


THE 15TH INTERNATIONAL CONFERENCE ON

Critical Thinking & Educational Reform

SPONSORED BY THE CENTER FOR CRITICAL THINKING AND
MORAL CRITIQUE




PROCEEDINGS OF

**THE
FIFTEENTH ANNUAL
INTERNATIONAL CONFERENCE
ON
CRITICAL THINKING AND
EDUCATIONAL REFORM**

Three Waves of
Research and Practice

JULY 30–AUGUST 2, 1995



SPONSORED BY THE

Center for Critical Thinking and Moral Critique
SONOMA STATE UNIVERSITY
(707) 664-2940



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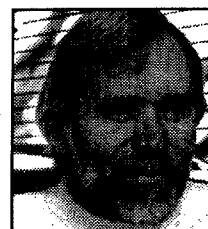
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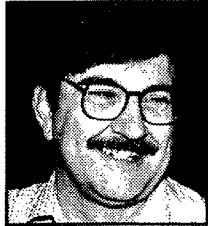
RICHARD W. PAUL, Director of the Center for Critical Thinking, is an internationally recognized authority on critical thinking, with five books and over 50 articles published on the subject. Professor Paul has given lectures on critical thinking at many universities in both the United States and abroad, including Harvard, the University of Chicago, the University of Illinois, and the universities of Puerto Rico, Costa Rica, and Amsterdam. He has been regularly teaching beginning and advanced courses in critical thinking at the university for over 14 years. His workshops have been attended by thousands of educators, both K-12 and university.

***Re-thinking the Critical Thinking Movement:
Three Waves of Research and Practice***

Presentation time and location:
July 30, Sunday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre

How to Catch the Third Wave

Presentation time and location:
August 2, Wednesday, 1:30 P.M. - 3:00 P.M.
Warren Auditorium



GERALD NOSICH is a noted authority on critical thinking and the author of *Reasons and Arguments*. He is presently working on a book on critical thinking across the curriculum. His ability to give subject-specific examples of critical thinking, as well as his command of diverse teaching strategies, have made him a popular staff development leader. A regular presenter at conferences on critical thinking, he has also given many workshops across the country.

On the Need for Comprehensiveness in Critical Thinking

Presentation time and location:
July 30, Sunday, 7:00 P.M. - 8:15 P.M.
Evert Person Theatre



LINDA ELDER, an educational psychologist, has extensive experience in designing and executing instructional curricula for a wide variety of groups from elementary to higher education. She has lead numerous critical thinking workshops for educators and other non-profit agencies in topics such as thinking critically in the classroom, critical thinking and leadership, and critical thinking and moral development.

Why Affect is Crucial to Thinking

Presentation time and location:
July 31, Monday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre



YEHUDI O. WEBSTER is an expert in critical thinking and social problems. He provides workshops on infusing critical thinking into instruction, but is especially concerned with a critical thinking approach to multi-culturalism and the "classification" of people into ethnic and racial groups. He emphasizes the transferability of critical thinking abilities and traits across disciplines and the significance of reasoning in everyday communication and action. Dr. Webster teaches in the Sociology Department at CSU, Los Angeles, and is the author of *The Racialization of America*.

Riding the Third Wave in the Shoals of Everyday Life: A Personal Account

Presentation time and location:
July 31, Monday, 7:00 P.M. - 8:15 P.M.
Commencement Lawn



RALPH JOHNSON is one of the distinguished and respected leaders in the field of informal logic and critical thinking. He is the co-founder of *Informal Logic*, one of the oldest and best established journals in the field. He has many publications in the field and has been a regular presenter at the critical thinking conference for the last 15 years.

Intellectual Standards for Critical Thinking

Presentation time and location:
August 1, Tuesday, 9:00 A.M. - 10:15 A.M.
Evert Person Theatre

CONFERENCE THEME

Critical Thinking, the State of Education Today, and the Goals of the 15th International Conference

By Richard Paul

Understanding Substantive Critical Thinking Avoiding the Growing List of Counterfeits

It is now generally conceded that the art of thinking critically is a major missing link in education today, and that effective communication and problem-solving skills, as well as mastery of content, require critical thinking. It is also generally recognized that the ability to think critically becomes more and more important to success in life as the pace of change continues to accelerate and as complexity and interdependence continue to intensify. It is also generally conceded that some major changes in instruction will have to take place to shift the overarching emphasis of instruction from rote memorization to effective critical thinking (as the primary tool of learning).

It is not so clear to most educators how to affect the shift, nor what that shift essentially should effect in. All too often the phrase "critical thinking" is nothing more than a vague place-holder for any of a miscellany of changes and/or conceptions of change. All too often, the phrase is used so imprecisely that no one knows exactly what is being said nor how to assess its unclarified effect. Critical thinking is too important, the reforms it makes possible too essential, to leave the concept to helter-skelter intuitive use.

The 15th International Conference on Critical Thinking has two goals. The first is to lay out the history of work in the critical thinking field in such a way that interested persons can see where we are, how we have gotten there, and where we are going. Insight into the recent history of critical thinking sheds light on how one can best understand models that purport to foster critical thinking.

The second goal builds on the first, namely: to display some of the powerful and practical ways in which critical thinking can be brought into instruction, in the light of the latest research and practice. With perspective on the field, one can make an intelligent decision about what conceptions of critical thinking offer the greatest potential for long term reform of teaching and learning.

There are three "waves" of critical thinking research that can be identified since the early 70's. The three waves represent, in essence, different research agendas and point to different emphases in application. Each wave has its committed adherents, and each therefore represents an important choice in laying the foundation for future work in the field. The third wave can accomplish its goals only through a mastery of the most basic insights of the first two waves. Excellent work in the research agendas of all "waves" will play an important role in the 15th International Conference.

The first wave—based on a focus of the theory of logic, argumentation, and reasoning—has become a field unto itself, dominated by philosophers. First wave theorists tend to focus only on those instances of thinking in which persuasion and argumentation are explicit, and they tend to analyze them with a minimum of background context. They tend to view reasoning and logic in a relatively narrow and technical fashion, ignoring the broad family of related uses of the word 'logic' which one would find in any dictionary of the English Language. The notion of critical thinking as providing the tools for a broad analysis and assessment of thinking in a full range of the contexts in which thinking is at work in human feelings and behavior is not a core notion in the writings of most informal logicians. The result is that they do not make command of the logic of language and the logic of questions key components of critical thinking. If one views "logical structures" as omni-present in virtually all human thought, emotion, and behavior, the framework and writings of most informal logic theorists strikes one as generally narrow and specialized.

The second wave, lacking grounding in any one field of study, represents a loose conglomeration of interested persons, producing work of mixed quality, developed from many different standpoints. This diversity of standpoints gives to second wave research a scattered character. It includes some working on critical thinking from the standpoint of cognitive psychology, some from the standpoint of "critical pedagogy", some from the standpoint of feminism, a variety of others from the standpoint

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of particular disciplines (such as critical thinking in biology, business, or nursing), and yet others, from the standpoint of some element purportedly missing from first wave research agendas (such as emotion, intuition, imagination, creativity, etc.)

Taken collectively, therefore, second wave projects are more comprehensive than first wave projects, since second wave analysis looks at critical thinking typically outside the tradition of logic and rhetoric. Unfortunately, second wave work (lacking a shared intellectual tradition) is collectively far less integrated, less coherent, and often more "superficial". While exceptional work has been done during the second wave, the gain is too often vague comprehensiveness at the expense of depth and rigor.

The third wave represents a commitment to transcend the predominant weaknesses of the first two waves (rigor without comprehensiveness, on the one hand, and comprehensiveness without rigor, on the other). Third wave theorists are still relatively rare, though the work of a variety of intellectuals and scholars is relevant to third wave research agendas.

The principles and standards of the National Council for Excellence in Critical Thinking (NCECT) illustrate well an attempt to answer the need created by the limitations of the first two waves of critical thinking theory and practice and therefore represents a third wave phenomenon. The research projects based on these principles and standards are comprehensive in nature, going much beyond a narrow view of logic and critical thinking.

