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

Program
and
Abstracts

Under the Auspičes
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 critical thinking that are essential components of the rational person. 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 assent 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 than 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 1").

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.
SUNDAY, AUGUST 2

8:00-9:00 am
REGISTRATION
Student Union

9:00-10:15 am
Richard W. Paul Director, Center for Critical Thinking and Moral Critique
Teaching Critical Thinking: Skill, Commitment and the Critical Spirit, Kindergarten through Graduate School
Commencement Area

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
Mark Weinstein  
**Critical Thinking and Moral Education**  
STEV 3040  G

### 12:00-1:30 pm

Lunch

### 1:30-3:00 pm

David Perkins  
*What Makes Science Concepts Hard to Understand?*  
IVES: Warren  G

Jan Talbot  
*Effective Integration of Critical Thinking Across the Curriculum: Johnny and Jane CAN Think*  
IVES 119  K-12

Robert Swartz, Richard Paul, Luiza Amodeo  
*What is the Appropriate Role of Critical Thinking in Pre-Service Education?*  
SU:MP  G

George Hanford  
*Unexpected Connections*  
STEV 1002  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 Emnis  
*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*  
NICI 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*  
SU:MP  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*  
NICI 173  G, CC, U

Marlys Mayfield  
*Teaching Recognition of Viewpoint: Working with Student Naivete About Where Ideas Come From*  
STEV 3040  G
(Sunday, August 2)
8:00-11:00 pm
Beer and Wine Social
Dining Commons
Informal Exchange of Ideas
Dining Commons Faculty Lounge
Videotape Program
Dining Commons Alcove

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
SUMP 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
The Contribution of Moral Critique and Critical Thinking to the
Emergence of the Independent Education Movement and the
Alternative Society in Poland (1976-1986)
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

George Collison
Supposing in Geometry and Algebra: Induction and Computers in
the Mathematics Curriculum
NICH 173 E, JH

Lauren Coodley
Math Without Fear: Teaching Students Critical Thinking about
Math Education, Technology, and the Tyranny of the Right Answer
STEV 3040 K-12, G

T. Edward Damer
Teaching Critical Thinking with Fresh Real-Life Arguments
NICH 166 CC, U

Joel Rudinow
How to Use the Media Critically, Part 1
STEV 1063 G Space limited; Session to be taped;
No late admissions.

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
SUMP 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
(Monday, August 3
10:30-12:00 cont.)

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
NIC 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
NIC 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

Lunch

12:00-1:30
1:30-3:00 pm

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
1:30-3:00 cont.)

John Chaffee
Mini-Critical Thinking Course: Critical and Creative Problem Solving
STEV 2049  G

Gerald Nosich
On Teaching Critical Thinking
DAR 112  CC, U

Thomas Jackson
Philosophy for Children: A Hands-on Demonstration, Secondary Level
STEV 3046  JH, HS

Edward D’Angelo
Teaching Critical Thinking in Third and Fifth Grade
STEV 3049  E

George Collison
Problem Solving in the Writing Curriculum
NIC 173  E-HS, G

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

T. Edward Damer
Can Critical Thinking Save Us From Relativism?
NIC 166  G, CC, U

Richard Paul
How to Help Teachers to Infuse Critical Thinking by Helping Them to Develop Skill in Remodelling Their Present Lessons
STEV 1063  E  Space limited; Session to be taped; No late admissions

3:15-4:45 pm

John Barell, David Perkins
Supervision for Critical Self-Reflection upon Teaching
IVES: Warren  K-12

Donald Lazere, Glenn Irvin, Jere Jones, Fred Korn, Rexford Brown, George Hanford
Critical Thinking and Curriculum Reform in Secondary and Higher Education
SU:MP  JH-U

Edward M. Glaser
Using the Watson-Glaser Critical Thinking Appraisal (CTA) as a Teaching as well as Testing Tool
STEV 1002  G

John Alexander, Nancy Shea, Pat Harveson, Kerry Anderson, Cindy Korach
The Philosophy for Children Program at Elk Grove School District: A Report
ART 108  E
Banquet (purchase tickets at Conference Desk; space limited.)

Dining Commons

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 Pragmatic-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

(Tuesday, August 4
7:35-8:35 cont.)

