time cover stories, chapters from textbooks, political speeches, articles from popular social science periodicals. The workshop will also explore numerous teaching-learning strategies that use critical thinking skills inside and outside the classroom.

(August 4 8:45-10:15 STEV 3046)
Barell, John
Professor
Montclair State College
Upper Montclair, NJ 07043

Networking Electronically for Teaching Critical Thinking

In this session I would like to share with all interested persons the growing electronic networks among practitioners that are helping us reduce our isolation from one another. I will report on efforts to establish a local network among six school districts as well as efforts to link ASCD's Elementary School Consortium on Teaching Thinking.

(August 4 10:30-12:00 DAR 112)

Bandman, Bertram
Professor
Department of Philosophy
Long Island University
University Plaza
Brooklyn, NY 11201

The Role of Belief in Critical Thinking

Several writers identify critical thinking with belief, e.g. Ennis. But beyond a cryptic remark or so, little has been shown about the role of belief in critical thinking. I try to show how appeal to critical thinking helps us decide what is worth believing. Justifying beliefs is sometimes expressed by referring to a right to believe. This presents a dilemma. In one sense, one can believe whatever one wishes. Yet, one prefers the company of people with true, right or justified beliefs. What then makes a belief worth holding? A four part proposal is designed to help resolve this dilemma, and to help us decide what is worth believing.

(August 4 8:45-10:15 ART 108)

Barell, John
Professor
Department of Curriculum and Teaching
Montclair State College
204 Chapin Hall
Upper Montclair, NJ 07043

Long Range Staff Development for Fostering Critical Thinking

Teaching thinking K-12 and in college involves developing long range programs based upon current research on effective school change, adult role re-orientation, curriculum development and the nature of critical thinking. This session describes a process in place in public schools and college stressing needs assessment, creating the environment for critical thinking, identifying appropriate models of thinking, goal setting and skills education in critical thinking and problem solving. Teaching for "intellectual humility" requires creating supportive, collegial environments over long periods of time and may involve nurturing new roles for adults.

(August 3 1:30-3:00 STEV 3008)

Battersby, Mark
Professor
Department of Philosophy
Capilano College
North Vancouver, British Columbia
Canada V7J 3H5

Arguments and Individuals: A Theoretical Look at the Status of the Arguer in the Assessment of Arguments

It is widely agreed that the credibility or validity of an argument is generally independent of its author; failure to respect this principle is to commit the fallacy of *ad hominem*. The main exception to this principle is appeals to authority where those who lay their reputation on the line in support of a position become fair game for criticism. The traditional justifications of this fallacy were largely based on the study of formal arguments and it is not clear that such a position can be sustained when reflecting on informal arguments. The thesis of this paper is that the stature and credibility of the arguer plays a much more legitimate role in assessing argument than has normally been allowed and that therefore the application of the *ad hominem* fallacy criticism must be severely restricted.

(August 3 3:15-4:45 CS 20)

Barell, John
Co-Presenter
Perkins, David

Supervision for Critical Self-Reflection upon Teaching

How do we help teachers engage in critical thinking in the 'strong sense' and develop those dispositions, such as intellectual humility and openness to diversity, that are fundamental to critical inquiry? In this session, David Perkins and I will model a teaching episode followed by a post observation conference. The purpose of the conference is to exemplify processes designed to help adults become more analytic and reflective about their own performance. This process is related to the research on staff development, adult growth, metacognition and achievement motivation.

(August 3 3:15-4:45 IVES: Warren)
Berman, Sheldon  Considering Multiple Perspectives: An Exercise in Methodological Belief

Conflict situations breed “us-them” polarizations and simplistic positions. Through understanding multiple perspectives, we can transform these situations into mutual problem-solving opportunities. ESR has been examining educational strategies which help students tolerate the complexity of conflict situations, understand perspectives other than their own, and find common ground among competing positions. This workshop focuses on one practical exercise in considering multiple perspectives.

(August 5  8:45-10:15  STEV 3046)

Berman, Sheldon  A Thinking Skills Model for Teaching About Controversial Issues

Students need to confront our most important social and political problems so that they can feel connected to the larger society and enter the adult world as informed and responsible decision makers. But when we teach about controversial issues—the possibility of nuclear war, threats to the environment, and issues of social injustice—we find that students often seek simple answers to complex problems. They have difficulty tolerating the absence of “right” answers. In this workshop we will examine a process which helps students understand divergent positions on issues and the complex nature of controversial issues. It also helps students examine the logic, facts, assumptions, and values inherent in differing positions in order to strengthen their ability to reach their own conclusions. Curriculum materials that best support this process will be presented as well.

(August 4  10:30-12:00  STEV 3049)
Binker, A.J.A.  
Research Assistant  
Center for Critical Thinking and  
Moral Critique  
Sonoma State University  
Rohnert Park, CA 94928

Co-Presenter  
Jensen, Karen  
Teacher, Foreign Language  
Bellevue High School  
601 108th S.E.  
Bellevue, WA 98004

In this session we will briefly describe the lesson remodelling process, illustrating with samples created by teachers in the Pre-Conference Workshop. We will then lead a discussion on the strengths and weaknesses of the process.

(August 4 3:15-4:45 STEV 3008)

Bomstad, Linda  
Professor  
Department of Philosophy  
California State University, Sacramento  
6000 J Street  
Sacramento, CA 95819

Co-Presenters  
Forsyth, Linda  
Consultant  
Gifted and Talented Education  
California State Department of Education  
P.O. Box 944272  
Sacramento, CA 94244-2720

Fetzer, Phil  
Teacher  
Cordova Senior High School  
2239 Chase Drive  
Rancho Cordova, CA 95670

We will begin with a description of a two-year project that involved the following four parts: 1) a three-day capsule course in informal logic for thirty of the district's K-12 teachers; 2) a study of the teacher behaviors, classroom designs, and strategies that stimulate critical thinking; 3) an applications workshop where teachers wrote curriculum, developed peer coaching and clinical supervision techniques, and filmed their lessons for critique; and 4) the development of a trainer's box of films, curriculum, handouts, and lesson plans.

Materials will be displayed. Evaluation techniques and subsequent programs will be discussed.

(August 4 1:30-3:00 STEV 3008)

Brenes, Abelardo  
Professor  
Universidad de Costa Rica  
Ciudad Universitaria  
Rodrigo Facio  
Costa Rica, America Central

An adaptation of a Critical Thinking Program developed by Professor Eugene Meehan, of the University of Missouri—St. Louis, was experimentally applied in Costa Rica in 1982. The subjects were last year high school students and university freshmen. Whereas the program had been considered successful with similar age students in various educational institutions in the U.S., the results in Costa Rica were discouraging. The paper will attempt to analyze various factors that may have contributed to this result and consider, in more general terms, some of the problems inherent in cross-cultural translatability of critical thinking metaleanguanges and pedagogical strategies.

(August 4 1:30-3:00 STEV 3040)

Brenes, Abelardo  
Critical Thinking and the  
Ethics of Development

Societal development always poses choices which must be met by governmental agents, development specialists and the informed citizen. These choices relate to competing goals and images of what is to be considered a good life, as well as the diverse ways in which these are to be achieved. Most of the development models that have been guiding governmental and private agents in the past decades are now considered to be bankrupt, particularly in the context of Third World Development. This paper will examine what is the nature of these models, particularly from the point of view of their inherent value assumptions. It will be argued that rather than attempting to create new models of development which attempt to provide a complete set of answers to all normative questions involved in societal change, emphasis should be placed rather in creating those arrangements that will assure a fuller participation of citizens in choices referring to public policies. In order for this to be exercised effectively, critical thinking capacities will have to be promoted in the educational programs. These programs, in turn, need to give an important emphasis of attention to the normative dimensions of development from early on in the curriculum. Some general guidelines for such a program will be suggested.

(August 5 8:45-10:15 STEV 1002)
Phyllis Schafly and her Eagle Forum organization actively campaign to eliminate any educational approach in the classroom, including the teaching of "higher order critical thinking skills", which may result in children questioning attitudes, behavior, values, standards, beliefs, and so on, whether their own, those of their family and friends, the government, or society at large. The Eagle Forum in effect demands that educators support and participate in teaching students to accept, without question, anything they are told by those in positions of authority (namely those who hold the particular religious and political points of view espoused by the Eagle Forum and the Moral Majority at large).

Schafly and her followers, under the guise of preventing "child abuse" in the classroom, present a very real threat, in particular, to critical thinking programs and, in general, to the very democratic ideals on which this country was founded. Ms. Brooke will provide a brief overview of two of Schafly's works, then guide participants through a brainstorming session to develop strategies for dealing with and countering attacks against the educational process as it should exist in a democracy.

(August 5 1:30-3:00  ART 108)
Many teachers who desire to encourage critical thinking have no formal training in either critical thinking or pedagogical techniques that might stimulate such thinking. Administrators often respond with some form of faculty development program, designed to at least partially rectify those weaknesses. What works? What kinds of pitfalls do faculty development programs typically encounter? What can be done to encourage long-term effects of faculty development?

The format for this presentation will be a dialogue between someone planning a faculty development program and a potential participant in the program. The content of the dialogue will reflect both the author's research on effective faculty development, as well as his own experience as a facilitator at numerous faculty development workshops.

(August 2 10:30-12:00 ART 108)

Browne, M. Neil
Co-Presenter
Keeley, Stuart M.

Assuming that assessment of critical thinking frequently requires brief, essay instruments, this presentation describes a process for adapting essay tests, such as the Ennis-Weir Test, to particular educational contexts. The presenters will illustrate the process by sharing preliminary results from an assessment project comparing the critical thinking competencies of honors - nonhonors students, state university - liberal arts college students, and students taking a critical thinking course – students not taking a critical thinking course.

Scoring formats that make essay tests more sensitive to identifying various levels of critical thinking will be demonstrated. This workshop will provide an opportunity for those anticipating or experiencing assessment demands to design an approach that will contribute to improved teaching of critical thinking.

(August 4 3:15-4:45 STEV 3008)
A team approach has been used effectively in the State of Washington to institute and improve the teaching of critical thinking in elementary, secondary and higher education. Central to this team is effective networking that exists between and among the educational service districts (ESDs) and the curriculum and instruction leadership of the state office. Employee and curriculum organizations as well as parent, citizen and business associations have joined in this team effort focused on the teaching of thinking skills at all levels. Organizing and networking techniques employed will be discussed at the presentation along with approaches taken to garner support of the educational groups, citizen organizations, and outside enterprises.

(August 4  8:45-10:15   STEV 3008)
Collison, George  
Computer Coordinator  
Holyoke Public Schools  
500 Beech Street  
Holyoke, MA 01040

Supposing in Geometry and Algebra: Induction and Computers in the Mathematics Curriculum

Computers offer a very rich environment for both study and exploration in elementary and secondary school mathematics. They provide ways to promote interest and active involvement in mathematics, as well as assist students to become effective manipulators of symbols.

On the elementary and junior high level Logo offers a very rich environment to develop students' geometric intuition and problem solving skills. Geometry has always been a difficult subject to teach in a way that involves personal activity and discovery on the part of students. Traditionally, students of geometry are passive learners of truths discovered ages ago. A curriculum using Logo in intermediate grades and continuing with the Geometric Supposer at junior and senior high school does encourage learning through personal discovery and induction in geometry.

A general graphing utility like Compucalc can extend this personal, inductive approach into instruction in Algebra and Pre-Calculus. Programs such as these encourage a "problem solving lab" approach in these subjects that was not possible before. Limited-English speaking students have shown considerable success using math curricula based on this laboratory approach, as the center of learning is their own interaction with the mathematical material rather than concepts set out in a text they have difficulty comprehending.

(August 3 8:45-10:15 NICH 173)

Chaffee, John  
Mini-Critical Thinking Course: Critical and Creative Problem Solving

Solving problems effectively involves an integrated set of critical and creative thinking abilities. This workshop will introduce a versatile problem solving approach which is useful for analyzing complex problems in a creative and organized fashion. Participants will work through a sequence of problems, individually and in small groups, and will be given the opportunity to discuss and critically reflect on the learning process. In addition, participants will explore ways of incorporating problem solving approaches into the courses that they teach.

(August 3 1:30-3:00 STEV 2049)

Claggett, Fran  
The California Assessment Program Direct Writing Assessment

The CAP Direct Writing Assessments is an assessment program designed to involve teachers in all phases of composition curriculum reform. The California Assessment Program boldly assesses many of the different kinds of writing that make up an exemplary school writing program. In this session, participants will receive an overview of the types of writing currently tested at grade eight and proposed for high school, the innovative scoring system devised to assess the thinking and writing skills involved in each type of writing tested, and observations based on the first statewide reading conducted last month.