Still, the NCECT has found it difficult to "recruit" scholars and researchers with the breadth of background which third wave agendas call for. There are at present few scholars willing to internalize both first and second wave insights. The field is therefore at a crucial juncture, for if comprehensiveness and rigor are not combined in the work of the field, it is likely to split even further into a narrow technical field on the one hand, and a hodge-podge on the other. However, it is too early to tell whether and to what extent the need for both comprehensiveness and rigor will be answered by the full development of NCECT research agendas.

Unfortunately, third wave agendas cannot go forward without a general recognition of the importance of a deep and comprehensive theory that goes beyond the "narrowness" of most first wave research and the "superficiality" of much second wave research. It requires a willingness to think outside one's discipline or at least to think within one's discipline from the standpoint of a broader range of concerns. It requires, on the one hand, informal logicians who are willing not only to examine the problems posed by second wave theorists, but also to move to a broader conception of logic, one that recognizes that there is a logic to thinking within different disciplines, a logic to human emotions, a logic to human behavior, a logic, indeed, to every dimension of human life in which

thinking is the driving force. On the other hand, it calls for those with second wave concerns to take seriously the insights of first wave research and not simply to grudgingly (and abstractly) admit some value to it.

In other words, while first wave researchers need to recognize the importance of broadening the sweep of their concerns, second wave researchers need to recognize the need to build on the theoretical rigor of the first wave, to internalize, not ignore, the insights of the first wave, and to build on them. Only out of a real marriage of first and second wave concerns, only by a deep integration of insights, can the third wave fully develop. Those who would contribute significantly to the field of critical thinking research need to internalize the strengths of the first two waves.

The First Wave of Critical Thinking Research & Practice 1970-1982 Formal & Informal Logic Courses

First Wave Research Concerns:

- the design of individual courses in critical thinking or informal logic
- the critique of formal logic as a tool for the analysis and assessment of "real world" reasoning and argumentation
- the development of theories of fallacies in thought
- the development of theories of informal logic, reasoning, persuasion, rhetoric, and argumentation, etc.
- the exploration of philosophical issues raised by theories developed to account for informal logic, reasoning, and argumentation

In the first wave of critical thinking practice, the dominant paradigm came from philosophy and logic and the dominant educational manifestation was a formal or informal logic course. The idea was to establish a basic course in critical thinking which would provide entering freshmen with the foundational intellectual skills they need to be successful in college work. Almost from the beginning, however, there was a contradiction between the concerns and ideals that gave rise to the theory and practice and actual classroom practice. The ideals were broad and ambitious. The practice was narrow and of limited success.

For example, the State College and University System of California defined the goals of the critical thinking graduation requirement as follows:

Instruction in critical thinking is to be designed to achieve an understanding of the relationship of language to logic, which should lead to the ability to analyze, criticize, and advocate ideas, to reason

inductively and deductively, and to reach factual or judgmental conclusions based on sound inferences drawn from unambiguous statements of knowledge or belief. The minimal competence to be expected at the successful conclusion of instruction in critical thinking should be the ability to distinguish fact from judgment, belief from knowledge, and skills in elementary inductive and deductive processes, including an understanding of the formal and informal fallacies of language and thought.

On the one hand, we have a global comprehensive goal and on the other hand a fairly narrow and specialized way to meet that goal. Students do not in my experience achieve "an understanding of the relationship of language to logic" leading to "the ability to analyze, criticize, and advocate ideas"; they do not develop "the ability to distinguish fact from judgment" or "belief from knowledge" simply because they have been drilled in "elementary inductive and deductive processes" nor because they have been exposed to the theory of formal and informal fallacies. The misfit between goal and means is obvious to anyone who takes the goals in the above paragraph seriously. One three unit course in critical thinking can at best open the door to the beginning of critical thinking, provide an opening framework. It cannot result in the students having deep notions like "an understanding of the relationship of language to logic" or sweeping abilities like "the ability to analyze, criticize, and advocate ideas."

No one or two isolated courses can change the basic habits of thought of anyone. Furthermore, as a practical matter, many of the courses established to accomplish the objective fell far short of the best design. Often, for example, a course in formal logic was allowed to qualify as a course in critical thinking even though such courses generally are confined to teaching only the mechanical manipulation of symbols in accord with rules for such manipulation, a practice that does not result in changing habits of thought. Students who have taken such courses demonstrate little sense of how to transfer their "manipulative" abilities (with the symbols of formal logic) into practical tools in everyday thought.

Substituting informal logic courses for formal ones was one of the earliest shifts in emphasis as more and more instructors recognized that the formal logic approach had little transfer effect. The emphasis in the informal logic approach to the improvement of thinking was a giant step in the right direction. In place of highly abstract and contrived "arguments" in symbolic form, the students had to read and analyze arguments that came from editorials and everyday speech and debate.

Unfortunately, the informal logic textbooks were often rich in vocabulary and sophisticated distinctions but, unfortunately, poor in fostering deep internalization. The distinctions were generally well thought out, but there were far too many distinctions for a one semester course, and

furthermore, they were typically too narrow in their scope. Consequently, most students were rushed on to new distinctions and concepts before they had internalized the "old" ones. There was little emphasis on the construction—as against the critique—of reasoning. There was little done with the essential dispositions and values underlying critical thinking. The goals remained broad and profound; the means narrow and unrealistic.

Furthermore, the problem of transfer remained; it was still not clear to students how to transfer their analyses of bits and pieces of argumentation into learning what they were being taught in other courses, namely, sociology, psychology, biology, etc. So most students, once their critical thinking courses were finished, reverted to their established lower-order, survival skills—principally, rote memorization and cramming—to get by.

The problem of most first wave work is both theoretical and pedagogical. Theoretically, little if anything was done to work out a comprehensive theory of "logic" sufficient to make sense of the logic of biology, the logic of sociology, the logic of anthropology, geography, literature, the arts, etc. The concept of logic implicit in informal logic research is too narrow to provide the basis for transfer of critical thinking from, in fact, informal logic courses (no matter how well designed) to the broader curriculum, nor into the complex problems of everyday life and thought (except in a narrow range of such problems).

Pedagogically, little was done to work out the practical problems of restructuring instruction and learning overall. After all, how is one to teach anyone anything in such a way as to foster their taking command of their thinking, so that they develop not only intellectual skills but the basic dispositions and values that underlie critical thinking? How are academic subjects to be taught such that students leave school with the intellectual skills necessary to adapt to incessant and accelerating change and complexity? How are we to teach so that students explicitly recognize that the work of the future is the work of the mind, intellectual work that demands global skills of reasoning and intellectual self-discipline? These questions must be addressed.

The Second Wave of Critical Thinking Research & Practice 1980-1993 Critical Thinking Across the Curriculum Across the Grades

Second Wave Research Concerns:

- the development of a model for teaching critical thinking at some educational level or within some particular subject
- the development of a theory of critical thinking within a given domain or subject

- exploration of the relation of critical thinking to emotion
- exploration of the relation of critical thinking to the media
- exploration of the relation of critical thinking to problem-solving
- exploration of the relation of critical thinking to creative thinking
- exploration of the relation of critical thinking to sound business organization and management
- exploration of the relation of critical thinking to parenting
- exploration of the relation of critical thinking to political and ideological agendas
- research in cognitive psychology

The second wave of critical thinking research and practice began when increasing numbers of educators and administrators began to recognize that one course in critical thinking at the college level does not a critical thinker make. The problem for these reformers was transformed from "How should one design an isolated critical thinking course for college students?" to "How can critical thinking be integrated into instruction across all subjects and all grade levels?" From "What is informal logic, reasoning, and argumentation?" to "What is the role of emotion—or intuition or culture or gender or problem solving or creative thinking or political and ideological positioning—in thinking?"

Unfortunately, many second wave reformers were not at all clear on how to integrate critical thinking into instruction across the curriculum or across grade levels. The concept of informal logic which had been developed in and for critical thinking and informal logic courses did not translate readily into the "logic" of the disciplines, let alone into the "logic" of everyday life. For though informal logicians were often clear and rigorous in the development of theory, the theory they developed was narrowly conceived. In other words, most informal logicians have never seriously considered the challenge of developing a theory of critical thinking adequate for the teaching of all subjects across all grade levels. Informal logic was not conceived as applicable to virtually all human contexts. The theory of the informal logician remained the theory of a specialist thinking and writing for other specialists (about a subject of relatively narrow scope). It was not the thinking of a comprehensive educational thinker writing for educational reformers. It was not the thinking of a comprehensive mind considering broad and comprehensive problems.