Critical Thinking in the Arts NICH 173
Critical Thinking in Science/Math NICH 166
Critical Thinking Assessment STEV 3049
Critical Thinking for Slow/Disadvantaged Learners 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
10:30-12:00 noon

David Perkins
What the Mind is Made Of
IVES: Warren  G

Ralph Johnson, Lenore Langsdorf, Perry Weddle, Robert Ennis
Self-Serving Versus Fair-Minded Critical Thinking: How Important is the Weak Sense/Strong Sense Distinction?
SU:MP  CC, U

Mark Weinstein, Ken Bumgarner, Fran Claggett
What Are State Departments of Education Doing About Critical Thinking?
STEV 1002  E-U, G

Michael Rich
The Use of the Emotions in Critical Thinking
ART 108  G

Angel Villarini
Teaching Critical Thinking Through Moral Deliberation: An Interdisciplinary Approach to the Humanities
DAR 108  G, CC, U

Dianne Romain
Critical Thinking, Creativity, and Play
STEV 3008  K-12, G

M. Neil Browne, Stuart Keeley
Mini-Critical Thinking Course: The Unnecessary Tension Between Values Analysis and Critical Thinking
STEV 2049  G

John Barell
Networking Electronically for Teaching Critical Thinking
DAR 112  K-12

Donald Lazere
Composition for Civic Literacy
STEV 3046  G, CC, U

Sheldon Berman
A Thinking Skills Model for Teaching About Controversial Issues
STEV 3049  JH, HS, U

12:00-1:30

Lunch

1:30-3:00 pm

Jan Talbot
Teaching Thinking Strategies Across the Curriculum: The Higher Order Thinking (H.O.T.) Project
IVES 119  K-12

Richard Paul, Carol Tavris
Culture and Critical Thinking: The Danger of Group- or Culture-Bound Thought
SU:MP  G

Paul Baker, Ian Wright, Chuck Staneart
Critical Thinking and Social Studies
STEV 1002  G

Donald Lazere
Bias in Academia
ART 108  G

Ann Kerwin, Marlys Witte
Learning and Teaching the Unknown Pathway to Finding "Intellectual Virtues"
DAR 108  G, U

Donald Hatcher
Critical Thinking Techniques and Methodological Absolutism
CS 68  CC, U

Linda Bomstad, Linda Forsyth, Phil Fetzer
The Folsom-Cordova Critical Thinking Project
STEV 3008  K-12

T. Edward Darner
Mini-Critical Thinking Course: What the Fallacies Can Teach Us About Good Arguments
STEV 2049  G

Carol La Bar
Critical Thinking Distinctions
DAR 112  HS, G
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 Cleggert, 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 Diagraming
STEV 2049 G

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

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

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 Leckley, 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 Kerns, 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

The Critical Thinking Worksheet

Educating a Trained Society: Emotional Maturation/Development

Agnew, Priscilla

Professor
Department of Philosophy
Saddleback College
28000 Marguerite Parkway
Mission Viejo, CA 92692

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
Co-Presenters
Hirsch, Judi
Lichtman, Richard

Taking Care of Ourselves

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)

Bagakis, Gus
Professor
Department of Philosophy
San Francisco State University
1600 Holloway Avenue
San Francisco, CA 94112

Teaching Critical Thinking-A World View Approach

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 egocentricity.

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)

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

The Myths of Creativity

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.
Professor / Author
Department of Educational Administration and Foundations
331 De Garmo Hall
Illinois State University
Normal, IL 61761-6901

Preparing Well Informed Citizens: A Critical Thinking Approach for Social Studies

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, 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 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)

Barell, John 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)
Critical Thinking & English—An Integrated Curriculum

Bezerra-Nader, Rosemarie
Lecturer, California State University, Fresno
Teacher, Edison-Computech School, Fresno
7645 N. DeWolf
Clovis, CA 93612

Participants will be given specific methods for integrating critical thinking in English classes. Topics will include: literature, term paper writing on controversial issues, using analogies in writing, and the use of TV and video productions. Sources of information, student work, and a student made video production will be shared. Hand-outs will be given.