(August 5 1:30-3:00 STEV 1002)
Collison, George

Problem Solving in the Writing Curriculum

The heart of our writing curriculum is the development of critical thinking and problem solving skills through the Polya model. We use the word processor as a tool, the Polya model of problem solving as the framework, and a journalistic, expository format as the vehicle for teaching thinking skills through writing.

The journalistic, expository format best suits the needs of beginning students. The form is limiting but it does provide students with a model for clarity, conciseness, sense of audience, logical connection, and style that all students can appreciate. Also the structure demanded by journalistic writing gives beginning writers a framework to organize their thoughts as well as clear criteria to evaluate the work of others. Writing in this form is taught as a problem solving activity, with definite purpose and guidelines.

The four steps of the Polya model are: (1) define the problem; (2) choose a plan; (3) execute the plan, and (4) verify solution. Each of the four steps of the model has a direct application in process writing instruction.

Editing and classroom publishing techniques are described which detail how to develop problem solving skills using the Polya model in order to aid students in clarifying their thoughts and refining expository skills. The goal is to develop good thinking that is both critical and reflective. Computers are used to make students active participants in their own education.

(August 3 1:30-3:00 NICH 173)

Collison, Judith

Critical Thinking in the Classroom: Information, Implication, Inference

Critical thinking needs to be incorporated into classroom instruction in two stages. The first stage is the overall organization of the course in such a way that connections are made explicit. The second stage is the redesigning of actual units or lessons to promote critical thinking.

This workshop is based on the following ideas:

1) The goals should be organized around one or few germinal ideas. Information or concepts with internal connections are easier to learn than is unconnected material.

2) Learning must be put in perspective to provide continuity with the history of ideas, educational history of students and personal experiences of students.

3) Curriculum must be geared to encouraging independent and creative thought.

4) Goals of instruction need to be clearly stated to the students.

(August 5 10:30-12:00 ART 108)

Coodley, Lauren

Math Without Fear: Teaching Students Critical Thinking about Math Education, Technology, and the Tyranny of The Right Answer

I will share resources and ideas for using students' math anxieties as the bases for a critical approach to education and technocracy. Their past histories with math serve as a basis for a critique of how math was taught to them, of their own perceptions of mathematics, and of the role of thinking skills in math. They are empowered by understanding the hidden history of women in science and invention, and become aware of the critical ethical debate regarding the uses of science and math in projects such as "Star Wars" and genetic engineering. They learn to critique statistics, to write their own word problems, and to use problem-solving skills in their private lives. The history of the grade system and criticisms of testing are explored and debated. Educators' current debates on the teaching of mathematics are introduced. I will be sharing my syllabus, handouts, and classroom techniques.

(August 3 8:45-10:15 STEV 3040)
Teaching Critical Thinking with Fresh Real-Life Arguments

Damer, T. Edward
Professor / Author
Department of Philosophy
Emory and Henry College
Emory, VA 24327

This workshop will demonstrate ways of teaching a course in critical thinking which utilizes only current real-life arguments. The arguments treated in such a course are never more than a week old and are provided by the students from their own reading materials and personal experiences. Attention will be given to some suggestions for structuring such a course and to techniques for evaluating student-selected arguments.

(August 3 8:45-10:15 NICH 166)

What Human Beings Do When They Behave Intelligently and How They Can Become More So

Costa, Art
Professor / Author
Department of Education
California State University, Sacramento
6000 J Street
Sacramento, CA 95819-2694

Studies of efficient thinkers by Feuerstein, Sternberg, Glatthorn and Baron, and others have yielded some rather consistent characteristics of effective human performance. Studies of home, school, and classroom conditions, and the significance of meditative behaviors of parents and teachers are increasing our understanding of how to enhance the acquisition and performance of intelligent behavior. In this session, twelve qualities of human intelligent behavior will be cited; indicators of their presence and increased performance in the classroom will be identified; and school, home, and classroom conditions that promote their development will be presented.

(August 4 8:45-10:15 IVES: Warren)

Can Critical Thinking Save Us From Relativism?

Damer, T. Edward
Professor / Author
Department of Philosophy
Emory and Henry College
Emory, VA 24327

This paper will examine the question of whether the skills and techniques of critical thinking have the power to deliver us from the relativism which it was, in part, designed to combat. If two thinkers come to opposite conclusions about a substantive issue, can both of them still qualify as critical thinkers - at least with regard to that issue? Are contrary positions equally deserving of acceptance by critically thinking minds? If so, what are some of the implications of such a view? Shouldn't critical thinking help one to ascertain which idea or course of action is the best of the alternatives? If not, in what sense is critical thinking a worthwhile enterprise?

(August 3 1:30-3:00 NICH 166)

Teaching Critical Thinking in Third and Fifth Grade

D'Angelo, Edward
Professor
Department of Philosophy
University of Bridgeport
Bridgeport, CT 06601

A curriculum approach of integrating affective and cognitive dimensions in teaching critical thinking to third and fifth graders will be presented with special emphasis on using examples from literature, social studies and science.

(August 3 1:30-3:00 STEV 3049)

Mini-Critical Thinking Course: What the Fallacies Can Teach Us About Good Arguments

Damer, T. Edward

This section of the "mini-course" on critical thinking will demonstrate how a knowledge of the fallacies commonly found in arguments can inform and guide us toward the construction of good arguments. A fallacy is defined by the workshop leader as a violation of one of the three criteria of a good argument. Special attention will be given to the process of identifying such errors and of finding effective ways of turning poor arguments into better ones.

(August 4 1:30-3:00 STEV 2049)
DeCapite, Connie
Language Arts and Critical Thinking for Remedial and ESL Students

This workshop will focus on two specific components. Initially, the presenter will discuss the benefits of using critical thinking skills to help low achieving or ESL students develop language, reading and writing proficiency. The second part of the workshop will focus on how to develop and implement a language arts program consisting of activities utilizing critical thinking strategies and interdisciplinary materials. Teachers will receive units of study which were designed for use with Chapter I middle school students. However, since the strategies and content are universal in nature these units could be modified to serve any student.

(August 2 10:30-12:00 DAR 112)

DeCapite, Connie
Critical Thinking Through Thematic Units

This workshop explores how to develop a thematic unit through which central concepts are developed, expanded, clarified, reinforced and connected as one moves through a variety of studies and genres of literature. This allows for in-depth, holistic, interdisciplinary study through which critical thinking can flourish. This approach is compatible with the California State Language Arts Model Curriculum Standards. A sample one semester thematic unit entitled Critical Thinking, Ethics and Principles of Decision Making, suitable for intermediate and high school students, will be presented.

(August 2 3:15-4:45 DAR 112)

Dorman, William A.
Coming to Grips with the Mass Media

Critics from C. Wright Mills to Neil Postman have made a persuasive case for the possibility that the popular media do far more to undermine critical thinking than encourage it. Given that the cultural apparatus shows no sign of undergoing a major change in the near future, teachers must help their students devise strategies for living in a second-hand world manufactured to a significant degree by the news media and popular arts. Toward that end, the emphasis in this presentation will be on 1) analyzing problems in how the media present the world, particularly in the realm of foreign relations; 2) developing standards for judging media performance that go beyond personal opinion; and 3) devising instructional exercises for critical analysis of media.

(August 2 3:15-4:45 CS 68)
Feare, John  
Counselor  
Grossmont Community College  
8800 Grossmont College Drive  
El Cajon, CA 92020  

Critical Thinking and the Cultivation of Intellectual and Moral Virtues within a Theological Dimension, K-Graduate School and Beyond  

Progress toward a genuinely free society, entailing "not merely self-determination and self-realization, but rather the determination and realization of goals which enhance, protect, and unite life on earth" (Marcuse), would be facilitated by the cultivation of such intellectual/moral virtues as humility and empathy (Paul); of such "great virtues" as love of truth and generosity (Ginzburg); and of such "cardinal virtues" as honesty in submitting to criticism and justice in giving due recognition to others (MacIntyre). These are four of the increasing number of contemporary voices which dare use such terms as "moral" and "virtue," indicating that we have come, thankfully, a long way from the days in academe when nothing was "better" or "worse" than anything else but only "different."

But why are humility, empathy, love of truth, and generosity better than their opposites or than any other characteristics? The arguments will be presented that "virtues" remain simply a matter of preference or taste if not founded in a theological or transcendent dimension; that consideration of such ultimate questions should permeate the curricula, K-GS; that the deliberate cultivation of a "critical spirit" in all students is not only compatible with but essential to the development of meanings that come from the creative depths of the life force of increasingly autonomous individuals who encourage the autonomy of others; and that integrating teaching for critical thinking, moral integrity, and citizenship must be a collaborative effort among all facilitators of learning, e.g., instructors, librarians, and counselors.

Ample time will be allowed for discussion.

(August 3 10:30-12:00 STEV 3040)

Exton, William  
President  
Institute of General Semantics  
40 Central Park South  
New York, NY 10019  

A Proven Approach to and a Primary Resource for the Teaching of "Critical Thinking"  

General Semantics provides a systematic, workable discipline for relating effectively and relevantly to "the world outside the skin", including "the world of words". General Semantics helps us to be more aware of the assumptions that govern our own and others' evaluative processes; to discern more functionally whatever "solid territory" there may be behind the verbal "maps"; and even to infer the purpose of the "map maker".

(August 5 1:30-3:00 STEV 2049)
Finocchiaro, Maurice A.

Three Ideals of Critical Thinking (Socrates, Galileo, Marx)

I discuss a university course I have been teaching for about fifteen years and some of the philosophical problems and conclusions it suggests. It is an Introduction to Philosophy in which I present Socrates as a supreme exemplar of moral critique, Galileo as a classic model of methodological criticism, and Marx as a paradigm instance of social criticism, leading to a comparison and contrast among the three. I first explain the aims, content, structure, and rationale for such a course, and I report on some of my pedagogical experiences. Then I reflect on these three critical thinkers in order to formulate some conclusions, or at least some problems, concerning the nature of critical thinking; its relationship to moral critique and to other kinds of criticism; its relationship to philosophy, to logic, and to science; the variety of approaches to critical thinking; the relationship between this trichotomy and the current distinction between strong and weak senses, etc.

(August 5 10:30-12:00 STEV 3049)

Fisher, Alec

Critical Thinking about Thomas Malthus

Thomas Malthus published his famous Essay on the Principle of Population in 1798. It contains a beautiful argument which is still widely believed. I will use this example (and others if there is time) to illustrate a new method of critical thinking about arguments. Its essential principle is, 'If you understand a (factual) sentence you must be able to give at least some account of how you could decide whether it was true or false, what argument or evidence would show it to be true or false (otherwise you don't understand it at all). Using this approach reveals surprising flaws in Malthus' argument. To obtain maximum advantage from this workshop you should collect a copy of Malthus' basic argument and write your own answers to the attached questions before the class begins. Copies are available from the conference desk.

(August 4 8:45-10:15 STEV 3040)

Fisher, Alec

Critical Thinking and a Key Question

A novel method of argument analysis/critical thinking is demonstrated in the author's other workshop Critical Thinking about Thomas Malthus. This workshop is a discussion about the underlying principles of that method, especially 'If you understand a (factual) sentence you must be able to give at least some account of how you could decide whether it was true or false, what argument or evidence would show it to be true or false (otherwise you don't understand it at all). This workshop will look at some examples which present problems for informal logic and critical thinking and will show how the author's approach overcomes them. It will stress how far one can get by 'thinking things through for oneself' and it will answer some philosophical questions raised by this approach.

(August 4 10:30-12:00 STEV 3040)

Freeman, James B.

Critical Thinking and the Life of the Mind

This is an introductory presentation on the exciting breadth and depth of issues involved in critical thinking. Critical thinking will exhibit three distinctive hallmarks: it will be relevant; it will demand adequate reasons; and it will be rational. Thinking exhibiting just the first two hallmarks is weak sense critical thinking. Strong sense critical thinking demands the third condition be satisfied as well. But this is where the excitement begins, especially when we ask how rationality may be expressed. According to Aristotle, there are three goals of a rational person—Right Thinking (Believing), Right Willing, and Right Wanting. Thus we can claim that rationality embraces all of our mental life, since we may express our rationality in pursuing these three goals. We shall discuss what is involved in each of them. The issue of Right Wanting in particular leads directly into the issue of the critical spirit or the rational temper. This involves a willingness to test one's beliefs, choices, desires—it involves a sense of non-attachment. A commitment to strong sense critical thinking then involves the whole person and has ramifications for the whole of how we live. I hope my survey will spark discussion to further explore these issues.