From a third wave perspective, an adequate account of informal logic and critical thinking must shed significant light on the logic of everyday thinking as well as on the logic of the disciplines (if it is to attract the attention of educational reformers and those concerned with the application of critical thinking to everyday life). Problems in business, parenting, everyday relationships, politics, civics, and such, cannot easily be

addressed within the framework of current theories of logic. And since critical thinking makes sense whenever and wherever thinking might go awry, the logic of critical thinking must be broad and encompassing, not narrow and specialized.

Unfortunately, second wave reformers did not set out to broaden the basis of informal logic and reasoning. Rather, some second wave reformers mistakenly rejected "logic" rather than worked to expand it. To some logic constrained thinking, limited creativity, discounted intuition. Others seemed simply to ignore logic and focused instead on any of the various "discoveries" and popular theories of thinking. In fact, the field of "thinking" became, and still is, a veritable hodge-podge, some work bordering on charlatanism. Quick-fixes for teaching and understanding thinking became commonplace. Quick-fixes ruled, and still rule, reform efforts at all educational levels.

Otherwise respectable educational organizations sponsored approaches to thinking that were simplistic and glitzy. Big money began to move into the field, since there was much money to be made by quick-fix programs that implied that thinking could be quickly and painlessly upgraded by educators, even by those who had never themselves studied thinking and thought poorly themselves. Instant success was promised. The phenomena of pseudo-critical thinking became common.

States set up new testing strategies that were claimed to be higher order. California mounted a very expensive new testing system in reading and writing which was touted to be focused on critical thinking—when it in fact was simply subjective and poorly designed. The result was a political battle between the "liberals" who liked the test and "conservatives" who thought it advanced a liberal agenda. Eventually the governor vetoed the test.

Other second wave researchers—principally cognitive psychologists—have focused concern on the manner in which experts and novices think. They have developed various theories of "thinking" and "intelligence," however, this research and these theories often lack a philosophical foundation, regularly ignore the problem of the intellectual assessment of thinking, and, like first wave informal logic research, lack a clear connection to the comprehensive problem of teaching subject matter in a variety of fields. The "practical" suggestions developed were more often like a bag of tricks than a coherent pedagogy. The problem of long-term infusion was not significantly addressed.

Though second wave did not explicitly call for an abandonment of "logic" and additional attention was directed at explicating various subject areas in the light of some theory of critical thinking, there was little effort to marry the insights of the first wave with the needs of the second. Little was done, for example, to explicate the logic of history, the logic of math, bio-logic, socio-logic, psycho-logic, the logic implicit in disciplined

ways of thinking. After all, what does it mean to think historically, to think geographically, to think mathematically, to think philosophically, to think aesthetically, etc.? These are pressing second wave questions. However, since most subject matter specialists have not studied informal or formal logic, they are not well-positioned to integrate insights from logic into their concept of their field.

In short, the variety of attempts to reconstruct (with little background in informal logic or theory of critical thinking) the role of critical thinking within a domain, has tended to result in disjointed and sometimes superficial results. The upshot is often a hodge-podge of ideas, often superficial, usually incomplete, and in some cases, arbitrary. The phenomenon of instant-expert in critical thinking becomes commonplace. Those who decide to write an article on critical thinking become in their minds an expert overnight. Programs are rushed into press to capitalize on the emerging market for critical thinking materials.

The Third Wave of Critical Thinking Research & Practice 1990-Present Depth & Comprehensiveness in Theory & Practice

Third Wave Research Concerns:

- integrating the insights of first and second wave research
- developing a theory of critical thinking that is rigorous and comprehensive
- explicating intellectual standards that have general application both within and beyond academic environments
- accounting for the appropriate role of emotion and values in thinking
- understanding the leading role of thinking in the shaping of emotion and behavior
- integrating the empirical work of cognitive psychology into critical thinking theory
- establishing common denominator principles and standards within the field of critical thinking research and practice
- developing effective assessment tools
- identifying and critiquing pseudo-critical thinking models and programs

The third wave of critical thinking research and practice is only just now beginning to emerge. As yet there are few who see clearly the enormity of the task which the field faces. The success of the third wave can be achieved only with a growing recognition of the strengths and weaknesses of the first two waves. First wave research needs to bring its rigor and depth into a broader complex of concerns. Second wave research

CONFERENCE HISTORY

THE 1995 CONFERENCE on Critical Thinking and Educational Reform reflects the development implicit in the fourteen annual conferences which have 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 has been a comprehensive and deep one supported by intellectual standards and an emphasis on self-assessment, while remaining linked to broadly-based ethical concerns.

We began, in 1981, 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, and Mary Anne Warren were among those who set us on our way. Beginning with those thinkers capable of the most profound and self-critical thought was an excellent foundation on which to build. However, we quickly saw that if progress were 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.

Subsequent conferences have expanded progressively, growing to include more emphasis on students' 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 which are offered by our sister organization, The Foundation for Critical Thinking. An exhibit of the resources of the Foundation will be located in

the Student Union. This year, over 200 presenters will join us at Sonoma State University for lively discussions, intense intellectual growth, and opportunities to see how far-reaching the growth in the critical thinking movement has become. The global pressures we face, given the accelerating change of our world and the increasing complexity of our problems, supports our earlier perceptions: critical thinking is an imperative for all, not a luxury for the few. More and more national leaders in every field are sounding the echo. The question is how we can help educators and business people to respond effectively.

Within the education family, there have been two central problems which 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. Many K-12 teachers, in turn, have little sympathy or patience for any theory that cannot immediately be so translated. The tension between the need for a theoretical foundation, a critical thinking foundation for critical thinking if you will, and the urgency for teachers to have in their hands tools to deal with the severity of student apathy and poor thinking is tempering for both K-12 and college instructors. The conference is an opportunity to join together and take a fairminded view toward the need for both theory and practice.

It is important to recognize that we are still very much in the beginning stages of educational reform based on the goal of creating critical thinking classrooms and workplaces. The challenge is with us to communicate the broadest, most comprehensive vision of critical thinking to teachers, to business people, and to parents. We have reason to think that the need for an annual conference in critical thinking will continue indefinitely and expand to serve more and more astute individuals who come to see the larger picture. Inertia is a powerful force. 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 a simplistic explanation of life wherein opposing groups are identified as essentially "good" or "evil," — all argue for the pressing need for fairminded critical thinking abilities and traits, underpinned with intellectual standards so necessary for self-assessment of thinking and thus, for continuous improvement.

We assume 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 various educational levels.

Those who teach the early grades need to understand and appreciate the superstructure that is to be built upon the foundations they help to lay. Those who teach the middle grades need to understand and appreciate what has come before and what is to follow. And those who teach the later grades 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 abilities. Thus we hope 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 numerous ways: 1) by classifying all presentations with a label that indicates possible special interest concerns (see audience code chart on page 21), 2) by listing sessions according to selected audience codes (see page 49), and 3) by setting up a meeting time on Tuesday evening (8:00 P.M.) for groups to organize themselves into networks (see the section entitled Special Interest Groups, page 47, for more information on these special interest meetings).

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 in order to facilitate exchanges which are rarely possible in question and answer periods. We welcome you to this feast for the mind!

SPECIAL EVENTS

EXHIBITORS

The Foundation for Critical Thinking

In the Dining Commons, Sunday through Wednesday

The Foundation for Critical Thinking, sister organization of the Center for Critical Thinking, will have an extensive exhibit of resources available for participants during the 15th International Conference. It will be located in the Dining Commons. On display will be books, video tapes, micro-publications, tee-shirts, sweat shirts, and book totes

Information on the Regional Workshops and membership information for the National Council for Excellence in Critical Thinking will also be available at the Resources display.

Publishers

In the Dining Commons, Sunday through Wednesday

Various publishers will display educational and critical thinking products.