(August 5 8:45-10:15 STEV 3049)

Bezerra-Nader, Rosemarie
Critical Thinking—An Antidote for Negative Stress

Participants will gain an understanding of the use of critical thinking skills as antidotes for reducing negative forms of stress which are widespread in schools (e.g. peer pressure, drugs, depression, poor self-esteem, and decision making). Specific model lessons will be presented and shared; these lessons rely on critical thinking skills to facilitate a teacher in addressing the issue of stress at the same time he/she is teaching in content areas. Numerous hand-outs will be given.

(August 5 1:30-3:00 CS 68)
Critical Thinking in Costa Rica

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 metalanguages and pedagogical strategies.

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

Lesson Remodelling for Critical Thinking (K-6)

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)

The Folsom-Cordova Critical Thinking Project

Bomstad, Linda
Professor
Department of Philosophy
California State University, Sacramento
6000 J Street
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Co-Presenters
Forsyth, Linda
Consultant
Gifted and Talented Education
California State Department of Education
P.O. Box 94272
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)

Critical Thinking and the Ethics of Development

Brenes, Abelardo

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)
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)

**Carpenter, C. Blaine**  
Professor  
Department of Biology  
Clayton State College  
Morrow, GA 30260

The purpose of Clayton State College's project is to develop a coherent, unified general education program which contributes to the development of generic skills and perspectives and the integration of these into a framework within which an individual is able to approach learning and living. Clearly defined outcomes which provide focus for curriculum and instruction and valid procedures for assessing these outcomes must be the foundation of such a program. Two of these outcomes - Critical Thinking and Communication - are skills-related, and six of these - aesthetic, contemporary, historical, mathematical, scientific, and value - are knowledge-based frames of reference within which one understands, interprets, and evaluates what he encounters.

In April 1984, multidisciplinary committees (Outcome Councils) were appointed and charged to plan and coordinate all work related to the incorporation of these outcomes in the general education program of the college. Since their inception, these Councils have been working on the description, components and the development of a process and means for the college-wide assessment of the outcomes. It is the intent of this workshop to 1) give a brief historical view of CSC's general education program, 2) describe the current status of the Critical Thinking, Contemporary Perspective and Value Perspective Outcomes, 3) discuss the "Conceptual Framework" for integrating Critical Thinking into the CSC curriculum using Contemporary and Value Perspectives as examples, and 4) give examples of potential assessment instruments that are to be used on a pilot basis to assess Critical Thinking at CSC.

This project was supported in part by a grant from the U.S. Department of Education: Fund for the Improvement of Post-Secondary Education. Grant #116AH31114

(August 4 1:30-3:00 NICH 166)

**Chaffee, John**  
Professor / Author  
Department of Philosophy  
La Guardia Community College  
Long Island City, NY 11101

This session will explore an established interdisciplinary program which teaches and reinforces fundamental thinking skills and critical attitudes across the curriculum. The program is centered around Critical Thought Skills, a course specifically designed to improve the thinking, language and symbolic abilities of entering college students. The course has been integrated into the curriculum through an NEH funded project of faculty training and curriculum re-design. In addition to reviewing the structure, theoretical perspective and evaluative results of the program, special attention will be given to exploring practical approaches for developing thinking abilities.

(August 2 1:30-3:00 ART 108)
Supposing in Geometry and Algebra: Induction and Computers in the Mathematics Curriculum

Collison, George
Computer Coordinator
Holyoke Public Schools
500 Beech Street
Holyoke, MA 01040

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)
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.

Critical Thinking in the Classroom: Information, Implication, Inference

The traditional goal of education has been the teaching of information to students. Although lip service has been paid to teaching them how to use such information, teaching and testing have concentrated on the banking model of learning. The proliferation of information in our times has made the situation more serious. Students seem unable to distinguish between strings of facts and implied relationships. Similarly, in constructing arguments they often “let the facts speak for themselves”, they establish no explicit connections between the facts. The sheer volume of information surrounding us makes establishing connections almost superfluous. It must be shown that ‘almost’ is not good enough.

As a first step, it is essential that information be acquired, clarified, organized and understood. The use of information in reasoning processes must then be taught. The study of logical implication connects information acquired with the process of inference. My courses and workshops in teacher education in critical thinking are organized around this structure. At each stage, teachers use the same overall format, so that no skill is taught in a vacuum. Each lesson or unit must incorporate this goal. Gathering information, rules of implication and methods of inference are connected in all teaching.