(August 4 8:45-10:15 NICH 173)
Freeman, James B.

Meaning, Commitment, and the Critical Spirit

In my presentation, “The Human Image System and Thinking Critically in the Strong Sense” at last summer’s Fourth International Conference on Critical Thinking and Educational Reform, I discussed how one central factor in the growth of the image system—the totality of our images of self and world, together with our values and stereotypes—is the desire for meaning. I characterized this desire as a basic but nonetheless subjective human need. I argued for the need to have a comprehensible picture of the world, to feel at home in the universe. This can put us in jeopardy as critical thinkers, however, since we may develop images, with their component beliefs and attitudes, not based on how the world is but on how they may serve this subjective need.

This, however, may put the human quest for meaning in an unfairly negative light. Is the quest for meaning a basic human quest, as much a part of our being human as our thinking, knowing, talking, breathing? If this is so, then critical thinkers, insofar as they are human, are as much involved in seeking meaning as anyone else. I will look at scientific inquiry as one expression of this quest for meaning. Following Thomas Kuhn in The Structure of Scientific Revolutions, I shall explain how possibilities for meaning invite commitment. I will then explore whether these scientific commitments are antithetical to critical thinking or whether they reveal how commitment can be rational. Can we develop a charitable way of thinking critically about commitments? I will conclude by discussing rational commitment and the critical spirit.

(August 5 1:30-3:00 NICH 173)

Freeman, James B.

Mini-Critical Thinking Course: Argument Diagraming

Many recent texts have incorported a way of displaying the structure of arguments through so-called tree or circle-and-arrow diagrams. This is becoming a standard component of basic critical thinking instruction. The purpose of diagraming is to display perspicuously what supports what, or what is claimed to support what, in an argument. The utility of this is obvious. How can we cogently criticize or evaluate an argument unless we perceive what supports what? This unit of the critical thinking course will present argument diagraming as developed in my forthcoming text Thinking Logically: Basic Concepts for Reasoning (Englewood Cliffs, N.J.: Prentice-Hall, 1988). I shall present the four basic argument structures: convergent, serial, divergent, and linked. I shall point out how these structures may be motivated by very straightforward questions which could easily arise in concrete situations where two people are deliberating some issue. I shall also present some structural notions developed by Stephen Toulmin in The Uses of Argument (Cambridge: Cambridge University Press, 1958), which I have incorporated in the diagraming technique of Thinking Logically. Again, these notions can be motivated by questions arising in an argumentative discussion. I shall then apply this diagraming procedure to display the structure of various sample arguments.

(August 4 3:15-4:45 STEV 2049)
Garver, Eugene

Faculty Development for Critical Thinking

Saint John's University, with the assistance of the Joyce Foundation, has been able to hold workshops on critical thinking for faculty from a variety of disciplines. This session will begin with an informal account of those workshops, and then move to some general conclusions about what is successful and what should be avoided in faculty development projects on critical thinking. Participants considering similar projects, or with experience in faculty development in critical thinking, are especially invited, since the focus of the session should be on deciding which features of such projects are or should be transferable or replicable.

(August 2 1:30-3:00 NICH 173)

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Grootendorst, Rob

Teaching Argumentation Analysis and Critical Thinking in the Netherlands

Having sketched the situation with regard to the teaching of argumentation analysis and critical thinking in Western Europe, Frans van Eemeren explains in more detail the educational situation in the Netherlands. In particular, he will give an overview of the research done to develop textbooks and other educational tools for the teaching of informal logic. He differentiates between the various educational fields and traditions, and outlines the approaches which proved to have been the most fruitful. He will illustrate this by way of some practical examples.

Having sketched the Dutch education system, Rob Grootendorst explains in which types of schools argumentation analysis and critical thinking are being taught, and on what level. In particular, he describes the methods used in the curricula and the position taken by this type of education in the curriculum as a whole. Using the Faculty of Law as an example, he shows the various components of one such curriculum as far as informal logic is concerned. He also indicates in what other fields argumentation theory is applied in the Netherlands.

(August 4 8:45-10:15 STEV 2049)

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Glaser, Edward M.

Using the Watson-Glaser Critical Thinking Appraisal (CTA) As a Teaching as well as Testing Tool

Prior to this session at the conference, Form A of the CTA will be administered to a group of students. From this group, several individuals who scored low but give other evidence of having superior intelligence and up-to-grade-level reading comprehension skills will be invited to participate in a video-taped feedback by use of a modified Socratic dialogue session related to performance on the CTA. The tape from the interaction with one such student will be played and discussed at the conference session. The expectation is that by leading the student to examine his/her own reasoning, the individual will come to see principles (not just the logically correct answers to test items that had been answered incorrectly), and achieve a significantly higher score on retest with Form B of the CTA. The actual scores on the two Forms will be reported, with interpretive commentary.

(August 3 3:15-4:45 STEV 1002)
Hanford, George Unexpected Connections
President Emeritus
The College Board
45 Columbus Avenue
New York, NY 10023
An educational bureaucrat's interest in critical thinking has led to some unexpected encounters with such diverse topics as legislation, hula hoops, Howards End, the bulls of Pamplona and the Sistine Chapel—encounters generated by the growing influence of the critical thinking movement.

(August 2 1:30-3:00 STEV 1002)

Grootendorst, Rob
Co-presenter
van Eemeren, Frans H.
Argumentation and Fallacy Analysis in a Pragma-Dialectical Perspective, Parts 1 and 2
Starting from the theoretical background sketched in their book Speech Acts in Argumentative Discussions (1984), van Eemeren and Grootendorst systematically point out that argumentation discourse can be analyzed as part of a critical discussion between two parties who are trying to resolve a dispute and that fallacies can be analyzed as violations of a code of conduct aimed at furthering such a resolution. For this purpose Searlean insights concerning speech acts and Gricean insights concerning co-operative verbal interaction are integrated into a comprehensive approach to communication. This approach is used by van Eemeren to deal with the problems encountered when interpreting argumentation discourse and when analyzing complex argumentation.

Having supplied the instruments for examining the stages in which a critical discussion develops, rules will be suggested for each stage, and fallacies analyzed as specific violations of these rules. In this way, an endeavour will have been made to lay new and sound theoretical foundations for the analysis of argumentation and for systematically detecting and characterizing fallacies. Starting from this pragma-dialectical perspective, van Eemeren will concentrate upon the problems concerning argumentation analysis, whereas Grootendorst will concentrate on problems concerning fallacy analysis. In both cases practical examples will be presented to illustrate the main points.

(H August 3 1:30-3:00 STEV 3040 Part 1)
(H August 3 3:15-4:45 STEV 3040 Part 2)

Hanson, J. Robert
President
Hanson, Silver, Strong & Associates, Inc.
Corporate and Publishing Offices
Box 402
Moorestown, NJ 08057
This presentation will assist participants in better understanding different styles of thinking, and the use of particular teaching strategies to deliberately invoke different forms of the higher order though processes. A model for appraising different forms of critical thinking will be presented and strategies will be demonstrated for concept attainment, concept formation and metacognition.

(August 2 1:30-3:00 DAR 108)

Hatcher, Donald
Director
Center for Critical Thinking at Baker University
Baldwin City, KS 66006
This presentation will examine ways that critical thinking can be employed to help students discover ethical principles and avoid the pitfalls of ethical relativism when asked to evaluate particular social and ethical problems.

(August 5 8:45-10:15 ART 108)

Hatcher, Donald
Critical Thinking Techniques and Methodological Absolutism
It has been argued that the techniques employed by most critical thinking texts are overly analytic and guilty of methodological absolutism, that such techniques stultify student creativity and tend to create an illiberal attitude of intolerance towards alternative approaches. I shall argue that such criticisms are unreasonable; that critical thinking courses need to be even more analytic because any method of evaluation will ultimately be subject to the canons of logical analysis; that knowledge of critical techniques, especially formal logic, enhances creativity; and that intolerance of beliefs which are not supported by argument is a virtue.

(August 4 1:30-3:00 CS 68)
Teaching Critical Thinking to Students in Remedial and Special Education Classes: Feuerstein's Theories on the Nature of Learning and Intelligence

Feuerstein's Instrumental Enrichment is the most widely-used cognitive intervention program in the world. The aim of this workshop is to familiarize the participants with the theories of Mediated Learning and Structural Cognitive Modifiability, and also to provide hands-on experience with several levels of this program. There will be ample time for questions. The presenter lived in Israel and worked with Prof. Feuerstein for eight years.

(August 4 10:30-12:00  NICH 173)

Hirsch, Judi
Resource Specialist,
Oakland Public Schools / Assistant Professor, California State University, Hayward
114 Echo Avenue
Oakland, CA 94611

Combatting the Tyranny of Standardized “Intelligence” Tests

A recent federal court decision has severely restricted the use of IQ tests in California. Educators are now seeking alternative means of assessing “intelligence.” This presentation will focus on a method of evaluating cognitive processing rather than academic achievement. Feuerstein's Learning Potential Assessment Device is especially useful for populations whose “thinking skills” have traditionally been ignored.

(August 4 1:30-3:00  NICH 173)

Hoaglund, John
Professor / Author
Department of Philosophy
Christopher Newport College
50 Shoe Lane
Newport News, VA 23606

Critical Thinking and Teaching Informal Fallacies: The Old Approach and the New

Considerable progress has been made in the conception and analysis of informal fallacies, especially since C.L. Hamblin’s FALLACES in 1970. As a result fallacies can be taught better today, and the aim of this workshop is to give an idea how. First several fallacies will be analyzed as they were taught a generation ago. Then participants will employ the same techniques on fallacies selected to illustrate the shortcomings of the techniques. This helps expose some questionable presuppositions of older treatments and prepares the way for a view of how today’s are an improvement.

(August 4 1:30-3:00  STEV 3049)

Hoaglund, John
Mini-Critical Thinking Course: Stimulating Thinking About Thinking with Logical Puzzles

This is a practical workshop on using logical puzzles in ordinary language (no symbolism) for teaching critical thinking skills. Participants will work one relatively straightforward puzzle, then solutions will be shared. This brings an awareness of the challenge and some of the skills brought into play. Next, a second puzzle will be worked together by the grid method. Then this solution will be studied from the vantage points of the logical relations of consistency, inconsistency, implication, and contradiction. Finally a method of teaching these relations along with examples and sample problems will be treated.

(August 5 8:45-10:15  STEV 2049)

Irvin, Glenn
The Loaded Case Against General Education

Associate Vice President,
Academic Affairs
California Polytechnic State University
San Luis Obispo, CA 93407

It’s a truth universally acknowledged in academia that a program seeking legitimacy must be in want of its own administration. In order to have a successful general education program, an institution must provide it an effective administrative structure. Such a structure, however, must recognize the relative autonomy of the faculty in curricular matters and acknowledge the diverse and largely parochial and political interests that shape most general education programs. It must also make clear that general education is to be coherent in a manner similar to major degree programs, and that some individual on campus will advocate for general education just as a department chair advocates for a department’s programs. Unless a university is prepared to organize a separate college or school dedicated to general education, and bear the costs of such an enterprise, it will have to find some other arrangement that guarantees the integrity of general education while acknowledging the authority of academic departments and disciplines.

In most middle-to-large universities, almost everyone affirms the importance of general education. But the actions of special interests (or disinterests) send quite another message, and when combined with a number of administrative and external factors, the result is an environment inimical to general education. In this session, I will provide a review of the attitudes and forces which make this point clear and conclude with a number of proposed solutions.

(August 4 8:45-10:15  DAR 108)
Why do we Reason Poorly?

Psychodynamics vs. Psychologic?

Johnson, Ralph
Professor / Author / Editor, Informal Logic
Department of Philosophy
University of Windsor
Windsor, Ontario
Canada, N9B 3P4

What is the best explanation of the mistakes we make in reasoning? The explanation given from the viewpoint of psychodynamics is that we reason poorly because we are under the influence of our prejudices and biases. The explanation given from the viewpoint of psychologic is that we reason poorly because we do not know the appropriate cognitive strategy or because we lack essential information.

Among the competing explanations which I shall review and analyze are, first, the argument given by Nisbett and Ross (Human Inference) that psychodynamic explanations are unsatisfactory, and, second, the exchange between Richard Paul and David Perkins from the 1986 Sonoma Conference ("Critical Thinking's Original Sin: Round Two"). Also in this paper, I intend to examine several different kinds of mistakes in reasoning from various viewpoints, and try to decide which is correct, or whether some other viewpoint offers greater promise.