Sonoma State Bookstore

At Far End of Central Quad Area (past Commons)
Sunday through Wednesday

Each year, the bookstore orders books focusing on Critical Thinking. These books either appear on the Center's bibliography or have been recommended by presenters. Many books written by this year's presenters will be available at the bookstore.

MINI-SESSIONS

A new feature of this year's conference will be the mini-sessions which offer a potpourri of ideas for the classroom. In these forty-minute mini-sessions, specific classroom tested ideas and strategies will be presented in an informal setting conducive to interaction between the presenters and participants.

EVENING THINKFESTS

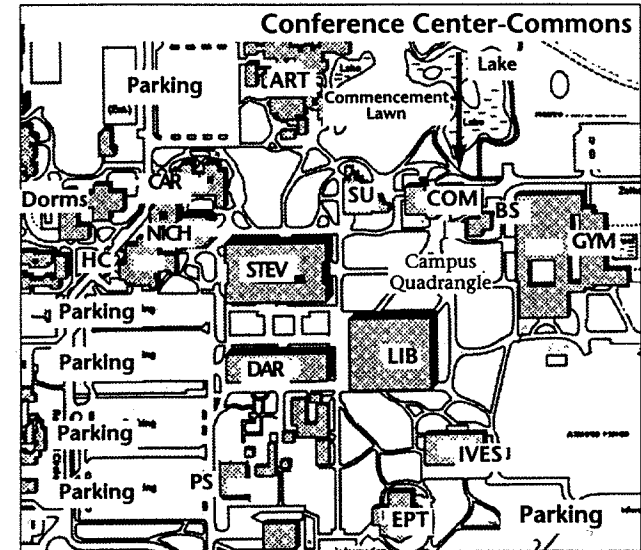
The evening Thinkfests are designed as an integral part of the conference. They provide an opportunity for presenters and participants to interact and explore multiple possibilities and lines of thought. These interactions are essential for thinking to develop. Please come and share your thinking with others.

HOW TO FIND THE SESSIONS YOU WANT TO ATTEND

DUE TO THE large number of sessions, we have designed the Conference Schedule with a number of special sections, each of which lists the sessions in a unique way: chronologically, by presenter name, and some sessions listed by selected audience codes (see page 49). The following recommendations may make planning your conference attendance easier.

- Each session has audience codes which indicate areas addressed. Most of these codes are assigned by the presenter. The key to these codes is located on page 21, as well as on the last page of the program.
- The conference schedule section is best used to view the schedule as a whole. It lists the sessions chronologically, giving the presenter name(s), session title, location, and audience codes. The abstracts can be located by referencing the presenter's name.
- The abstracts are listed alphabetically by presenter's name. If there are some speakers you especially want to see, you can find out what talks they will give and when.

- There is also a listing of some sessions by selected audience codes. This section is not intended to give a complete list of every session addressing that category, but rather to highlight some that have especially strong emphasis in those areas. Again, the abstracts can be found by referencing the presenter's name.
- If you're especially interested in hands-on sessions, check the abstract. Many abstracts describe the nature of the session, as well as more detail about the content. If the abstract is unclear, arrive early and ask the presenter if the session is hands-on.
- For your convenience, we've included a planning guide on page 22. This worksheet can be used to list the sessions you plan to attend, as well as back up options.
- Some sessions will inevitably attract many attendees. Because this is difficult to predict, you should always have one or two back-up sessions selected just in case your first and second selections are already filled.
- Mark all changes from the Special Announcements and Changes Sheet (included in the conference handouts picked up at registration) in your schedule.



AUDIENCE CODES

ELEM	.....	elementary school
MID/HIGH	.....	middle/high school
K-12	.....	kindergarten-12th grade
COLL	.....	post-secondary education
ADV	.....	advanced session
ARTS	.....	the Arts
BEG	.....	beginners in critical thinking
BUS	.....	business
COMP AID	.....	computer assisted instruction
ENV	.....	environment
FEM	.....	feminism
GEN	.....	general
HEALTH	.....	health sciences
H CON	.....	human conflicts
INF LOGIC	.....	informal logic
LANG	.....	language arts/English
MATH/SCI	.....	math/science
MEDIA	.....	media, media literacy
MUL-CULT	.....	multi-culturalism
NURS	.....	nursing
PEACE	.....	peace studies
POL	.....	politics, political science
PSYCH	.....	psychology
SOC STUD	.....	social studies
SOCIOL	.....	sociology
STAFF DEV	.....	staff development
TACTIC/STRAT	.....	teaching tactics & strategies
TEST	.....	testing and assessment

INDIVIDUAL PLANNING GUIDE

	SUNDAY	MONDAY
9:00 AM to 10:15 AM	Keynote by Richard Paul (Evert Person Theater)	Keynote by Linda Elder (Evert Person Theater)
10:30 AM to 12:00 PM		
12:00 PM to 1:30 PM	Lunch available at BBQ (outside Dining Commons), in Pub (upstairs Student Union) or at Commons Dining Facility (inside Dining Commons). For participants staying in On-campus housing the Residence Dining Hall will be open from 12:00 P.M.-1:30 P.M.	
1:30 PM to 3:00 PM		
3:15 PM to 4:45 PM		
5:00 PM		
6:00 PM		
7:00 PM 8:30 PM	Keynote by Gerald Nosich (Evert Person Theater)	Keynote by Yehudi Webster (Commencement Lawn)
9:00 PM 10:00 PM 11:00 PM	ThinkFest, see page 18, (Dining Commons)	ThinkFest, see page 18, (Dining Commons)

	TUESDAY	WEDNESDAY
9:00 AM to 10:15 AM	Keynote by Ralph Johnson (Evert Person Theater)	Sessions will start at 8:45 A.M.
10:30 AM to 12:00 PM		
12:00 PM to 1:30 PM	Lunch available at BBQ (outside Dining Commons), in Pub (upstairs Student Union) or at Commons Dining Facility (inside Dining Commons). For participants staying in On-campus housing the Residence Dining Hall will be open from 12:00 P.M.-1:30 P.M.	
1:30 PM to 3:00 PM		Last Session Wrap-up (Warren Auditorium)
3:15 PM to 4:45 PM		
5:00 PM 6:00 PM 7:00 PM		
8:00 PM 9:00 PM 10:00 PM 11:00 PM	ThinkFest, including Special Interest Groups, see page 47, (Dining Commons)	

CONFERENCE SCHEDULE

SUNDAY

9:00 AM - 10:15 AM

EPT

RICHARD PAUL COMMENCEMENT AREA
Welcoming Address: The History of the Critical Thinking Movement. Three Waves of Research and Practice.

10:30 AM - 12:00 PM

- M. NEIL BROWNE, STUART M. KEELEY WARREN
Getting Started as a Teacher of Critical Thinking: Classroom Behavior and Assignments TACTIC/STRAT, COLL, BEG, SOC STUD
- YEHUDI O. WEBSTER DAR 108
Are There White and Black People? Reasoning About Racial Classification GEN, SOC STUD, MUL-CULT
- T. EDWARD DAMER STEV 1002
How to Distinguish "Good" Arguments from "Bad" Ones INF LOGIC, GEN
- HARRY T. MAYO, PAUL DUAX, GAIL HUGHES, VIRGINIA O'KEEFE, JOAN RYKIEL, MICHAEL MONK SU 100
What are We Doing With Critical Thinking in the Community College System and Where are We Headed With It in the Classroom? A Panel Discussion Moderated by Harry Mayo STAFF DEV, TACTIC/STRAT, BEG, COLL
- JEFFERY R.W. DONLEY STEV 3008
Surfing the Third Wave: Integrating Critical Thinking and Interdisciplinary Studies for the 21st Century COLL, STAFF DEV, MUL-CULT, ADV