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 3 1:30-3:00 NICH 173

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
Nicholas T. Edward

Teaching Critical Thinking with Fresh Real-Life Arguments

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.

Darner, T. Edward

Can Critical Thinking Save Us From Relativism?

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 not, 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?

Costa, Art

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

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 mediative 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.

Darner, T. Edward

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

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.
DeCapite, Connie
Reading Resource Specialist / Mentor Teacher,
Santa Ana Unified School District
601 W. Alpine
Santa Ana, CA 92707

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

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

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)

Ennis, Robert H.
Writing Critical Thinking Test, Parts 1 and 2

Professor
Department of Educational Policy Studies
University of Illinois, Urbana-Champaign
1310 South Sixth Street
Champaign, IL 61801

Robert H. Ennis, co-author of five critical thinking tests, will examine problems in making critical thinking tests, and will suggest guidelines for writing critical thinking test items and tests. Participants will form small groups and practice writing items. Results will be discussed. Participants should plan to attend both sessions.

(August 2 10:30-12:00 STEV 3008 Part 1)
(August 2 1:30-3:00 STEV 3008 Part 2)

Edwards, Joe
Teacher, Social Science
McKinleyville High School
1300 Murray Road
McKinleyville, CA 95521

Co-Presenters
Edwards, Allan
Teacher, English
McKinleyville High School

Duran, David
District Superintendent
North Humboldt Union High School Dist.
1300 Murray Road
McKinleyville, CA 95521

The purpose of this demonstration is threefold: 1) to demonstrate the value of a strong, ongoing staff development program as a prerequisite to implementation of critical thinking into the curriculum, 2) to review past and present strategies for full implementation of critical thinking into the curriculum, and 3) to present our current state of progress.

To achieve the above aims, we will explain how our staff development program evolved and led to national recognition from the Carnegie Foundation and in turn led to first steps toward full infusion of critical thinking into the district's curriculum. In this context, we will discuss the implementation of district programs and Project Impact and how they serve the needs of our staff development model. There will be an explanation of previous strategies and challenges to implementing critical thinking that have spanned several years and how this advanced planning avoids the danger of superficial "reform."

(August 5 8:45-10:15 DAR 112)
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 5 1:30-3:00   NICH 166)
Fisher, Alec
Professor
School of Economic & Social Studies
University of East Anglia
Norwich, England, NR47JT

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)
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 incorporated 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)

Grootendorst, Rob

Professor
Universiteit van Amsterdam
Instituut voor Neerlandistiek
Spuistraat 134
1012 VB Amsterdam
Netherlands

Co-Presenter
van Eemeren, Frans H.

Professor
Universiteit van Amsterdam
Instituut voor Neerlandistiek

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)
An educational bureaucrat’s interest in critical thinking has led to some unexpected encounters with such diverse topics as legislation, hoola hoops, *Howards End*, the bulls of Pamplona and the Sistine Chapel — encounters generated by the growing influence of the critical thinking movement.

(Hanford, George)

Unexpected Connections

President Emeritus
The College Board
45 Columbus Avenue
New York, NY 10023

Grootendorst, Rob

Co-presenter
van Eemeren, Frans H.

Argumentation and Fallacy
Analysis in a Pragmatic-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.

(Haugen, J. Robert)

Critical Thinking: Teaching Strategies to Involve All Students in Higher Level Cognitive Processes

President
Haugen, 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 thought 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.

(Haugen, Donald)

Critical Thinking Techniques and Methodological Absolutism

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.

Hatcher, Donald

Critical Thinking and Ethical Absolutes

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.
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.

Hoaglund, John
Teaching Critical Thinking to Students in Remedial and Special Education Classes: Feuerstein's Theories on the Nature of Learning and Intelligence

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.

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

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Hoaglund, John
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.

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

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

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 FALLACIES 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.

Irvin, Glenn
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.
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.

...
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)

Jones, Jere

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

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)

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)

Kerwin, Ann

Ignorance, Illumination and Inquiry

This participatory workshop is designed to offer teachers from primary through university levels a "hands-on" exposure to teaching and learning from the point of view of the not-known. Dr. Kerwin will share her experiences and materials from a seminar she recently led: topics include Creativity; Wondering; Discovery; "Frontier" Thinking; Reason, Intuition, and Observation; Ambiguity, Complexity, and Uncertainty, etc. Participants will explore collectively issues of choice from the point of view of the not-known and will prepare a concrete design based on their own teaching interests.