Philosophy for Children: A Hands-on Demonstration
Primary Level

This presentation will involve: 1) A brief introduction to the Philosophy for Children curriculum with special reference to the program in Hawaii, and 2) A hands-on demonstration of the “Philosophy for Children” developed by Matthew Lipman and Ann Sharp for use at the elementary level. Participants will read through a section of one of the novels (Pixie). Questions will be elicited and then a discussion will be developed out of these questions, modelling actual classroom experience. Through this it is hoped that participants will experience some of the enjoyment of the novel and be able to see the way the program nurtures intellectual and moral virtues in both teacher and students as the classroom becomes a community of inquiry.

(August 3 8:45-10:15 DAR 112)

Philosophy for Children: A Hands-on Demonstration
Secondary Level

This presentation will involve: 1) A brief introduction to the Philosophy for Children materials developed for use at the secondary level (Lisa, Suki, and Mark), and 2) A hands-on demonstration of the Mark text which focuses on Social Studies. Participants will read a section of Mark. Questions will be elicited and a discussion developed out of these questions, modelling actual classroom experience. Through this it is hoped that participants will experience some of the excitement of the program and will have a better sense both of the content and the methodology of the "Philosophy for Children" materials and the way these together nurture both intellectual and moral excellence.

(August 3 1:30-3:00 STEV 3046)

The Whole Enchilada:
An Outline of a Theory of Reasoning

The premise of this paper is that a great many of the disputes about critical thinking stem from the absence of a comprehensive and unified theory of reasoning. Some disputes which it seems reasonable to think might be solved by a unified theory are:

- the field dependent vs. field independent issue: Are the skills and strategies of critical thinking field dependent, as McPeck and others hold, or are there some field invariant generalist skills, as Paul and others hold?
- the conflicting views about the role of affect and cognition in the development of critical thinking—and indeed in reasoning generally
- the debate as to whether formal or informal logic is best suited to the needs of the critical thinker
- the appropriate methods for teaching critical thinking
- the nature of critical thinking

The purpose of this paper is to provide an outline (and only that) of what would be involved in an adequate theory of reasoning, and to indicate how it would be distinguished from a theory of knowledge and indeed a theory of rationality.

(August 3 8:45-10:15 ART 108)
Johnson, Ralph

Mini Critical Thinking
Course: Critical Thinking and Advertising

Why should a mini-course on critical thinking bother with advertising? First, advertising is an important part of the cultural and information environment and hence cannot be ignored. Second, advertising is one of the most powerful communicators, persuaders, and shapers of values and attitudes that has ever existed and hence it cannot be ignored. Third, advertising often presents itself as argumentation and reasoning but in fact rarely works at that level. The logic of advertising is not the logic of argumentation. Students need to learn how to analyze advertisements, what to watch for, and this does not mean combing ads for fallacies, as some have suggested. Finally, there is a fair amount of mythology and self-deception in consumer attitudes about and responses to advertising. The premise of the mini-course, then, is that advertising is a territory rich in material for the student of critical thinking. The instructor hopes to demonstrate why and to bring with him thoughts and examples for participants to think over.

(August 3 10:30-12:00 STEV 2049)

Keeley, Stuart

Beyond the Term-Paper:
Designing Assignments that Encourage Critical Thinking

Well-designed assignments provide the student with an important opportunity to practice and to internalize critical thinking skills. This session stresses the design of such assignments. First, characteristics of effective assignments will be discussed. Then, types of assignments that facilitate critical thinking in general will be shared. Finally, assignments that encourage the learning of each of a logically ordered series of specific critical thinking questions will be described. Participants will be provided an opportunity to actively participate in several brief assignments and to design and share additional assignments.

(August 3 10:30-12:00 STEV 3046)

Jones, Jere

Strong Sense Critical Thinking: How to Probe Our Own Conceptual Framework

As a professor of philosophy, he has written and spoken extensively on critical thinking and its applications. His research focuses on the psychology of reasoning and the philosophy of logic. He has authored several books and journals on these topics, and his work has been widely cited in the field. His recent projects have explored the role of critical thinking in moral decision-making and the cognitive biases that influence our judgments.

Korn, Fred

Consultant/Lecturer, University of Washington
Washington Higher Education Coordinating Board
908 East Fifth Avenue, EW-11
Olympia, WA 98504

Strong sense critical thinking is vital to a student's intellectual and educational development. However, the examination of one's point of view itself admits of stronger and weaker. More fundamental than the truth or evidential warrant of premises is the assessment of one's conceptual framework. It is well known that a conceptual framework may have blind spots, unrecognized biases, or structure reality misleadingly. But many problems in one's point of view stem from mistaken ideas and assumptions about one's conceptual framework. As with problems of the framework itself, these are difficult to correct because the person is almost always oblivious to them.

We will present a pedagogical approach that teaches students to detect, understand and remedy this problem, and which fosters their intellectual and educational development by demonstrating there is something to learn even about what seems obvious and unproblematic.

(August 3 10:30-12:00 NICH 166)
Kerwin, Ann  
Making the Most Out of Nothing: Looking Critically and Creatively at Absences, Silences, Things Ignored and Things-to-be

According to cognitive psychologists, we human beings are biased toward positive information; consequently, we neglect or underestimate the import of certain negatives—among them: absent events, empty intervals, disconfirming instances, negative evidence—which are essential for thinking and learning effectively. At the same time, many of us grapple daily with concerns others dismiss as “nothing.” Astronomers, for example, study black holes and currently divide the universe into “stuff” and “non-stuff.” Architects and planners include space as well as objects in their designs. Counselors are sensitive to lacks of communication, intimacy, support or self-esteem. While educators ask “Why can’t Johnny read?,” Sherlock Holmes fans recall the clue of the “dog who did not bark in the night.” Social critics look at the absence of minorities, workers, women and others in history, literature and social studies. Some silences speak louder than others. In this participatory workshop designed for educators at all levels, Dr. Kerwin will explore some “pregnant nothings” central to learning, discovery, critical and creative thinking. Participants will then design innovative exercises which they can implement in their teaching next year.

(August 4  8:45-10:15  NICH 166)

Kerwin, Ann  
Co-Presenter  
Witte, Marlys  
Physician  
Department of Surgery  
College of Medicine  
University of Arizona  
Tucson, AZ 85724

Learning and Teaching the Unknown: Pathway to Finding “Intellectual Virtues”

While traditional education focuses on reciting the facts of the day and to a lesser extent cultivating analytical problem-solving skills, the challenge of learning and teaching the unknown, the uncertain, and the ambiguous—the bulk of the challenge of our daily lives—and making decisions in this context has received little attention. Drs. Kerwin and Witte will review their own findings to date in designing and developing the Curriculum on Medical Ignorance at the University of Arizona and also the results of the field “ignorance” experiments conducted by last year’s Sonoma Conference participants in their institutions and disciplines. Special attention will be focused on evaluation of this innovative curriculum in terms of changes in attitudes, knowledge base, skills, and behavior of both students and faculty and specifically how well this curricular approach inculcates “intellectual virtues” needed for “critical thinking in the strong sense” and responsible citizenship in our complex and rapidly changing society.

(August 4  1:30-3:00  DAR 108)

Kobak, Dorothy  
Raising the C.Q. (Caring Quotient)—Educating: Teaching Children to Think Caring

Caring is a learnable, teachable subject. It responds to pedagogical skills in terms of teaching such skills and commitments. The critical spirit, along moralistic lines (care, concern, cooperation)—not “sin,” can be taught and learned at any and all ages and grades. As a “practitioner” I shall deal with philosophical as well as specific skills to accomplish this necessary component of education.

(August 3  3:15-4:45  STEV 3049)

Kubasek, Nancy  
Selection and Design of Textbooks and Supplements that Foster the Development of Values Analysis and Critical Thinking Skills in the Business Classroom

This workshop is premised on three assumptions: that every course should be designed to improve students’ abilities to engage in critical thinking and values analysis; that, in fact, real understanding of subject matter cannot occur unless students engage in these processes; and that business students find it especially difficult to analyze problems from any perspective other than that of a business manager, both because that is the perspective from which most of their textbooks are written and because of the internalized values that led these students to seek careers in business. Most business textbooks do not make the task of teaching critical thinking and values analysis easier, however, armed with a set of criteria, teachers of business courses can learn to select those texts which will help their students develop these skills. This workshop will introduce participants to a three step process by which educators in the Business College can select and develop textbooks and curricular materials to facilitate the integration of critical thinking and values analysis into their classes.

(August 4  1:30-3:00  STEV 3046)
Students frequently believe that their job as learners is to acquire "knowledge" from "authorities" and report it back on multiple choice tests. Freeing students from such beliefs is the major challenge of critical thinking instruction. William Perry's model of college students' development charts their gradual acceptance of the pluralistic world view and personal responsibility for managing epistemological complexity that are assumed when we ask students to think critically. In this session we will consider how instruction for critical thinking can help students along the path toward the contextual relativism, dialectical reasoning and capacity for commitment that characterize intellectual maturity in our culture.

LaBar, Carol
Co-Presenter
Wright, Ian
Mini-Critical Thinking Course: Practical Reasoning and Principle Testing
Critical thinking includes reasoning about what ought to be done, as well as what to believe. This former sort of reasoning, called practical reasoning, involves two logically different types of reasons 1) motivating reasons in the form of value standards which the agent accepts, and 2) beliefs about the degree to which the actions under consideration will fulfill the value standard. These two different kinds of reasons lead to a conclusion about what ought to be done—that is a practical judgment. This session will focus on the use of principle 'tests' as a way of assessing the value standard.

Kurfiss, Joanne
Professor
Center for Teaching Effectiveness
University of Delaware
Newark, DE 19716
Successful Models for Developing Critical Thinking in the College Classroom
Although many educators and researchers have recently become interested in the problem of teaching to develop students' higher-order reasoning abilities, only a few empirical studies document results of educational programs designed to achieve these purposes. In this workshop, I will introduce instructional models that have successfully fostered students' intellectual capabilities within the traditional discipline-based classroom. We will identify common features of the models and consider strategies for integrating critical thinking processes into participants' coursework and academic programs.

Kurfiss, Joanne
Understanding Knowing: Developing Foundations for Critical Thinking at the College Level
Students frequently believe that their job as learners is to acquire "knowledge" from "authorities" and report it back on multiple choice tests. Freeing students from such beliefs is the major challenge of critical thinking instruction. William Perry's model of college students' development charts their gradual acceptance of the pluralistic world view and personal responsibility for managing epistemological complexity that are assumed when we ask students to think critically. In this session we will consider how instruction for critical thinking can help students along the path toward the contextual relativism, dialectical reasoning and capacity for commitment that characterize intellectual maturity in our culture.

LaBar, Carol
Critical Thinking Distinctions
Professor
Faculty of Education
University of British Columbia
Vancouver, B.C.
Canada V6T 1Z5
Making decisions about significant personal and social issues requires the ability to use certain distinctions. In this workshop, we will examine some of these distinctions (for example, empirical and value claims, principles and rules, moral and prudential reasons). Methods and exercises suitable for secondary school students will be utilized.

Langsdorf, Lenore
Professor
Department of Philosophy
University of Texas at Arlington
P.O. Box 19527
Arlington, TX 76019
Reflection, Interpretation, and the Critical Spirit
Critical thinking in the "strong sense" implies the ability to reconstruct the clearest, fairest, and strongest versions of our own and others' points of view. In her paper, Dr. Langsdorf discusses how, in addition to formal and informal logic, phenomenology and hermeneutics provide the basis for methods that aid in the understanding of positions and claims. She will introduce some of these methods in an approach that does not assume any prior familiarity with the philosophic traditions that gave rise to them. Her ultimate goal is the encouragement of a positive critical spirit concerned with clarity and truth rather than the destruction or imposition of viewpoints and values.

(Translated from Latvian)
Lazere, Donald

Composition for Civic Literacy

Professor
Department of English
California Polytechnic State University
San Luis Obispo, CA 93407

This workshop is based on Don Lazere's college course in argumentative writing and the research paper, which also focuses on the development of civic literacy. One aim of the course is to counteract the fragmentation into disparate units of reading and writing assignments typical of courses in composition and most other subjects. Coherence is achieved by centering reading and writing assignments throughout the term on a single issue in current civic life—in this case, President Reagan's State of the Union Address and the implications of Reagan's economic policies stated there and elsewhere for the rich, the poor, and the funding of public services including national defense and education. Discussion of and research on this issue provide a concrete body of knowledge to which principles of critical thinking can be applied.