SUNDAY

10:30 AM - 12:00 PM

Continued

- TISH ALLEN, LYNN CHONG, NED MCGUIRE, FREDERIC TÖRZS, DEANNA YAMEEN STEV 2049
Collaboration within One Critical Thinking Department COLL, TEST
- MARIA DA VENZA TILLMANN STEV 2006
Philosophical Counseling: Philosophy From the Bottom Up PHIL, TACTIC/STRAT, H CON
- LESLIE K. HICKCOX ART 108
Developing Problem-Solving Skills through Kolb's Experiential Learning Cycle COLL, TACTIC/STRAT, BEG, SCI
- NANCY KUBASEK, ANDREA GIAMPETRO-MEYER STEV 3072
Introducing Critical Thinking into the Legal Environment of Business Classroom BUS, COLL
- MARGARET ANDERSON, VICTORIA ALLEN IVES 35
Socratic Seminars TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG
- CLAUDE GRATTON DAR 112
Critical Thinking's Contribution To Psychological Health TACTIC/STRAT, INF LOGIC, COLL, MID/HIGH
- WILLIAM H. MAURER, PATRICIA A. MAURER IVES 34
Moving From "I Think I Can!" to "I Can Think!": Changing Attitudes and Actions of Elementary Grade Teachers ELEM, BEG, STAFF DEV, TACTIC/STRAT
- VICKY GARCIA, NATASHA HAUGNES STEV 3049
Training ESL and Native English Speakers for Critical Peer Reading LANG, TACTIC/STRAT, COLL
- RON BOHANNON DAR 139
Dialectic/Pragmatic Thinking: A Study in Conceptual Contrasts PHIL, ADV, LANG
- NORMAN BETZ DAR 122
The Myers-Briggs and the Process Toward Critical Thinking COLL, TACTIC/STRAT, LANG, TEST
- J.E. (PETER) PETERS STEV 3046
The Student Lecture Review: Critical Feedback on Standards and Expectations COLL, TACTIC/STRAT, MID/HIGH
- LEE BROWN STEV 3040
Materials, Methods, and Strategies for Teaching Critical Thinking to the Educationally Disadvantaged-to Students at Risk MID/HIGH, COLL, MUL-CULT, TACTIC/STRAT, BEG

MINI-SESSIONS

IVES 119

10:30 AM - 11:10 AM

G. DOUGLAS MEYERS
Achieving Poetic Consciousness: Found Poetry/Poetry Found LANG, INF LOGIC, K-12

JEFF REED
Using Assessment Rubrics for Critical Thinking MID/HIGH, COLL

11:20 AM - 12:00 PM

EDWARD L. MCGUIRE
Advantages of a Technical Assistant for a Critical Thinking Program MID/HIGH, COLL, TEST, TACTIC/STRAT

DAVID ZWICKER
SAVVY & SAFE: A Critical Thinking Approach to Self-Defense STAFF DEV, BEG, PSYCH, HEALTH

12:00 PM - 1:30 PM

LUNCH

Available at BBQ (outside Dining Commons), in Pub (upstairs Student Union) or at the Commons Dining Facility (inside Dining Commons).

1:30 PM - 3:15 PM

M. NEIL BROWNE, STUART M. KEELEY WARREN
Lessons Learned from Two Decades of Teaching Critical Thinking TACTIC/STRAT, COLL, BEG, SOC STUD

T. EDWARD DAMER STEV 1002
How to Construct Effective Moral Arguments MID/HIGH, COLL, BEG, INF LOGIC

RICHARD PAUL SU 100
Beyond Argumentation: The Use of Reason in Everyday Life GEN, BEG

JAN WILLIAMSON STEV 3008
Alternative Assessment: Enhancing and Monitoring Student Thinking TEST, GEN

HARRIET CHAMBERLAIN, PH.D. STEV 2049
Thinking For Your Life COLL, ADV

NORMAN J. UNRAU STEV 2006
Toward a New Wave Conception of Critical Thinking: A Process, Dispositions, and an Outlook in a Context COLL, MID/HIGH, TACTIC/STRAT, STAFF DEV

SUNDAY

1:30 PM - 3:15 PM

Continued

KENNETH ANDERSON ART 108
Critical Thinking Made Simple BEG, COLL, MID/HIGH, INF LOGIC

MAURICE A. FINOCCHIARO STEV 3072
Philosophy and Critical Thinking in Socrates, Galileo, and Marx ADV, INF LOGIC, POL, H CON

ELEANOR VANETZIAN, BARBARA CORRIGAN IVES 34
"Prep" for Class and Class Activity: Key to Critical Thinking HEALTH, NURS, TACTIC/STRAT

DIXON WRAGG DAR 112
Nonrational Determinants of Thinking, and Implications for Critical Thinking Pedagogy PSYCH, SOCIOL, MUL-CULT, BEG

MARGARET ANDERSON, VICTORIA ALLEN IVES 35
Socratic Seminars TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG

CHERRIE L. KASSEM STEV 3049
Critical Thinking and Early Childhood Education: Design for a Master's Level Course on Critical Thinking and Creativity in the Classroom ELEM, COLL, TACTIC/STRAT

JACKIE A. GIULIANO DAR 139
The Environmental Studies Curriculum as a Vehicle for the Introduction of Feminist Philosophies and Spirituality into the Classroom ENV, FEM, SOC STUD, TACTIC/STRAT

WEBSTER E. COTTON DAR 122
Thinking, Education and the Human Project: The Contrasting Perspectives of Socrates, Dewey and Heidegger COLL, PSYCH, TACTIC/STRAT, SOCIOL

ERIC E. MILLER STEV 3046
Advertising MID/HIGH, BEG, LANG

DOUG BRENNER, TOM GEU STEV 3040
Critical Thinking and the Rules of Evidence in Law: A Historical Perspective and Pedagogical Implications COLL, ADV, TACTIC/STRAT

MINI-SESSIONS

IVES 119

1:30 PM - 2:10 PM

JARED HAYNES
(Mini-Session) Commenting on Student Writing HIGH, COLL

2:20 PM – 3:00 PM

RICHARD SANZENBACHER
(Mini-Session) Working with Imagery from a Semiotic Perspective TACTIC/STRAT, LANG, MID/HIGH, COLL

3:15 PM – 4:45 PM

M. NEIL BROWNE WARREN

Potential Trouble Spots that Bedevil Critical Thinking Classrooms(Participatory Workshop) TACTIC/STRAT, COLL, MID/HIGH

YEHUDI O. WEBSTER DAR 108

Multi-Culturalism and Critical Thinking: Compatibility or Competition? GEN, MUL-CULT

T. EDWARD DAMER STEV 1002

How to Resolve Disagreements on Controversial Issues COLL, MID/HIGH, H CON, INF LOGIC

WILLIAM A. DORMAN, DONALD LAZERE, JONAH RASKIN, NORMON SOLOMON, MARK LOWENTHAL SU 100

Mass Media and the American Conversation: Perspectives on Power and Culture MID/HIGH, COLL, MEDIA

KATHLEEN HERSCHELMANN STEV 3008

Critical Thinking in International Trade—Using a Format Adaptable to Other Disciplines HIGH, COLL, BUS, TACTIC/STRAT

DENNIS MATTHIES STEV 2006

Working Smarter Through Precision Questioning I GEN, BEG, BUS, TACTIC/STRAT

VIRGINIA O'KEEFE ART 108

Teaching for Discovery: The Questioning Class MID/HIGH, COLL, LANG

CONNIE MISSIMER STEV 3072

The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence ADV, MATH/SCI, FEM, INF LOGIC

DONALD JOHNS DAR 112

Literature, Empathy, and Critical Thinking TACTIC/STRAT, COLL, MID/HIGH, MUL-CULT

JEANETTE K. MUSER, JULIA E. NORATO, LAWRENCE E. SWESEY IVES 34

Applying and Teaching Critical Thinking HIGH, MATH/SCI, TEST, TACTIC/STRAT

TRISH TAYLOR-JONES IVES 35

A Critical Thinking Road Map to Problem Solving: Avoiding the Pitfalls BUS, STAFF DEV

SUNDAY

3:15 PM – 4:45 PM

Continued

EDNA MAYE LOVELESS STEV 3049

Fuzzy Thinking Produces Fuzzy Writing: An Alert for Precise Language COLL, LANG, TACTIC/STRAT

JACKIE A. GIULIANO DAR 139

Challenging our Perception of our World: Merging Ecology and Psychology into "Ecopsychology" PSYCH, ENV, MUL-CULT, SOCIO

MERLE KATAOKA-YAHIRO, KATHERINE ABRIAM-YAGO, ED.D. DAR 122

The Use of Mentoring and Role-Modeling with Nursing Students: An Application of the Critical Thinking Model for Nursing Judgment Nurs

LARRY LITECKY STEV 3046

Active Learning and Improving the Quality of Thinking TACTIC/STRAT, COLL, STAFF DEV

THOMAS HART, REBECCA SKAGGS STEV 3040

Integrating Critical Thinking at a Christian College COLL, BEG, LANG, MUL-CULT

MINI-SESSIONS

IVES 119

3:15 PM – 3:55 PM

JANE DAVIS-SEEVER

(Mini-Session) Portfolios for Critical Thinking ELEM

4:05 PM – 4:45 PM

H. OGDEN MORSE

(Mini-Session) The Dialectical Notebook MID/HIGH, SOC STUD

7:00 PM – 8:15 PM

GERALD NOSICH EPT

Keynote: On the Need for Comprehensiveness in Critical Thinking

CONFERENCE SCHEDULE

8:15 PM – 11:00 PM

THINKFEST DINING COMMONS
Please see page 18 for details.