(August 3 10:30-12:00 STEV 3049)

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.

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(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

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)—Edu-Caring: 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

Critical Thinking Distinctions

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.

(August 4 1:30-3:00 DAR 112)
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.

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

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

Left wing right 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!

Mayfield 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

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)

Miller, Lou

Critical Thinking and Self-Growth

The ultimate purpose to which critical thinking in the "strong" sense can be put is to develop a more profound understanding of one's inner self. The stronger our critical capacities become, the more capable we are of viewing with objectivity those assumptions, philosophies, and beliefs which form the core of our beings. The Socratic method of questioning aims not only at improving our abilities to become better thinkers and more responsible citizens, but at strengthening our souls. While most teaching does not attempt to influence students at this level, any critical undertaking is aided by an understanding of the deepest sense in which this process can be employed. In support of this viewpoint I will present a model which provides a conceptual foundation for this approach to strong sense critical thinking, clarify the model using examples from a variety of disciplines and classroom experiences, and close with a slide show which offers an aesthetic statement about the subject.

(August 3 1:30-3:00 CS 68)

Minkler, Doug

“Art is Not a Mirror Held Up to Reality But a Hammer with Which to Shape It”

—Bertolt Brecht

Using the poster as their medium, students in my fifth and sixth grade art classes have taken on the oil companies and the tobacco industries. Come see the Barbboro and Virginia Slims full color counter-ads as well as the oil refinery posters. Let's discuss similar projects you've taken on, thought of taking on, or never even dreamed you would be able to attempt, and brainstorm on how to make the theoretical abstract classroom into an activist workshop.

(August 3 10:30-12:00 IVES 119)
Missimer, Connie

Humor and Other Fun Ways to Achieve Empathy

Alas, critical thinking contains the work "critical", the first definition of which is "to judge harshly." So already we're off on the wrong foot if we want students to achieve empathy for views opposed to their own. Although humor has certainly been used in harsh judgment, it can do wonders to create a sympathetic hearing of opposing arguments. It doesn't require a stand-up comic to create this effect (you can steal material from funny people). Further, light-heartedness as a general stance paradoxically produces more serious critical thinking and greater empathy. A "mini-lecture" along with other examples will be happily provided, and ideas solicited from the group.

(August 3 10:30-12:00 DAR 112)

Missimer, Connie

Critical Thinking and Intellectual Virtues: Can You Have Your Cake and Eat It Too?

Implicit in critical thinking is readiness to challenge basic principles. Then wouldn't critical thinking have to leave open to question the very intellectual virtues on which it rests? Shouldn't we question the validity of intellectual virtues such as courage to face our prejudices, or the obligation to hear out the strongest counterargument to what we believe? Yet implicit in intellectual virtues is their fixity. As Paul puts it, "...we must typically persevere over a period of time, for learning to empathically enter a point of view against which we are biased takes time and effort." This lecture grapples with the dilemma that critical thinking requires intellectual movement while moral virtue requires intellectual constancy.

(August 3 3:15-4:45 CS 68)

Moore, Kathleen Dean

Gullibility and Mistakes in Scientific Reasoning

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)

Morse, Ogden

Subject Matter and Moral Development in Domain Specific Classrooms

Our belief is that moral development occurs best through a process which, over a period of time, allows a student to consider a range of ideas and values, to test these ideas in the marketplace, and to integrate them into a personally and socially acceptable philosophy. Is this approach possible in a subject-matter classroom at the secondary level? Do we have the right to engage students in this area? Or is it an obligation? Is there enough time? Won't the student's knowledge of the subject suffer? What techniques or strategies can the classroom teacher use? The purpose of this workshop is to answer these questions by illustrating how classroom texts can be used to generate moral questions, how collaborative learning techniques can stimulate the exploration of these topics, and how critical thinking skills control the analysis and evaluation of ideas and concepts. Participants will function as secondary school students as they go through the classroom activities of a model lesson. There will also be material from thinking skills texts, a learning model, and a videotape of a class in action.