(August 4 10:30-12:00 STEV 3046)

Lazere, Donald

Bias in Academia

The singling out of bias in leftist teachers by conservative groups like Accuracy in Academia exemplifies the fallacy of stacking the deck or selective vision. The majority of activities in American education are openly and directly in the service of the conservative business, professional, government and military establishment. If liberal and leftist teachers have a bias, it is that of a minority attempting to compensate for the greater bias of the majority. But conservatives fall victim to an axiom of sociocentrism: criticism of the status quo is more likely to be perceived as biased than uncritical support of it, which tends to be regarded simply as the norm of neutrality. Moreover, partiality toward knowledge over ignorance, calm reason over unreasoning zealotry is often misunderstood by uneducated conservatives simply as "liberal bias." What conservatives sometimes seem to be calling for in education is equal time for ignorance and prejudice.

(August 4 1:30-3:00 ART 108)

Leddy, Thomas

On Teaching Creativity,
Parts 1 and 2

Professor
Department of Philosophy
San Jose State University
One Washington Square
San Jose, CA 95192-0096

Co-Presenter
Manning, Rita

This is a two part workshop. The first is led by Professor Manning and explores creativity in practical contexts and in science, and the second, led by Professor Leddy, explores creativity in the arts.

Part One Professor Manning begins by looking at a Sherlock Holmes story, "Silver Blaze". She briefly recounts the story and then contrasts the reasoning used by Holmes and by the police detective Inspector Gregory. She then uses this example to focus on several elements of critical thinking: recognizing anomalies, asking appropriate questions, considering alternative explanations, and collecting new data. She closes by suggesting other examples which can be used in the classroom.

Part Two Professor Leddy considers two contemporary psychologists' views of creativity in the arts focusing on their use of think-aloud techniques to study the creative process. The psychologists are Perkins (The Mind's Best Work) and Weisberg (Creativity). Professor Leddy uses two of their laboratory examples to illustrate problems with their approach and then raises further questions in connection with a series of slides that follows the development of Picasso's Guernica. He then considers various suggestions for encouraging creativity in arts and humanities classrooms.

(August 5 8:45-10:15 CS 68 Part 1)
(August 5 10:30-12:00 CS 68 Part 2)

Luckhardt, C. Grant

Assessing the Credibility of Authorities

Professor
Department of Philosophy
Georgia State University
Atlanta, GA 30303

In this paper I develop and argue for a set of some two dozen criteria to be used in assessing the credibility of authorities. Based partly on philosophical considerations and partly on research results in cognitive psychology, these criteria will then be used to assess the credibility of several examples of arguments that rely on authority.

(August 5 8:45-10:15 NICH 166)
Teaching by Bad Example: Optimal Cases for Helping Intermediate Students to Think Critically, Parts 1 and 2

Much instruction in higher education is done by means of cases, primarily from "classic" texts on philosophy, law, and literature and is approached with an attitude of respect bordering on reverence. For the cultivation of critical thinking, however, this pedagogical orientation is less than satisfactory and is especially unsuitable when students are intermediate in either cognitive abilities or educational years. Texts most suitable for developing critical faculties in intermediate students meet the following tests: brevity, substantive bite, cumulative diversity of character, etc. Dr. May will clarify, rationalize, and test the foregoing prescription.

Session I: Crude Adventures in Critical Thinking. Session II: Sustained Adventures in Critical Thinking.

(August 2 3:15-4:45 STEV 3049 Part 1)
(August 5 1:30-3:00 STEV 3049 Part 2)

Mayfield, Marlys
Author / Consultant
P.O. Box 5406
Richmond, CA 94805

Teaching Recognition of Viewpoint: Working with Student Naïveté About Where Ideas Come From

Left wing, right wing, liberal, radical, conservative, gay, feminist, libertarian. Have you ever asked your students to define these terms? Can they identify a liberal viewpoint when they read or hear it? Can they recognize communist or right wing rhetoric? You may be surprised to find that most of them don’t know how, and are quite bewildered by your expectation that they demonstrate a skill you take for granted. No wonder so many of our students equate reality with the six o’clock news. How do you teach students to recognize viewpoint and consider its influence on content? Marlys Mayfield, author of Thinking for Yourself, will demonstrate through written and oral exercises how this basic critical thinking skill may be developed. Work will also include recognizing unconscious viewpoints, such as those based on ego and ethnocentricity, racism, sexism, and religiocentricity.

(August 2 3:15-4:45 STEV 3040)
Mayfield, Marlys  
Grounding Critical Thinking in Observation Skills

Why stress teaching students how to reason better when they still base their reasoning on inaccurate information gleaned from a careless untrained use of their senses? The teaching of critical thinking can begin with training in observation skills. This presentation will offer exercises for classroom use, both oral and written, for the development of observation skills. Marlys Mayfield will also demonstrate from her research how students trained in observation skills are better prepared on a learning gradient to work with the basics of inductive reasoning and move from there into the more complex cognitive problems of analyzing and advocating ideas.

(August 3  8:45-10:15  STEV 3049)

Mendelsohn, Richard L.  
Logic and Critical Thinking

Professor / Author
Hebert Lehman College, C.U.N.Y.
Bedford Park Boulevard West
Bronx, NY 10468

Traditional formal logic serves as an excellent base on which to fashion a critical thinking course. Most of the virtues of critical thinking courses pertain to the teaching of the content. Combine these critical thinking activities with a content aimed at making precise the underlying concepts engaged in, and one creates an extremely potent educational experience. Students come to understand and recognize elementary logical relations—like inconsistency and validity—by using them to explore their own judgments about what is logical and what is not. In probing their language and thought with the abstract model of the truth functional connectives, students develop a vocabulary needed for reasoning as well as points of focus for identifying positions and evaluating them. Indeed, logic is precisely the type of subject matter amenable to classic Socratic techniques, since it emerges out of self-reflection on rational processes, processes that students have engaged in for years but never clearly articulated. This is the heart of the approach we have adopted at Lehman College for a typical population of inner city students who are deficient in reading and writing: reasoning is not the content of the course, but rather the framework within which it is taught. In class, students are required to identify the logical relation that holds between a number of statements, and then to defend that position—using the vocabulary and concepts of the course—against criticisms and alternatives other students develop. Serving as part of an integrated program makes it possible to apply readily this mode of logical analysis to material learned in other courses.

(August 4  3:15-4:45  NICH 166)
Missimer, Kathleen Dean  
Professor  
Department of Philosophy  
Oregon State University  
Corvallis, OR 97331  

Students tend to be gullible; they are particularly vulnerable to claims purportedly based on experimental or scientific evidence. Thus, helping students develop critical judgment about scientific reasoning is both important and difficult.

In this workshop, I demonstrate two classroom exercises through which students encounter their own gullibility and, by examining their errors, come to appreciate the strengths and weaknesses of scientific reasoning. The lessons are based on the technique of "dehoaxing," which tricks students into accepting a hoax and then invites them to analyze the reasoning which led them into error. The first lesson uses carnival tricks to lure students into thinking they have seen convincing experimental evidence of extra-sensory perception. In the second lesson, the students pose as handwriting analysts in order to observe similar faulty reasoning in others. In both lessons, students are invited to analyze critically the reasoning that led to error, and to develop a set of standards for the evaluation of experimental evidence. Students are then encouraged to apply those standards to more traditional scientific arguments.

The lessons are appropriate for high-school and college age students, in science or critical thinking classes.

(August 3 1:30-3:00  DAR 108)
Nosich, Gerald

Teaching Critical Thinking
Across the Curriculum

This seminar is designed for people who do not teach a course specifically on critical thinking, but who want to incorporate teaching critical thinking skills and the critical spirit into courses in different areas. The seminar will cover some specific and practical methods for fostering the intellectual virtues and teaching these skills in Social Science courses (History, Psychology), in Humanities (English Lit, Fine Arts, Music), and in the Natural Sciences.

(August 2 10:30-12:00 CS 68)

Nosich, Gerald

On Teaching Critical Thinking

The workshop will focus on a method for teaching students how to construct arguments of their own and how to criticize arguments of others. The method will be the one used in my Reasons and Arguments; the essential steps are how to paraphrase well, how to fill in missing premises, and how to evaluate the truth of claims. Also covered will be some specific classroom techniques and some ways to combat ethnocentric thinking.

(August 3 1:30-3:00 DAR 112)

Olds, Susan

Using a “Thinking Jigsaw” to Explore Supreme Court Decisions

This interactive session models a process for analyzing key Court decisions by attempting to solve a hypothetical case. The cases in the model deal with government regulation of business and commerce, but the process can be duplicated for other situations. Case descriptions are drawn from Lessons on the Constitution, published by Project 87.

In order to decide the hypothetical case, participants must work in small groups using the jigsaw technique, a cooperative learning strategy. This session is designed for teachers of U.S. government or economics, at high school or freshman level, who have some previous understanding of the role of the Supreme Court in our system.

(August 3 3:15-4:45 STEV 2049)
With reconstructing the events in order that their audience may share judgments for present can be introduced in the context of grappling with major social or cultural blindness. In this case, our critical judgment about the actions of individuals and groups in the past results in misjudgments of others. Another, but opposite danger is thinking. Will a good program in Critical Thinking be useful for any judgments about any culture but our own? The History on Trial program is based on the belief that we can overcome our group-bound and culture-bound thinking.

Paul, Richard W.   Co-Presenter
Tavris, Carol   Co-Presenter

What's in a Name? “Thinking” vs. “Critical Thinking”
Perkins, David

Some theoreticians talk about teaching for “thinking”, others about teaching for “critical” thinking or “creative” thinking. Are these differences insignificant? Should Critical Thinking be used in a wide sense to cover all good thinking or only in a narrow sense to cover the evaluative dimensions of good thinking? Will a good program in Critical Thinking teach the dimensions of generativeness and novelty? Richard Paul and David Perkins agree on some of the answers to these questions and disagree on others.

Payne, William
Teacher, History
Moreno Valley High School
23300 Cottonwood Avenue
Moreno Valley, CA 92388

The American History on Trial program is based on the belief that historians and lawyers are engaged in similar activities. They are both charged with reconstructing the events in order that their audience may make judgments about the actions of individuals and groups in the past. There is a shared commitment to the principle that the conflict between opposing viewpoints of the past will lead to a better understanding and perhaps the truth. In order to reconstruct the past, both the historian and the lawyer must critically evaluate evidence, logic, and values. This workshop will present a unit on Colonial history as an example of how reasoning skills can be introduced in the context of grappling with major issues of historical interpretation in a modified trial setting. Participants will receive a complete set of materials for the sample unit.

Olds, Susan
Co-Presenter
Rudinow, Joel

Issues of Constitutional interpretation are not only timely for the application of Critical Thinking skills; they are also extremely useful as vehicles of Critical Thinking instruction, particularly for cultivating skills as defined in the California Assessment Program and also for cultivating an appreciation of subtle but important epistemological distinctions. This session is designed for teachers in grades 5-12 and Community College who have little experience in teaching about the Constitution and who would like to use it as a vehicle for Critical Thinking instruction.

Paul, Richard W.
Director
Center for Critical Thinking and Moral Critique
Sonoma State University
Rohnert Park, CA 94928

The problem of long term staff development is a central problem in any attempt to bring critical thinking into the curriculum. Whatever else, we want critical thinking to be infused into all subject matter instruction. But we cannot do this unless, and to the extent that, faculty become comfortable articulating and utilizing critical thinking skills and dispositions. The standard mindset to instruction is an impediment.

Furthermore any short-term strategy is, by itself, bound to fail. In this session Richard Paul will present a general model for staff and discuss ways of adapting it to different educational levels: elementary, secondary, and college.

Paul, Richard W.

How to Help Teachers to Infuse Critical Thinking by Helping Them to Develop Skill in Remodelling Their Present Lessons

The basic idea behind lesson plan remodelling as a strategy for staff development in critical thinking is simple. To remodel lesson plans is to develop a critique of one or more lessons and formulate one or more new lessons based on that critical process. A staff development leader with a reasonable number of exemplary remodels with accompanying explanatory principles can develop a series of staff development sessions that enable teachers to begin to develop new teaching skills as a result of their experience in lesson remodelling. Before a limited studio audience, Richard Paul will illustrate this mode of staff development using the Center's Critical Thinking Handbook, K-3, a Guide For Remodelling Lesson Plans in Language Arts, Social Studies, and Science.
This paper describes the design and development of an inference test in reading comprehension for intermediate grade students. Current standardized tests of reading were found to be problematic because it was not easy to make any decision as to what the tests measure. Implicit assumptions in reading testing are challenged—for instance, the assumption that when a reader selects the keyed answer that the reader has done so for the right reasons. Results from student verbal reports will be presented to illustrate potential item ambiguities, vocabulary problems, hidden cues, as well as to provide a window into the processes readers are using to arrive at their answers. Preliminary findings will be presented.