MONDAY

9:00 AM – 10:15 AM

LINDA ELDER EPT
Keynote: Why Affect is Crucial to Thinking

10:30 AM – 12:00 PM

BEN E. JOHNSON WARREN
No Longer Preaching to the Choir: "SARASOTA THINKS," the Nation's First, Week-long, County-wide Thinking Festival Designed for the Public STAFF DEV, BEG, ADV

DONALD LAZERE DAR 108
Reading Rush Limbaugh Critically COLL, MID/HIGH, MEDIA, POL

ROBERT D. ALLEN, DAVID J. STROUP STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics MATH/SCI, TACTIC/STRAT, HEALTH, NURS

RICHARD PAUL SU 100
Socratic Questioning: A Series of Three Demonstration Sessions. First Demonstration (Asking Questions That Take Thinking Apart) TACTIC/STRAT, BEG

STUART M. KEELEY CAR 68
Coping with Student Resistance to Critical Thinking TACTIC/STRAT, COLL, BEG, SOC STUD

ROSEMARY KELLER STEV 3008
Development and Implementation of a Hospital Based Critical Thinking Program NURS, HEALTH, STAFF DEV, TACTIC/STRAT

DENNIS MATTHIES STEV 2049
Working Smarter Through Precision Questioning II GEN, BEG, BUS, TACTIC/STRAT

T. FRANK SAUNDERS, AMY SCHLESSMAN STEV 2006
Double Think: Restructuring Content, Context, and Purposes for 21st Century Thinking STAFF DEV, GEN

CONFERENCE SCHEDULE

MONDAY

10:30 AM – 12:00 PM

Continued

DONALD HATCHER ART 108
Three Theories of Rationality: Implications for Educational Practice TEST, TACTIC/STRAT, INF LOGIC, COLL

SUE Y. LUCKEY STEV 3072
Creative and Critical Thinking Strategies for Participating in a Global Economy MUL-CULT, BUS, MID/HIGH, COLL

GIUSEPPE AMEDEO GALVAN IVES 35
Logic and Contents of the Common Sense (*Sensus Communis*) as a Solution of the Problems of a Multi-Cultural Society COLL, TACTIC/STRAT, PSYCH, INF LOGIC

TOBY KLINGER DAR 112
Integrating Critical Thinking into the Teaching of Introduction to Psychology COLL, BEG, INF LOGIC, PSYCH, TACTIC/STRAT

SHARON SCHWARZE, HARVEY LAPE IVES 34
The Third Wave is the Oldest Wave: The Socratic Model COLL, TACTIC/STRAT, INF LOGIC

HERMAN HALUZA STEV 3049
Literature and the Writing Curriculum COLL, ARTS, TACTIC/STRAT

JOAN D. RYKIEL DAR 139
The Community College Experience: Is There an Effect on Critical Thinking and Moral Reasoning? PSYCH, COLL, TEST, TACTIC/STRAT

DAN BURRITT DAR 122
Creating Math Islands with the Thinking Skills Format TACTIC/STRAT, K-12, BEG, MATH

CHRIS KUCHURIS STEV 3046
Dilemma or Opportunity? TACTIC/STRAT, SOCIOL, MUL-CULT, H CON

DOUG BRENNER STEV 3040
Developing Video Literacy/Critical Thinking Skills MEDIA, COLL, BEG, HIGH

RICHARD B. LEWIS STEV 2065
Critical Thinking: Classroom Procedures, Format, Grading, etc. Part 1 COLL, TACTIC/STRAT, MATH

GEORGE COLLISON STEV 1040
Empowering Teachers to Teach Using Inquiry in Algebra and Pre-Algebra MATH, MID/HIGH, COLL

CONFERENCE SCHEDULE

MINI-SESSIONS

IVES 119

10:30 AM – 11:10 AM

JARED HAYNES
(Mini-Session) The Exploratory Paper: Prelude to
Argument *COLL*

JEANETTE K. MUSER, JULIA E. NORATO, LAWRENCE E. SWESEY
(Mini-Session) Teaching Critical Thinking *MID/HIGH*

11:20 AM – 12:00 PM

T. EDWARD DAMER
(Mini-Session) Concept of Rebuttal *INF LOGIC, GEN*

KATHLEEN HERSCHELMANN
(Mini-Session) Writing Modules Using Critical Thinking
as a Base *MID/HIGH, COLL*

12:00 PM – 1:30 PM

LUNCH

Available at BBQ (outside Dining Commons), in Pub
(upstairs Student Union) or at the Commons Dining Facility
(inside Dining Commons).

1:30 PM – 3:00 PM

GERALD NOSICH WARREN
An Introduction To Critical Thinking: What Is It? Why
Should I Teach For It? How Can I Teach For It? *GEN, BEG*

YEHUDI O. WEBSTER DAR 108
Are There White and Black People? Reasoning About
Racial Classification *GEN, SOC STUD, MUL-CULT*

GEDEON J. ROSSOUW, J. COLEY LAMPRECHT STEV 1002
The IIT Approach to the Development of Thinking and
its Multi-Cultural Application in South Africa *TACTIC/STRAT,
COLL, STAFF DEV, MUL-CULT*

RICHARD PAUL SU 100
Socratic Questioning (Second Demonstration Session):
Asking Questions That Assess Thinking Based on
Intellectual Standards *TACTIC/STRAT, BEG*

CONFERENCE SCHEDULE

MONDAY

1:30 PM – 3:00 PM

Continued

LINDA ELDER CAR 68
Understanding Our Egocentric Nature: Is Yours
Dominant or Submissive? *GEN*

WILLIAM A. DORMAN, RALPH JOHNSON STEV 3008
Mass Media and Critical Thinking: Part I *COLL, MEDIA*

DIXON WRAGG STEV 2049
Reasoning with Irrational Persons *PSYCH, H CON, BEG*

FRANK E. COLBOURN ART 108
How We Put the Background of Epistemic Application
Into the Foreground of Critical Thinking *COLL, ADV, PSYCH,
TACTIC/STRAT*

BRENDA CHEREDNICHENKO IVES 34
The Geographical Location of the Teaching of Thinking
Skills Programs *ELEM, SOCIOLOG*

CONNIE MISSIMER IVES 35
How to Teach Critical Thinking in a Way That is Not
Culturally Biased Without Sacrificing High Evidentiary
Standards *MID/HIGH, COLL, MUL-CULT*

WILLIAM B. STREAN, RUSS LINDGREN DAR 112
Critical Thinking About Sport/ Critical Thinking Within
Sport *GEN, PSYCH, BEG, MEDIA, H CON*

LESLIE S. MCKILLOP, DAVID W. MCKILLOP, DAVID WHITE STEV 3049
Not Waving but Drowning: Caught in the Second Wave
Undertow *COLL, MID/HIGH, PSYCH, TACTIC/STRAT*

JOE M. STEELE DAR 139
Tasks for Critical Thinking: When is a Problem just an
Exercise? *TACTIC/STRAT, TEST, COLL, STAFF DEV*