(August 2 1:30-3:00 DAR 112)
Using a "Thinking Jigsaw" to Explore Supreme Court Decisions

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)

Nosich, Gerald  
Mini-Critical Thinking Course: Constructing Arguments for Opposing Points of View
In this workshop, I'll go over some techniques and steps for constructing arguments as well as some strategies for teaching argument construction. The techniques covered include how to clarify what you're trying to argue for, how to give plausible, relevant reasons, how to identify and support the weakest parts of the argument, and how to use argument construction as a basis for writing term papers. In the spirit of strong-sense critical thinking, we'll concentrate on constructing arguments for positions to which we're opposed, and we'll try to make the best case for them we can.

(I would like participants in the workshop to think of one or two examples of positions that (a) are held by vocal minorities today but which (b) in your opinion seem dead-wrong or ridiculous.)

(August 2  1:30-3:00  STEV 2049)

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)
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.

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

Paul, Richard W.

Critical Thinking Staff
Development: Developing Faculty Critical Thinking and Critical Teaching Skills

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.

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

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 remodell 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 models 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.

(August 3 1:30-3:00 STEV 1063)

Paul, Richard W.

Culture & Critical Thinking: The Danger of Group- or Culture-bound Thought

One danger for thought is social or cultural blindness. In this case our critical thinking results in misjudgments of others. Another, but opposite, danger is the refusal to make any judgments about any culture but our own. Carol Tavris and Richard Paul will discuss the nature and significance for education of these deepseated problems. The issue is, in other words, how can we so structure instruction so that students learn how to recognize and overcome their group-bound and culture-bound thinking?

(August 4 1:30-3:00 SU:MP)

Paul, Richard W.

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.

(August 3 8:45-10:15 IVES: Warren)

Payne, William

American History on Trial

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.

(August 5 10:30-12:00 STEV 3008)
Pearls, Art

Thinking Critically About Critical Issues

Democratic Schooling consists of four interrelated components: 1) equal preparation for debate of critical social issues — war, poverty, justice, ecocide, dehumanization; 2) equal opportunity for everyone to participate in meaningful decision-making; 3) universal rights of expression, privacy, due process (presumption of innocence, right to counsel, right not to testify against self, access to independent judge and tribunal, and protection from cruel and unusual punishments) and movement; and, 4) equal encouragement of all to succeed in all of society’s legal endeavors—work, politics, culture, leisure and interpersonal relations. A democratic school is a place where students do an apprenticeship in all of the above. This will be a talk that calls for excellence in education but it differs greatly from the popular movement that is advertised as “excellence.” It is my contention that only with democracy can there be true excellence; the new “reforms” are coercive, unaccountable in any meaningful sense and ultimately intellectually inadequate.

Be prepared for a lively, challenging discussion and debate. This presentation is open to all areas of education.

(August 2 1:30-3:00 STEV 3049)

Perkins, David

What Makes Science Concepts Hard to Understand?

The learning of science with genuine understanding has emerged as a pressing educational problem not only in pre-university education but even at the university level. Science “misconceptions” prove prevalent in students even after a year or two of physics or chemistry. In this informal lecture, we explore through examples some of the factors that lead to deeply rooted misunderstandings of scientific concepts and examine some of the educational strategies that might serve to help students toward real comprehension.

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

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 reason. 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.

(August 3 8:45-10:15 STEV 1002)

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?

(August 3 3:15-4:45 NICH 173)
Critical Thinking and High School Science

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 4 10:30-12:00 STEV 3046)

Critical Thinking and Ethics in Education

Prihoda, John
President
Iowa Valley Community College District
P.O. Box 536
Marshalltown, IA 50158

One of the greatest concerns of faculty and administrators is how to provide time for critical thinking to occur in the classroom. In this workshop, participants will be guided through a review of the findings of the mini-session held during last year’s Sonoma Conference, a discussion of prevailing instructor and administrator practices and how we arrived at this point, and ways to work within current classroom and administrative structures to provide opportunities for critical thinking to occur. The underlying theme is ethics in teaching and administrating. This session is for administrators and faculty at all levels.