Perkins, David

What the Mind is Made Of

The mind can be conceived and modeled in innumerable ways. Two contemporary views of the nature of mind strike a particularly provocative contrast. Alan Newell, in his SOAR model, proposes that the mind is a "production system," a computer-like mechanism that operates by checking for what the situation of the moment is and then "firing" an action that responds more or less appropriately to the situation. In seemingly stark contrast, Marvin Minsky, in his "society of mind" model, proposes that the mind is composed of a loose society of semi-autonomous subminds—"agencies" that have very specialized jobs. One agency and then another seizes control in order to get things done. In this informal lecture, we explore the contrasts and similarities between these models. We also ponder whether the question, "What is the mind made of?" even makes sense, and what kind of sense it might make.

Phillips, Linda M.

The Design and Development of a Test of Inference Ability in Reading Comprehension

This paper describes the design and development of an inference test in reading comprehension for intermediate grade students. Current standardized tests of reading were found to be problematic because it was not easy to make any decision as to what the tests measure. Implicit assumptions in reading testing are challenged—for instance, the assumption that when a reader selects the keyed answer that the reader has done so for the right reasons. Results from student verbal reports will be presented to illustrate potential item ambiguities, vocabulary problems, hidden cues, as well as to provide a window into the processes readers are using to arrive at their answers. Preliminary findings will be presented.

Porter, J.S.

How to Expose and Correct Assumptions

Assumptions, often unexposed and unexamined by educators, about students, teaching and education generally underpin, and sometimes undermine, our approach to learning. This workshop provides practical experience in learning to expose and correct our assumptions so that some impediments to critical thought can be removed. The more we are aware of our assumptions, the more we are free to explore new options of thinking and teaching. After all, the unexamined life isn't worth living. Is it?
Romain, Dianne  
Co-Presenter  
Taylor, Sarah  
Director  
California Academic Partnership  
Vacaville Unified School District  
751 School Street  
Vacaville, CA 95688  

In this workshop we will present lesson plans and assignments in Biology and Chemistry developed by high school teachers with Critical Thinking Consultant Dianne Romain. The skills encouraged include: a) general critical thinking skills such as analysis of language, recognition of bias and slanting, developing an appreciation for opposing viewpoints, and socratic questioning, and b) scientific process skills such as observing, communicating, comparing, organizing, relating, and inferring. Participants in the workshop will work in small groups to develop other lesson plans and assignments.

(August 2 3:15-4:45  STEV 1002)

Rich, Michael  
Lecturer, California State University, Chico  
2892 Buena Tierra  
Benicia, CA 94510  

Critical thinking in the strong sense involves a commitment to moral integrity. It involves a commitment to overcoming one's own self-deception and reconciling one's avowed moral beliefs with one's actual moral beliefs (those reflected in one's behavior). The problem is that self-deception is, by definition, extremely difficult for an individual to detect in his/her own case. Quite simply, if one is self-deceived, one does not know one is deceiving oneself. In this paper I will examine the relationship between moral appraisals, the emotions, and strong sense critical thinking. I will argue that although our emotions represent, on the one hand, obstacles to the achievement of moral integrity, they provide, on the other hand, an invaluable tool for overcoming our self-deception about our moral commitments.

(August 4 10:30-12:00  ART 108)

Romain, Dianne  
Professor  
Department of Philosophy  
Sonoma State University  
Rohnert Park, CA 94928  

In this workshop I will provide puzzles, games, songs, poems, pictures and dances designed to teach critical thinking concepts. Participants will have the opportunity to exercise their imaginations to develop other ideas for their classes.

(August 4 10:30-12:00  STEV 3008)

Romain, Dianne  
Professor  
Department of Philosophy  
Sonoma State University  
Rohnert Park, CA 94928  

In this workshop I will provide puzzles, games, songs, poems, pictures and dances designed to teach critical thinking concepts. Participants will have the opportunity to exercise their imaginations to develop other ideas for their classes.

(August 2 3:15-4:45  STEV 1002)

Romain, Dianne  
Co-Presenter  
Taylor, Sarah  
Director  
California Academic Partnership  
Vacaville Unified School District  
751 School Street  
Vacaville, CA 95688  

In this workshop we will discuss a two-year, two step partnership process enhancing the teaching of critical thinking and writing in Social Studies. In the 1985-86 period, CAPP teachers worked with post-secondary consultants. In the dissemination phase, 1986-87, CAPP teachers developed and presented to other teachers the knowledge and skills gained in the previous year.

We will recommend ways to develop effective partnerships, and where to look for funding, and we will provide examples of critical thinking lesson plans and instructional strategies.

(August 4 3:15-4:45  CS 68)
Rosenberg, Vivian M.   Introducing Affective Awareness as a Critical Thinking Skill

Critical Thinking in the “strong” sense requires understanding how our minds work. Because human beings are not machines, we must recognize the inevitable interlacing of ideas and feelings at every level of experience. Thus affective awareness should be included as a major component of Critical Thinking.

In the past, too many logic textbooks advocated the avoidance of feelings in the interest of rational deliberation. I recommend, instead, that we learn to examine more rigorously the interactions of feelings and ideas. To illustrate how affective awareness can be taught in the classroom, I describe a program in which students are directed, consciously and systematically, to focus on feelings—to identify how they feel as they deal with ideas and problems, and to consider how others feel.

Affective awareness is a teachable skill; it can—and should—be taught and practiced not only in Critical Thinking courses but in any course where personal psychological insight and empathy with others might improve comprehension and performance. Those involved in the study of literature, history, psychology, social work, education, nursing, and many other subjects will benefit in their professional lives from such a program; that affective awareness benefits all of us in our personal lives is obvious.

(August 4 3:15-4:45 STEV 3049)

Rosenberg, Vivian M.   Modifying Traditional Writing Instruction: Strategies to Facilitate Critical Thinking

Although impressive changes have been made in composition pedagogy in the last few years, too many English instructors still follow—or are expected to follow—traditional strategies which undermine “strong sense” critical thinking. This presentation will review four problem areas: 1) Paper Topics; 2) The Research Paper; 3) The Tone of Student Papers; 4) The Use of Literary Language.

This workshop should be of interest to composition instructors and other teachers who routinely assign papers as part of their course requirements. We will consider possible ways of modifying traditional instruction strategies to foster “strong sense” critical thinking. Material for classroom use will be distributed.

(August 5 8:45-10:15 DAR 108)

Rudinow, Joel   Philosophy Comes Down to Earth: Critical Thinking in the Community College

A critical review of current educational policy debate concerning the status of Critical Thinking instruction in the community colleges. Objections are raised against increasingly influential arguments offered in support of the thesis that Critical Thinking be classified as essentially ‘remedial’.

(August 4 8:45-10:15 CS 68)

Rudinow, Joel   How to Use the Media Critically, Parts 1 and 2

A unique experiment in the Socratic use of television technology as a tool of media criticism and as a tool of education in media criticism. A panel involving advanced students of Critical Thinking will critically analyze a segment of nationally televised public affairs programming using the “stop action” and “instant replay” capabilities of television technology, before a live television studio audience.*

*(Seating is limited, and latecomers cannot be admitted to the studio)

(August 3 8:45-10:15 STEV 1063 Part 1)

(August 3 10:30-12:00 STEV 1063 Part 2)

Ruggiero, Vincent Ryan    Profile of a “Thinking Person”

Professor / Author
Department of Humanities
SUNY at Delhi College
Delhi, NY 13753

Despite all the books and articles that have been written on the subject of thinking instruction, particularly during the last decade, teachers continue to ask several basic questions: What is critical thinking? What is creative thinking? How exactly should a course in thinking change a student? What are the characteristics of a “thinking person”? This presentation will address these questions.

(August 2 10:30-12:00 DAR 108)

Ruggiero, Vincent Ryan   Teaching Thinking Across the Curriculum: A Holistic Approach

This presentation will detail a holistic approach to teaching that combines creative and critical thinking, covers both problem-solving and issue-analysis, and fits a wide variety of courses across the curriculum. In addition to explaining this approach, the presentation will address the following related matters: setting instructional objectives, developing general and subject-specific thinking exercises, and assessing student progress.

(August 2 3:15-4:45 ART 108)
Ruggiero, Vincent Ryan  The Administrator's Role in Thinking Instruction

This presentation will advance the idea that administrators have an important role to play in the thinking movement, a role upon which the ultimate success of the movement could well depend. The presentation will examine the nature of this role, identify numerous ways in which administrators can promote and facilitate thinking instruction in their schools or colleges, and discuss the benefits such initiatives will bring to administrators themselves and to their institutions.

(August 3 1:30-3:00 STEV 1002)

Ruggiero, Vincent Ryan  Dispositions—The Neglected Aspect of Thinking Instruction

All the understanding of creative and critical thinking and all the skill in applying that understanding to problems and issues will profit students little if they lack the motivation to think well. This fact has led a growing number of authorities on thinking instruction to urge that classroom teachers give special attention to the dispositions that underlie effective thinking. This presentation will identify these dispositions and suggest ways to assist students in developing them. (It will also examine the obstacles to such development and ways in which they can be overcome.)

(August 3 10:30-12:00 STEV 1002)

Sandberg, Kate  Reflective Thinking: Variations on a Theme

Is it possible to create a reflective thinking model which integrates experience, emotion, intuition, and more standard models of thinking to serve a variety of purposes? Could this model clearly show the structure of designing solutions, making informed judgments, and understanding concepts? After a presentation of such a model, participants will apply their knowledge of thinking to discuss possible modifications. Annotated bibliography included.

(August 3 10:30-12:00 ART 108)

Sarris, Greg  The Multi-Cultural Classroom as Model for the Teaching of Critical Thinking

The multi-cultural classroom, with its students from diverse backgrounds, provides teachers and students alike an opportunity for open dialogue about immediate perceptions or long-standing thought or belief which not only opens the knowledge base to others, in that others can challenge and affect that knowledge base, but enables us access to others so that we might in turn become more sensitive and responsible teachers and students of critical thinking. We must begin, then, to see the multi-cultural classroom as an asset, a repository of differences, from which the very stuff of critical thinking in the strong sense is brought to light and examined by all and not just a pre-selected few.

In addition to providing theoretical background regarding critical discourse and the culturally different student, I will present several practical exercises that will help to open critical discourse and promote critical learning in the multi-cultural classroom. Most exercises will come from the teaching of writing at the high school and college levels, but will be relevant to other subject areas and grade levels as well.

(August 4 8:45-10:15 STEV 1002)

Siegel, Harvey  Critical Thinking and Indoctrination

In wanting students to be critical thinkers, we want them to value critical thinking and reason, for we want them to believe and act in accordance with reasons. How do we develop in students these wants and values? It appears that the only option is to indoctrinate students into the beliefs and values constitutive of critical thinking. But this is incompatible with critical thinking, since beliefs which are held critically are held on the basis of reasons, while indoctrinated beliefs are not. Thus, our problem: is it possible to educate for critical thinking without indoctrinating the student into the beliefs and values of the critical thinker? After discussing the nature of indoctrination, and distinguishing between indoctrination and non-indoctrinative belief/value inculcation, I address this question. I argue that non-indoctrinative education for critical thinking is possible, and describe such an education.

(August 2 10:30-12:00 STEV 3046)
Siegel, Harvey

Mini-Critical Thinking Course: Epistemological Underpinnings of Critical Thinking

To be a critical thinker is to base one's beliefs, opinions and actions on relevant reasons. The notions of "reason" and "rationality" are, however, philosophically problematic. Just what is a reason? How do we know that some consideration constitutes a reason for doing or believing something? How do we evaluate the strength or merit of reasons? What is it for a belief or action to be justified? What is the relationship between justification and truth?

These questions are the meat and potatoes of that branch of philosophy known as epistemology or the theory of knowledge. They might be thought of as abstract and unrelated to education for critical thinking. But so long as critical thinking is thought of as essentially involving reasons and rationality, these questions are central to the critical thinking student's understanding of her subject matter. So it is important for a critical thinking course to help students understand the epistemology underlying critical thinking.

In this workshop we will examine these epistemological questions, and explore their relevance for critical thinking. Beginning with ordinary, everyday examples, we will consider the concepts of reasons, evidence, justification, and truth. Our aim will be not only to get clear on these notions, but also to grasp the connection between these concepts and education for critical thinking.

(August 2 3:15-4:45 STEV 2049)

Swartz, Robert

A Framework for Infusing Critical Thinking into Science Instruction

This presentation will involve a demonstration of newly designed lessons constructed to infuse teaching for critical thinking into regular science instruction through restructuring the way standard curriculum materials are used. Examples from elementary science, high school biology, and high school chemistry will be presented to illustrate a lesson structure which is designed to teach for the acquisition, assimilation, and transfer of all of the important critical thinking skills useful in science. Techniques for constructing teacher-designed lessons using standard content material from the sciences will be discussed, and the conception of critical thinking underlying this work will be explicited.