JIM POLLARD DAR 122
Transference—Making the Classroom Part of Life
TACTIC/STRAT, GEN

DON FAWKES STEV 3046
How to Teach Students to Distinguish Premises and
Conclusions *TACTIC/STRAT, BEG, ADV, INF LOGIC*

ROBERT G. BUCKENMEYER STEV 3040
Traditional Critical Thinking and the American English
Language and "Culture" *COLL, STAFF DEV, LANG, INF LOGIC*

RICHARD B. LEWIS STEV 2065
Critical Thinking: Classroom Procedures, Format,
Grading, etc. Part 2 *COLL, TACTIC/STRAT, MATH*

CONFERENCE SCHEDULE

MINI-SESSIONS

IVES 119

1:30 PM – 2:10 PM

JAN WILLIAMSON
(Mini-Session) Writing and Critical Thinking: Action
 Research at One College *COLL*

2:20 PM – 3:00 PM

JEFFERY, R.W. DONLEY
(Mini-Session) The Hermeneutical Worksheet *COLL*

3:15 PM – 4:45 PM

BEN E. JOHNSON WARREN
 How We Did It: Sarasota's Unique Plan for Motivating
 and Training 2000 Thinking Skills Teachers *K-12, STAFF DEV,*
BEG, ADV

YEHUDI O. WEBSTER DAR 108
 On Becoming a (Better?) Critical Thinking Instructor:
 The Elements of Thought *GEN*

RICHARD POPE STEV 1002
 Total Quality Management Comes to the Thinking
 Classroom *K-12, STAFF DEV, LANG, TACTIC/STRAT*

RICHARD PAUL SU 100
 Socratic Questioning (Third Demonstration Session):
 Asking Questions Based on Systems and Domains
TACTIC/STRAT, BEG

NANCY CARTER McDONALD CAR 68
 A Critical Thinking Model for the College Classroom
COLL, TACTIC/STRAT, BEG, NURS

WILLIAM A. DORMAN, RALPH JOHNSON STEV 3008
 Mass Media and Critical Thinking: Part II *COLL, MEDIA*

DIXON WRAGG STEV 2049
 Critical Thinking and Social Responsibility *H CON, SOCIOL,*
BEG

SUSAN MCGURY, KATHLEEN TAYLOR, JANIS BRADLEY ... STEV 2006
 Thinking and Transformation: Models of Support for
 Emerging Critical Thinkers *COLL, GEN, FEM, LANG, TACTIC/STRAT*

CONFERENCE SCHEDULE

MONDAY

3:15 PM – 4:45 PM

Continued

JANE WILLSSEN LORAND ART 108
 Self-Assessment at the High School and College Level:
 Peer Editing, Group and Individual Assessment in
 Speaking and Writing *MID/HIGH, COLL, STAFF DEV*

DEANNA L. YAMEEN, MARITA PRATER STEV 3072
 Interdependent (Critical) Thinking: A Bridge Between
 Education and the Workplace *COLL, STAFF DEV, ADV, NURS*

RON BOHANNON IVES 34
 A Critical Study of H.L. Mencken's Dialectic Irony in *In*
Defense of Women *BEG, ADV, LANG, TACTIC/STRAT*

JACKIE A. GIULIANO IVES 35
 The Development of Social Responsibility and
 Environmental Awareness Through Techniques in
 Critical Teaching - A Community Involvement Approach
TACTIC/STRAT, ENV, POL, BEG

ANTHONY OLUWATOYIN DAR 112
 Questions, Eccentrics and Critical Thinking *TEST, GEN*

LINDA Q. SMITH STEV 3049
 Chess: A Thinking Machine That Works *GEN, BEG,*
TACTIC/STRAT, TEST

ROSE AGUILAR WELCH, KATHLEEN F. O'CONNOR, MARY J. CRUISE .
 DAR 139
 A Study of Critical Thinking in Nursing Education *NURS,*
COLL, BEG, TACTIC/STRAT

KRISTAN CAVINA DAR 122
 Teaching Critical Thinking in the Writing Class *LANG,*
TACTIC/STRAT, COLL

WILLIAM L. HOOPER STEV 3046
 Thinking Critically in the Fine Arts *COLL, ARTS, TACTIC/STRAT*

LYNN R. CHONG STEV 3040
 How Do You Know Your Evidence Is True? *HIGH, COLL,*
TACTIC/STRAT

WILLIAM J. STEPIEN, SHELAGH A. GALLAGHER STEV 2065
 Thinking Is More Than "Bumper Sticker" Reasoning
TACTIC/STRAT, BEG, K-12

GEORGE COLLISON STEV 1040
 Linking Understanding in Math and Science Through
 Argument and Discussion in the Language of Functions
 and Graphs *MATH/SCI, MID/HIGH, COLL, COMP AID*

CONFERENCE SCHEDULE

MINI-SESSIONS

IVES 119

3:15 PM – 3:55 PM

JON PAPPAS
(Mini-Session) The Oral Test for the Mastery of Basic Concepts *TACTIC/STRAT, TEST, BEG*

4:05 PM – 4:45 PM

T. EDWARD DAMER
(Mini-Session) Concept of Fallibility *BEG, COLL, MID/HIGH, H CON*

7:00 PM – 8:15 PM

YEHUDI WEBSTER COMMENCEMENT LAWN
Keynote: Riding the Third Wave in the Shoals of Everday Life: A Personal Account

8:15 PM – 11:00 PM

THINKFEST DINING COMMONS

TUESDAY

9:00AM – 10:15 AM

RALPH H. JOHNSON EPT
Keynote: Intellectual Standards for Critical Thinking

10:30 AM – 12:00 PM

GERALD NOSICH DAR 108
Providing a Model for Student Self-assessment in a Subject-Matter Course *COLL, HIGH*

MARK WEINSTEIN STEV 1002
A Comprehensive Approach to Instructional Planning
GEN

RICHARD PAUL, RALPH JOHNSON SU 100
Informal Logic: Is Our Present Concept Comprehensive Enough? *INF LOGIC, COLL*

SANDY FRITZ-KELLY, RN, MSN: M ED CAR 68
Applying Critical Thinking Skills to the Complex Task of Delegating Nursing Care *NURS, HEALTH, COLL*

CONFERENCE SCHEDULE

TUESDAY

10:30 AM – 12:00 PM

Continued

JUDITH COLLISON STEV 3008
How to Write and Evaluate Open-ended Questions in Mathematics *TEST, MATH, K-12*

WENDY OXMAN STEV 2049
Elementary Teachers' Perceptions of Critical Thinking in Theory and Practice *ELEM, STAFF DEV, TACTIC/STRAT*

P.K. MOHAPATRA STEV 2006
Critical Thinking and the Problem of Personal Identity
ADV, PSYCH, LANG, TACTIC/STRAT

JAMES O'CONNOR ART 108
A Renewal Seminar: The Role of Critical Thinking in Your Life *TACTIC/STRAT, STAFF DEV, SOC STUD, H CON*

H. OGDEN MORSE STEV 3072
Literature, History, and What We Believe *MID/HIGH, TACTIC/STRAT, LANG, SOCIOL*

GAIL HUGHES, MARGARET BORDEN, SANDRA KAPLAN, JUDY NELSON IVES 34
Conducting and Assessing Critical Thinking Interviews: Excerpts from Interdisciplinary Areas, Developmental Education, and Biology *TEST, COLL, STAFF DEV, INF LOGIC*

EDWARD B. RIPPY DAR 112
Critical Thinking, Fear of Freedom, and Authoritarianism *PSYCH, H CON, TACTIC/STRAT, BEG*

GEORGE H. HANFORD IVES 35
Observing an Element of Critical Thinking? *GEN*

VICKEY DALEY, SYLVIA BIERSCHENK STEV 3049
What do You See? What do You Know? *MID/HIGH, BEG, TACTIC/STRAT, LANG*

MAX DRESDEN DAR 139
The Notion of Proofs and Evidence *SCI, COLL, ADV*

KAREN RANKIN, CAROL WILSON DAR 122
The Fortune Cookie Syndrome: Self-disclosure as a Teaching/Learning Strategy for Critical Thinking *NURS, SOCIOL, PSYCH, FEM*