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

The Use of the Emotions in Critical Thinking

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)

Critical Thinking, Creativity, and Play

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)
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)

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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)

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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)

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Ruggiero, Vincent Ryan  
**Profile of a "Thinking Person"**

Critical 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)

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

This presentation will detail a holistic approach to teaching thinking 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

Co-director
Critical and Creative Thinking Program
University of Massachusetts
Boston, MA 02125

Robert Swartz of the Critical and Creative Thinking Program at the University of Massachusetts at Boston will demonstrate and discuss lessons and techniques that infuse a focus on critical thinking into classroom instruction by restructuring traditional content. The concept of critical thinking that is utilized will be discussed as well as issues about the structure of instructional programs in schools and school systems, that can foster this kind of integration. Lessons will be demonstrated at both elementary and secondary school areas.

(August 2 10:30-12:00 STEV 1002)

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 explicaded.

(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.) Project currently underway, under the direction of H.O.T. Project Director, Edys Queilmez 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 unable 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.
Professor
Faculty of General Studies
University of Puerto Rico
San Juan, PR 00931

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
Assistant Director
Educational Issues Department
American Federation of Teachers
555 New Jersey Avenue N.W.
Washington, DC 20001

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
Professor
Department of Philosophy
Solano Community College
P.O. Box 246
Suisun City, CA 94585

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

Professor/Author/Editor, CT NEWS
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

Director, Reasoning Skills Project
College of Education
Queens College, CUNY
Flushing, NY 11367

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)
Wright, Ian  
Professor  
Faculty of Education  
University of British Columbia  
Vancouver, B.C.  
Canada V6T 1Z3  

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)  

Zelazkiewicz, Marek  
Professor of Sociology, University of Warsaw, Poland / Visiting Professor  
Department of Sociology  
University of California, Los Angeles  
Los Angeles, CA 90024  

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)  

Carol Knight  
Professor  
tidewater Community College  
Chesapeake, VA 23320  

This panel will focus on alternative models and strategies for fostering critical thinking instruction across the college and university curriculum.  

(August 3  8:45-10:15  SU:MP)  

Vivian Rosenberg  


Roberta Kern  
Educational Consultant  
1314 N.E. 43rd Street, Suite 212  
Seattle, WA 98105  

Assuming that there is an on-going set of interactions between the thoughts, feelings, and emotions of the thinker, how should we take this into account in attempting to foster fair-minded critical thinking? The panelists will explore this question.  

(August 5  10:30-12:00  STEV 1002)  

Critical Thinking in European Education  

Chair: Richard W. Paul  

W.D. Robinson  
Professor  
Edge Hill College of Higher Education  
St. Helens Road, Ormskirk  
Lancashire, Great Britain L394QP  

This panel will focus on the nature and role of critical thinking in European Education today, with special attention to Great Britain, the Netherlands, and Poland.  

(August 3  10:30-12:00  SU:MP)
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)

Critical Thinking and Third World Communities

Greg Sarris  Angel Villárini
Abelardo Brenes

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
Professor  Coordinator
Department of Communications and Reading/Reasoning Center
Social Service  Northwestern Illinois University
Moraine Park Technical Institute  5500 N. St. Louis Avenue
2131 North Main Street  Chicago, IL 60605
West Bend, WI 53095-1598
Chuck Wiederhold
Curriculum Consultant
Glenbrook Community College
360 Nevada Street  7411 85th Avenue North
Auburn, CA 95603-3779  Minneapolis, MN 55445

Sharon Scull
Associate Professor
Department of English
Glendale Community College
1500 North Verdugo Road
Glendale, CA 91208

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
Chuk Staneart
Chair, Region 7 History-Social Science
Assessment Steering Committee
Huntington Beach Unified High School District
10251 Yorktown Avenue
Huntington Beach, CA 92646

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

Chair: John Prihoda  John Feare
Donald Klein  Paul Wheatcroft
Professor / Facilitator, Title V  Professor
Critical Thinking Group  Department of Philosophy
Gavilan College  Grossmont College
5055 Santa Teresa Boulevard  8800 Grossmont College Drive
Gilroy, CA 95020  El Cajon, CA 92020

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
Clinical Psychologist  David Perkins
300 Stony Point Road  Carol Tavis
Santa Rosa, CA 95401

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)
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:

**Gerald Nosich**  
**Constructing Arguments for Opposing Points of View**  
Sunday, August 2, 1:30-3:00 pm  
STEV 2049

**Harvey Siegel**  
**Epistemological Underpinnings of Critical Thinking**  
Sunday, August 2, 3:15-4:45 pm  
STEV 2049

**Ralph Johnson**  
**Critical Thinking and Advertising**  
Monday, August 3, 10:30-12 noon  
STEV 2049

**John Chaffee**  
**Critical and Creative Problem Solving**  
Monday, August 3, 1:30-3:00 pm  
STEV 2049

**M. Neil Browne, Stuart Keeley**  
**The Unnecessary Tension Between Values Analysis and Critical Thinking**  
Tuesday, August 4, 10:30-12 noon  
STEV 2049

**T. Edward Damer**  
**What the Fallacies Can Teach Us About Good Arguments**  
Tuesday, August 4, 1:30-3:00 pm  
STEV 2049

**James Freeman**  
**Argument Diagraming**  
Tuesday, August 4, 3:15-4:45 pm  
STEV 2049

**John Hoaglund**  
**Stimulating Thinking About Thinking with Logical Puzzles**  
Wednesday, August 5, 8:45-10:15 am  
STEV 2049

**Carol LaBar, Ian Wright**  
**Practical Reasoning and Principle Testing**  
Wednesday, August 5, 10:30-12 noon  
STEV 2049

**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.

1. Elementary (K-6) STEV 3046
2. Middle School (7-8) CS 20
3. High School (9-12) STEV 3008
4. Critical Thinking Staff Development (K-12) STEV 2049
5. Community College DAR 108
6. 4 Year College and University STEV 1002
7. Critical Thinking in Literature and Language Arts DAR 112
8. Critical Thinking in Social Studies CS 68 (including Sociology, Anthropology, History and Psychology)
9. Critical Thinking in the Arts Nich 173
10. Critical Thinking in Science and Math Nich 166
11. Critical Thinking Assessment STEV 3049
12. Critical Thinker For the Slow or Disadvantaged Learner STEV 3040

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**

<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
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<tbody>
<tr>
<td>Jonathan Kozol</td>
<td>Fellow, John Simon Guggenheim Memorial Foundation</td>
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<tr>
<td>George Hanford</td>
<td>President Emeritus, College Board</td>
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<tr>
<td>Albert Shanker</td>
<td>President, American Federation of Teachers</td>
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<tr>
<td>Joseph Williams</td>
<td>University of Chicago</td>
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<tr>
<td>Matthew Lipman</td>
<td>Director, Institute for the Advancement of Philosophy for Children</td>
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<tr>
<td>Irving Siegel</td>
<td>Educational Testing Service</td>
</tr>
<tr>
<td>Debbie Walsh</td>
<td>Assistant Director, Educational Issues Department, A.F.T.</td>
</tr>
<tr>
<td>Trudy Govier</td>
<td>Formerly University of Calgary</td>
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<tr>
<td>John Prihoda</td>
<td>President/Superintendent, Iowa Valley Community College</td>
</tr>
<tr>
<td>Jim Williamson</td>
<td>Mathematics Coordinator, Billings Public Schools</td>
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<tr>
<td>Ian Wright</td>
<td>University of British Columbia</td>
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<tr>
<td>Vincent Ruggiero</td>
<td>S.U.N.Y. Delhi College</td>
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<tr>
<td>Michael Scriven</td>
<td>University of Western Australia</td>
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<tr>
<td>David Perkins</td>
<td>Harvard University</td>
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<tr>
<td>Robert Ennis</td>
<td>Director, Illinois Critical Thinking Project</td>
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<tr>
<td>Stephen Norris</td>
<td>Memorial University of Newfoundland</td>
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<td>Carolyn Sue Hughes</td>
<td>President Emeritus, A.S.C.D.</td>
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<td>John Hoaglund</td>
<td>Christopher Newport College</td>
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<td>Ronald Giere</td>
<td>Indiana University, Bloomington</td>
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<tr>
<td>Dolores Gallo</td>
<td>Co-director, Critical and Creative Thinking Program U-Mass.-Boston</td>
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<tr>
<td>Richard W. Paul</td>
<td>Director, Center for Critical Thinking and Moral Critique</td>
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<tr>
<td>Jonathan Adler</td>
<td>Brooklyn College, C.U.N.Y.</td>
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<tr>
<td>Art Costa</td>
<td>California State University</td>
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<td>Edys Quellmalz</td>
<td>Formerly Stanford University</td>
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Center for Critical Thinking & Moral Critique
Sonoma State 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