(August 3 8:45-10:15 CS 68)

Talbot, Jan

Effective Integration of Thinking Across the Curriculum: Johnny and Jane CAN Think

"Thinking" teachers have integrated the teaching of thinking across the curriculum in their classrooms (K-12). Specific lessons and motivating activities that have been particularly successful for students and teachers will be shared. Ways we can know when thinking in the strongest sense is becoming an integral part of our lives will be explored.

(August 2 1:30-3:00 IVES 119)

Talbot, Jan

Teaching Thinking Strategies Across the Curriculum: The Higher Order Thinking (H.O.T.) Project

This session will describe development of the Higher Order Thinking (H.O.T.) Projects currently underway, under the direction of H.O.T. Project Director, Edys Quellmalz in Sacramento County, San Mateo County, Center Unified School District and Arkansas. The projects involve teachers at all grade levels in a collaborative effort to develop and monitor students' higher order thinking skills within existing curricula. In the instructional component, teachers examine textbooks, other classroom resources and course guides to design activities that will involve students in sustained reasoning about significant concepts and problems typically encountered in academic and practical situations. In the assessment component, teachers evaluate student essays, projects and presentations to determine how well students use and explain explicit higher order thinking strategies. Following an overview of the project, Jan Talbot, Project Coordinator of H.O.T. will describe lessons which have been developed and discuss samples of student work.

(August 4 1:30-3:00 IVES 119)
Thinking Critically about Emotion—and the Role of Emotion in Critical Thinking

Historically, philosophers and psychologists have divided emotion and cognition into two camps: the "bestial" and the "human," the irrational and the rational, the bad and the good. One implication of this perspective has been that emotion is death to critical thinking; that human beings would be able to think logically and solve their problems if only they didn't have those nasty old mammalian emotions in the way. This talk will discuss how new research is breaking down old dichotomies: for example, the role of cognition in generating emotion; the role of emotional arousal in influencing thought; and ways in which cognition can be "irrational" and emotion "rational."

(August 2 10:30-12:00 IVES: Warren)

Villarini, Angel R.

Teaching Critical Thinking Through Moral Deliberation: An Interdisciplinary Approach to the Humanities

After seven years of practice, research and reflection on the teaching of a general education course in the Humanities (Western Civilization) and very much influenced by my reading of such thinkers as John Dewey, Jean Piaget, Hans-George Gatamer, Paolo Freire and Paul Hirst and my work with Alverno College of Milwaukee, I have developed some ideas about critical thinking and the teaching of the Humanities that I would like to share. Although these ideas were developed initially for a university course, they have also been used to orient a process of curriculum revision and integration of Puerto Rico's public school system. I will focus on the following: 1) Critical thinking in the "strong sense" is an outgrowth of our metacognitive capacity in the direction of the dimensions of executive control, dialogical, logical, epistemological, contextual and teleological thinking. 2) The Humanities are a way of experiencing reality, an hermeneutical and critical event, that must be approached as a continuation and reconstruction of the student's experience. 3) The Humanities are particularly suitable to foster critical thinking in relation to moral deliberation in the context of contemporary controversial ethical-political issues which are basic for personal and citizenship development. 4) The fundamental problem of teaching is to bridge the gap between the "horizon of experience" of the student and that of "disciplined knowledge" represented by the teacher. Through a teaching strategy of exploration, conceptualization and application, the teacher's role is to serve as a mediator of knowledge. 5) The basic task of the teacher is to design activities, foster relations and develop instructional and evaluational instruments and artifacts that will help in the development of critical thinking. Several of these will be presented.

(August 4 10:30-12:00 DAR 108)

Walsh, Debbie

The AFT Critical Thinking Project: The Hammond, IN Pilot

An overview of the Critical Thinking Project developed by the Educational Issues Department of the American Federation of Teachers with specific focus on the piloting of AFT's 35-hour training-of-trainers component of the project. The pilot was a cooperative effort of the AFT, the Hammond Teachers Federation and the Hammond Public Schools to train a cadre of 23 teachers who will provide the training throughout the Hammond school system. The program has now grown nationwide: The AFT videotape on thinking skills will also be previewed.

(August 3 8:45-10:15 STEV 3008)

Walsh, Debbie

Integrating Critical Thinking Skills into the K-12 Curriculum

This introductory workshop will provide an overview of the critical thinking "movement," approaches to the concept and what the research tells us. Sample strategies will be illustrated for infusing classroom instruction and assessment of critical thinking skills and abilities within the disciplines. Small group activities will provide participants with an opportunity to analyze their existing approaches and to share and apply new strategies and techniques.

(August 3 3:15-4:45 DAR 108)

Warren, Thomas

What's Wrong with the "Critical Thinking" Movement?

It is evident that something is fundamentally wrong with the "critical thinking" movement that has gained so much momentum in American education over the last several years. Specifically, I want to argue that 1) the general content of critical thinking pedagogy is not truly centered on human thinking at all, but on some other vital, but radically different, mental faculty which might better be called "reasoning," and 2) the development of the capacity for thinking, and not merely reasoning, is profoundly important and may even be the crucial condition for the development of individual moral consciousness (and, thus, the so-called critical thinking movement, while intending to develop moral insight and knowledge, may actually restrict itself from the subject).

(August 5 1:30-3:00 STEV 3008)
Weddle, Perry  
But That's Just Your Opinion

Department of Philosophy  
California State University, Sacramento  
6000 J Street  
Sacramento, CA 95819

Participants in this workshop will explore relationships between mere conjecture, the educated guess, reality, falsehood, firm grounding, creativity, babble, brainstorming, truth, emotions and fact. Method: Socratic. Pace: Frenetic. Level: Middle school—College. Goal: Straightening things out, and realizing the depth of the problem. Focus: Sciences, Language Arts, Social Studies, Math.

(August 2 3:15-4:45  IVES 119)

Weddle, Perry

What a Lovely Generalization!

This workshop is two themes—"Generalizing Responsibly," and "Shooting Down the Airy." Under the former, participants will explore the topic of sampling, projecting generalizations from samples, public opinion polling, and industrial applications. Under the latter, participants will explore the techniques of counter example and reductio ad absurdum, and explore various ways in which generalizations may be rationally hedged. Levels: Middle school—College. Focus: Language Arts, Social Studies, Math.

(August 3 10:30-12:00  CS 68)

Weinstein, Mark

Critical Thinking and Moral Education

Critical thinking has an essential normative component. Theorists like Richard Paul and Matthew Lipman have insisted that values education is at the heart of critical thinking in its most significant sense. This paper addresses this issue within the context of developmental psychology and the theory of virtues, contrasting the critical thinking perspective with, especially, that of Kohlberg and Peters.

(August 2 10:30-12:00  STEV 3040)

Weinstein, Mark

Integrating Thinking Skills into the Curriculum

For the past two years the Reasoning Skills Project has worked with New York area schools to develop thinking skills programs that meet their instructional needs. An analysis of the Project's strategies and outcomes points to common features that need to be addressed when thinking skills curricula are introduced into school settings. Curriculum samples of materials developed by participating teachers will be available.

(August 2 1:30-3:00  STEV 3046)

Weinstein, Mark

Philosophy for Children: Hands-on Workshop

Philosophy for Children is among the most widely used and well respected thinking skills programs available to the schools. The workshop will include participatory demonstrations of two of the most popular curricula: The PIXIE program for grades three and four and HARRY STOTTLEMEIER'S DISCOVERY for grades 5 and 6. The demonstration will be followed by a discussion of issues of program implementation.

(August 3 10:30-12:00  DAR 108)
Critical thinking includes reasoning about what to do. If we wish to teach students how to make intelligent decisions in their school and out of school lives, then we must teach them how to think critically. Through the medium of a simulation game, participants will focus on some of the critical thinking abilities, standards, and dispositions needed in decision-making.

(August 4 8:45-10:15 DAR 112)


During the last ten years, Polish society has experienced dramatic and unexpected changes which have resulted in the emergence of a so-called alternative or self-organizing society. This part of the Polish nation crystallized itself as an alternative to both the monopolistic party-state system and the Catholic Church and has evolved to a significant extent on the basis of moral critique and critical thinking, initially in the weak and finally in the strong sense.

In the area of education during the last ten years such groups as the Flying University, the Society for Academic Studies, students' and workers' self-education circles have organized seminar courses and lectures both openly and secretly in churches and private homes. Recently, independent networks of scholars and students stimulated by the national renewal during the solidarity era have proliferated and persisted. Similar new social patterns have evolved in many other areas of social life, partially in the underground. Critical thinking and moral critique have been the driving force behind this development on a mass scale of new social phenomena.

(August 3 8:45-10:15 DAR 108)
Critical Thinking and Informal Logic: How Do They Relate?

Ralph Johnson T. Edward Damer

This panel will explore the interrelations of critical thinking and informal logic and the significance of those interrelations for pedagogical purposes.

(August 4 8:45-10:15 SU:MP)

What is the Appropriate Role of Critical Thinking in Pre-Service Education?

Robert Swartz Richard W. Paul

Luiza B. Amodeo
Dean
School of Education
Sonoma State University

If public school teachers are to foster critical thinking in all of their teaching, how should pre-service education be designed to accomplish this end? What are some of the obstacles and dilemmas to be faced in moving in this direction?

(August 2 1:30-3:00 SU:MP)

Critical Thinking and the Media

William Dorman Lenore Langsdorf

Carl Jensen
Director, Project Censored
Department of Communications Studies
Sonoma State University

This panel will consider the many challenges and opportunities which are posed by the powerful influence for good or ill of the mass media today. The role that critical thinking needs to play for the media consumer and the implications of this for education will be canvassed.

(August 2 10:30-12:00 SU:MP)

Critical Thinking and Curricular Reform in Secondary and Higher Education

Chair: Donald Lazere Fred Korn
Glenn Irvin George Hanford
Rexford Brown Jere Jones

This panel will focus on institutional obstacles to a unified curriculum for critical thinking and explore possible means of overcoming them.

(August 3 3:15-4:45 SU:MP)

Statewide Critical Thinking Testing in California: What Has It and What Has It Not Accomplished?

Perry Weddle Jan Talbot Robert Ennis

This panel will consider the nature and impact of mandated statewide critical thinking testing in California.

(August 5 10:30-12:00 SU:MP)

Self-Serving Versus Fair-Minded Critical Thinking: How Important is the Weak Sense/Strong Sense Distinction?

Lenore Langsdorf Perry Weddle Ralph Johnson Robert Ennis

This panel will explore the extent to which it is important to distinguish self-serving from fair-minded critical thinking in designing instruction for critical thinking.

(August 4 10:30-12:00 SU:MP)

Can One Think Critically Without Thinking Creatively? Can One Think Creatively Without Thinking Critically?

Sharon Bailin Lou Miller David Perkins Richard Paul

This panel will consider the degree of interrelationship and interdependence of what are sometimes designated as two different modes of thinking: critical and creative thinking.

(August 5 8:45-10:15 SU:MP)

Critical Thinking and Third World Communities

Greg Sarris Abelardo Brenes
Angel Villárini

This panel will explore the special challenges and obstacles to fostering critical thinking in “third world” communities.

(August 2 3:15-4:45 SU:MP)
What Are State Departments of Education Doing About Critical Thinking?

Mark Weinstein  Fran Claggett  Ken Bumgarner

This panel will explore the general approaches being used to facilitate the infusion of critical thinking into the curriculum in three vanguard states: Washington, California and New York.

(August 4  10:30-12:00  STEV 1002)

Critical Thinking Programs: Strategies for Implementing the Teaching of Critical Thinking

Alice Iaquinta  Theresa Booker  Chuck Wiederhold  Joel Peterson  Sharon Scull

Critical Thinking Programs: Strategies for Implementing the Teaching of Critical Thinking

This panel will introduce a variety of approaches to infusing critical thinking into subject matter instruction, secondary through community college and university level.

(August 4  3:15-4:45  DAR 108)

Critical Thinking and Social Studies

Paul Baker  Ian Wright

Critical Thinking Programs: Strategies for Implementing the Teaching of Critical Thinking

This panel will consider some of the contributions that the new emphasis on critical thinking can have in Social Studies instruction, as well as the various obstacles that need to be overcome in making that emphasis a common classroom reality.

(August 4  1:30-3:00  STEV 1002)

Critical Thinking in Community Colleges: The Title V Mandate in California

John Prihoda  Donald Klein  John Feare  Paul Wheatcroft

Critical Thinking in Community Colleges: The Title V Mandate in California

This panel will focus on critical thinking in community college curriculum and teaching, with special consideration of the "Title Five" mandate which requires that all community college courses be so structured that the ability to think critically is essential to participation in the course.

(August 4  3:15-4:45  SU:MP)

Psychology and Critical Thinking: The Affective Dimension

Hiler, Wesley  Harvey Siegel  David Perkins  Carol Tavis

Psychology and Critical Thinking: The Affective Dimension

This panel will focus on the affective dimension of critical and uncritical thinking, with special consideration of the contribution of clinical and social psychology. Implications for teaching and everyday living will be explored.

(August 3  1:30-3:00  SU:MP)

99
# Mini-Critical Thinking Course

During the conference an actual course in critical thinking will be conducted. Textbook authors and other experienced critical thinking instructors will provide a crash course on a dimension of critical thinking, as follows:

<table>
<thead>
<tr>
<th>Instructor</th>
<th>Topic</th>
<th>Date and Time</th>
<th>Location</th>
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<tbody>
<tr>
<td>Gerald Nosich</td>
<td>Constructing Arguments for Opposing Points of View</td>
<td>Sunday, August 2, 1:30-3:00 pm</td>
<td>STEV 2049</td>
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<tr>
<td>Harvey Siegel</td>
<td>Epistemological Underpinnings of Critical Thinking</td>
<td>Sunday, August 2, 3:15-4:45 pm</td>
<td>STEV 2049</td>
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<tr>
<td>Ralph Johnson</td>
<td>Critical Thinking and Advertising</td>
<td>Monday, August 3, 10:30-12 noon</td>
<td>STEV 2049</td>
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<tr>
<td>John Chaffee</td>
<td>Critical and Creative Problem Solving</td>
<td>Monday, August 3, 1:30-3:00 pm</td>
<td>STEV 2049</td>
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<td>M. Neil Browne, Stuart Keeley</td>
<td>The Unnecessary Tension Between Values Analysis and Critical Thinking</td>
<td>Tuesday, August 4, 10:30-12 noon</td>
<td>STEV 2049</td>
</tr>
<tr>
<td>T. Edward Damer</td>
<td>What the Fallacies Can Teach Us About Good Arguments</td>
<td>Tuesday, August 4, 1:30-3:00 pm</td>
<td>STEV 2049</td>
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<tr>
<td>James Freeman</td>
<td>Argument Diagraming</td>
<td>Tuesday, August 4, 3:15-4:45 pm</td>
<td>STEV 2049</td>
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<tr>
<td>John Hoaglund</td>
<td>Stimulating Thinking About Thinking with Logical Puzzles</td>
<td>Wednesday, August 5, 8:45-10:15 am</td>
<td>STEV 2049</td>
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<tr>
<td>Carol LaBar, Ian Wright</td>
<td>Practical Reasoning and Principle Testing</td>
<td>Wednesday, August 5, 10:30-12 noon</td>
<td>STEV 2049</td>
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## EVENING:

### INFORMAL EXCHANGE OF IDEAS

During the social hours, there will be small group discussions in the Dining Commons Faculty Lounge on the following topics:

**Carol Knight**
- Analyzing Arguments in History and Social Science: An Interdisciplinary Problem and Approach
  - Sunday, August 2, 8:00 pm

**Joan Rosen**
- Guessing: Reading as Prediction
  - Sunday, August 2, 8:00 pm

**Alice Iaquinta**
- Incorporation of Critical and Creative Thinking into the Community College Curriculum: One Unique Approach
  - Sunday, August 2, 8:00 pm

**Roberta Kern**
- The Positive Role that Emotions Play in Critical Thinking
  - Monday, August 3, 8:00 pm

**Joel Peterson**
- Creative Problem Solving
  - Monday, August 3, 8:00 pm

**Theresa Booker**
- Critical Thinking/Reading a Critical Bridge to Academic Achievement
  - Tuesday, August 4, 8:00 pm

**Harvey Lape, Sharon Schwarze**
- Reaching the Abstract Through the Concrete
  - Tuesday, August 4, 8:00 pm

**Facilitator:**
- Donald Klein
  - Roundtable Discussion: Critical Thinking Title V Mandate: Strategies for Implementation
    - Tuesday, August 4, 8:00 pm
    - CS 68
## SPECIAL INTEREST GROUPS
(Tuesday, August 4  7:35-8:35 am)

In order to facilitate networking within critical thinking special interest groups, a special time has been set aside for such groups to organize themselves if they so wish. A facilitator for this process will be present at the meeting but the nature and extent of the organization that is set up will be dependent entirely upon the will of the members present at the meeting. The Center will continue to schedule meeting times for the groups at future conferences if interest justifies such continuance.

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<tr>
<th>1</th>
<th>Elementary (K-6)</th>
<th>STEV 3046</th>
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<tr>
<td>2</td>
<td>Middle School (7-8)</td>
<td>CS 20</td>
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<td>3</td>
<td>High School (9-12)</td>
<td>STEV 3008</td>
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<td>4</td>
<td>Critical Thinking Staff Development (K-12)</td>
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<td>5</td>
<td>Community College</td>
<td>DAR 108</td>
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<td>6</td>
<td>4 Year College and University</td>
<td>STEV 1002</td>
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<td>7</td>
<td>Critical Thinking in Literature and Language Arts (including Sociology, Anthropology, History and Psychology)</td>
<td>DAR 112</td>
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<td>8</td>
<td>Critical Thinking in Social Studies</td>
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<td>9</td>
<td>Critical Thinking in the Arts</td>
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<td>10</td>
<td>Critical Thinking in Science and Math</td>
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<td>11</td>
<td>Critical Thinking Assessment</td>
<td>STEV 3049</td>
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<td>12</td>
<td>Critical Thinker For the Slow or Disadvantaged Learner</td>
<td>STEV 3040</td>
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## VIDEOTAPE RESOURCES

Videotapes are one of the most important developing resources for critical thinking in-service education. They can be used in a variety of ways: 1) as discussion starters, 2) as sources of information on the nature of critical thinking, 3) as models of critical thinking, and 4) as models for classroom instruction. All of the following videotapes have been developed as low-cost resources. No attempt has been made to achieve broadcast quality. Some of these videotapes will be shown in an alcove in the Commons during the evening social hours and during the day in the Student Union downstairs lobby. A complete description of the following Videotapes will be available at the conference registration desk.

- Critical Thinking in Science
- Critical Thinking in History
- Dialogical Practice, Program I
- Dialogical Practice, Program II
- Critical Thinking: The State of the Field
- Socratic Questioning in Large Group Discussion (4th Grade)
- Socratic Questioning in Large Group Discussion (6th Grade)
- Socratic Questioning in Large Group Discussion (7th & 8th Grades)
- Learning How to Think About Thinking
- The Attributes of a Critical Thinker
- Student Insights into Metacognition
- Four-Part Workshop in Critical Thinking Instruction:
  - Part 1: Introduction to the Concept
  - Part 2: Dialogical Practice
  - Part 3: Reciprocity
  - Part 4: Socratic Questions
- Critical and Creative Thinking
- Coaching Teachers Who Teach Critical Thinking
- Critical Thinking and Women’s Issues
- Problems with Teaching How to Use Arguments to Decide What to Believe
- Effective Design for Critical Thinking Inservice
- Critical Thinking and the History-Social Science Curriculum, Grades 9-12
- Bridging the Gap Between Teachers’ Verbal Allegiance to Critical Thinking and Their Actual Behavior
- Teaching Critical Thinking Across the Curriculum
- Language Arts and Critical Thinking for Remedial and Bilingual Students
- A Conception of Critical Thinking
- How to Write Critical Thinking Test Questions
- The Human Image System and Thinking Critically in the Strong Sense
National Council for Excellence in Critical Thinking Instruction

As the term “Critical Thinking” gains greater and greater currency in education, there is a growing number of individuals who are declaring themselves experts in the field and promising to provide short-term training for teachers and simple-to-apply programs and strategies. The purpose of the National Council is to draw upon the collective wisdom of those in leadership in the field to articulate minimal standards for quality in-service and instruction in critical thinking and to help serve as a clearinghouse for information about quality programs and strategies:

Membership

Jonathan Kozol
Fellow, John Simon Guggenheim Memorial Foundation

George Hanford
President Emeritus, College Board

Albert Shanker
President, American Federation of Teachers

Joseph Williams
University of Chicago

Matthew Lipman
Director, Institute for the Advancement of Philosophy for Children

Irving Siegel
Educational Testing Service

Debbie Walsh
Assistant Director, Educational Issues Department, A.F.T.

Trudy Govier
Formerly University of Calgary

John Prihoda
President/Superintendent, Iowa Valley Community College

Jim Williamson
Mathematics Coordinator, Billings Public Schools

Ian Wright
University of British Columbia

Vincent Ruggiero
S.U.N.Y. Delhi College

Michael Scriven
University of Western Australia

David Perkins
Harvard University

Robert Ennis
Director, Illinois Critical Thinking Project

Stephen Norris
Memorial University of Newfoundland

Carolyn Sue Hughes
President Emeritus, A.S.C.D.

John Hoaglund
Christopher Newport College

Ronald Giere
Indiana University, Bloomington

Olga Gallo
Co-director, Critical and Creative Thinking Program

Richard W. Paul
Director, Center for Critical Thinking and Moral Critique

Jonathan Adler
Brooklyn College, C.U.N.Y.

Art Costa
California State University

Carol La Bar
University of British Columbia

Edys Quellmalz
Formerly Stanford University
The Center conducts advanced research, inservice education programs, professional conferences, and disseminates information on critical thinking and moral critique. It is premised on the democratic ideal as a principle of social organization, that is, that it is possible so to structure the arrangements of society as to rest them ultimately upon the freely given consent of its members. Such an aim requires the institutionalization of reasoned procedures for the critical and public review of policy; it demands that judgments of policy be viewed not as the fixed privilege of any class or elite but as the common task of all, and it requires the supplanting of arbitrary and violent alteration of policy with institutionally channeled change ordered by reasoned persuasion and informed consent.*

It conducts its research through an international network of fellows and associates, as follows:

**Honorary Fellows**
Max Black, Professor of Philosophy, Cornell University, Ithaca, NY
Robert Ennis, Director, Illinois Thinking Project, University of Illinois, Champaign, IL
Edward M. Glaser, Psychologist, Founder, Watson-Glaser Critical Thinking Appraisal, Los Angeles, CA
Matthew Lipman, Professor of Philosophy, Founder and Director, Institute for the Advancement of Philosophy for Children, Montclair, NJ
Israel Scheffler, Thomas Professor of Education and Philosophy, Harvard University, Cambridge, MA
Michael Scriven, Professor of Philosophy, University of Western Australia, Nedlands, Australia

**Research Associates**
J. Anthony Blair, Professor of Philosophy, University of Windsor, Ontario, Canada
Carl Jensen, Associate Professor of Communications Studies, Sonoma State University, Rohnert Park, CA
Ralph Johnson, Professor of Philosophy, University of Windsor, Ontario, Canada
Don Lazere, Professor of English, California Polytechnic State University, San Luis Obispo, CA
Perry Weddle, Professor of Philosophy, California State University, Sacramento, CA
Ian Wright, Professor of Education, University of British Columbia, British Columbia, Canada
Joel Rudinow, Assistant Professor of Philosophy, Sonoma State University, Rohnert Park, CA
Teaching Associates

Robert Ennis, Center Fellow
Carl Jensen, Center Research Associate
Don Lazere, Center Research Associate
Richard Paul, Director
Dianne Romain, Assistant Professor of Philosophy, Sonoma State University
Douglas Martin, Associate Professor of Chemistry, Sonoma State University
Joel Rudinow, Center Research Associate

Director

Richard W. Paul, Center for Critical Thinking and Moral Critique

The work of the Center includes an annual international Conference on Critical Thinking and Education; Master's Degree in Education with emphasis in Critical Thinking; Supplementary Authorization Program in the teaching of critical thinking (under the Single Subject Waiver Credential Program of the State of California); inservice programs in the teaching of critical thinking; Research Intern program (for graduate students in the field of critical thinking and moral critique); a resource center for the distribution of tests, documents, position papers; and research in the field of critical thinking and moral critique and in the reform of education based upon the teaching of reasoning and critical thinking skills across the curriculum. Other recent contributors include the historian Henry Steele Commager and George H. Hanford, President of the College Board.

Center for Critical Thinking and Moral Critique
Sonoma State University
Rohnert Park, CA 94928

*Israel Scheffler, Reason and Teaching (1973, Bobbs-Merrill Co., Inc.) page 117
NOTES

Richard Paul
Carol Tavris
Jan Talbot
Tony Blair