JERRY CEDERBLOM STEV 3046
The Critical Reasoner As Protagonist *INF LOGIC, TACTIC/STRAT, COLL*

CHARLES ANGELETTI STEV 3040
The American Road as Metaphor: Exploring the Voices of Those "On the Road" in America to Teach Critical Thinking *MID/HIGH, COLL, MUL-CULT, SOC STUD*

CONFERENCE SCHEDULE

- ERIC E. MILLER STEV 3076
The Law of Conservation of Mass and Inductive Reasoning *ELEM, BEG, SCI*
- JOANN RADDUE, GEORGE RADDUE STEV 2065
Critical Thinking Smorgasbord: Showcase of Project-Based Learning Activities *ELEM, STAFF DEV, SCI, ENV*

MINI-SESSIONS
IVES 119

10:30 AM – 11:10 AM

- WILLIAM L. HOOPER
(Mini-Session) Thinking About Paintings *COLL, ARTS*
- JEFF REED
(Mini-Session) Leading Socratic Discussions in History Classes *MID/HIGH, COLL*
- 11:20 AM – 12:00 PM
- TISH ALLEN
(Mini-Session) Student Initiated Study of Assumptions *COLL, TEST, TACTIC/STRAT*
- P.J. JANSON
(Mini-Session) Critical Thinking in Music History Courses *COL, BEG, ARTS*

12:00 PM – 1:30 PM

LUNCH

Available at BBQ (outside Dining Commons), in Pub (upstairs Student Union) or at the Commons Dining Facility (inside Dining Commons).

1:30 PM – 3:00 PM

- BEN E. JOHNSON WARREN
A Successful Private Funding Model for District-Wide Teacher Training in Thinking Skills: Sarasota County and the Selby Chair in Critical Thinking *K-12, COLL, BEG, ADV*
- JANE WILLSÉN LORAND DAR 108
How Do I Know if My Thinking is Good Thinking? Teaching Intellectual Standards to Middle School and High School Students *MID/HIGH, STAFF DEV*

CONFERENCE SCHEDULE

TUESDAY

1:30 PM – 3:00 PM

Continued

- SOPHIA MING-LEE WEN STEV 1002
The Four Modes of Critical Thinking: Its Nature and Critique *PHIL, SOCIOI, BEG*
- RALPH H. JOHNSON, RICHARD PAUL, CONNIE MISSIMER, ANNE M. PHELAN SU 100
Re-Thinking Reason (Panel Discussion) *GEN, INF LOGIC*
- LINDA ELDER CAR 68
Struggling Against Egocentrism: My Personal Journey *GEN, TACTIC/STRAT*
- JONAH RASKIN STEV 3008
Joseph McCarthy, Television, and the Limits of Critical Thinking *MEDIA, POL, SOC STUD, H CON*
- PENNY HEASLIP STEV 2049
Classroom Assessment of Critical Thinking Learning Activities *COLL, BEG, TEST, NURS, TACTIC/STRAT*
- LES GOTTESMAN STEV 2006
Toon Logic III *BEG, INF LOGIC, TACTIC/STRAT*
- DONALD HATCHER, LUCY PRICE ART 108
Combining Critical Thinking and Written Composition: The Whole is Greater Than the Sum of the Parts *COLL, STAFF DEV, TEST*
- JOHN R. FEARE STEV 3072
Critical Thinking Within a Theological Dimension *H CON*
- DANIEL C. ABEL, ROBERT L. MCCONNELL IVES 35
Understanding Environmental Issues Using Critical Thinking, Simple Math, and the Metric System *ENV, MATH/SCI, COLL, MID/HIGH*
- PHYLLIS L. SIMPSON DAR 112
MINDS: Architectural Supplies for the Instructional Designer *COLL, MID/HIGH, LANG, TACTIC/STRAT*
- LEE BROWN IVES 34
Materials, Methods, and Strategies for Teaching Critical Thinking to the Educationally Disadvantaged-to Students at Risk *MID/HIGH, COLL, MUL-CULT, TACTIC/STRAT, BEG*
- V. SHVYRKOV STEV 3049
Principles of Critical Thinking in Statistical Science *TEST, BUS, MATH/SCI, TACTIC/STRAT*

CONFERENCE SCHEDULE

- SHERRI MCCARTHY-TUCKER, PH. D. DAR 139
Teaching Reality-Based Formal Logic to Adolescents to Improve Critical Thinking Skills *PSYCH, TACTIC/STRAT, INF LOGIC, GEN*
- RENÉE RUDERMAN. DAR 122
The Beat, the Word, the Feeling! Using the Techniques of Poetry to Generate Critical Thinking and Writing *LANG, ARTS, MID/HIGH, COLL, BEG, TACTIC/STRAT*
- DAWN PATTERSON STEV 3046
Active Engagement and the Construction of Knowledge *COLL, TACTIC/STRAT, NURS, BEG*
- MICHAEL A. GRIFFIN STEV 3040
Critical Thinking: A Practical Guide *ADV, MID/HIGH, COLL*
- ERIC E. MILLER STEV 3076
Consumer Science *ELEM, BEG, SCI*
- GEORGE RADDUE, JOANN RADDUE STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*

MINI-SESSIONS
IVES 119

1:30 PM – 2:10 PM

- CLAUDE GRATTON
(Mini-Session) A Game of Posing Critical Questions While Watching Television *INF LOGIC, GEN*

2:20 PM – 3:00 PM

- LINDA Q. SMITH
(Mini-Session) Teaching Critical Thinking Through Chess *K-12, BEG, TACTIC/STRAT, INF LOGIC*

3:15 PM – 4:45 PM

- RALPH H. JOHNSON, MAURICE FINOCCHIARO, JERRY CEDERBLOM, CLAUDE GRATTON WARREN
Panel on Informal Logic *GEN, INF LOGIC*
- GERALD NOSICH. DAR 108
Pyramid Teaching: Formulating a Philosophy of Education *COLL, HIGH*
- ROBERT D. ALLEN, DAVID J. STROUP STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics *MATH/SCI, TACTIC/STRAT, HEALTH, NURS*

CONFERENCE SCHEDULE

TUESDAY

3:15 PM – 4:45 PM

Continued

- JAN WILLIAMSON, RENATE OTTERBACH, H. OGDEN MORSE, JANE DAVIS-SEEVER, DAN BURRITT, WILLIAM STEPIEN, JUDITH COLLISON SU 100
Panel Discussion of Critical Thinking in the K-12th Grade Curriculum *K-12*
- LINDA ELDER CAR 68
A Stage Theory of Critical Thinking in Adulthood *GEN, BEG*
- JARED HAYNES STEV 3008
Designing Writing Assignments that Foster Critical Thinking *COLL, BEG, TACTIC/STRAT*
- JIM POLLARD STEV 2049
Making the World a Different Place with New Thinking *TACTIC/STRAT, GEN*
- ANN KERWIN, JUDY NELSON STEV 2006
Thinking Passionately: Ignorance, Critical Thinking, and the Reluctant Student *COLL, TACTIC/STRAT, MID/HIGH, BEG*
- GIUSEPPE AMEDEO GALVAN ART 108
Love Belongs to the Essence of Wisdom? Reflections about the Practical Dimension of Critical Thinking *COLL, TACTIC/STRAT, PSYCH, INF LOGIC*
- DARRELL E. COSTA, STEVEN ROSENBLOOM. STEV 3072
Demagogues in Our Midst: Critically Assessing Demagogic "Talk" in Our Political, Religious and Entertainment Leaders (From Limbaugh, Gingrich and Robertson to Jackson, Perot, Farrakhan and Kahane, to You and I) *LANG, POL, INF LOGIC, COLL*
- PENNY HEASLIP IVES 34
NLN Site Visit: The Essential Elements *COLL, STAFF DEV, TEST, NURS*
- SANDRA A. JONES, LYNDIA N. BROWN DAR 112
Creating an Agenda for Critical Thinking in Nursing Education: Out of the Past, Into the Future *NURS, HEALTH*
- JOELYN SCRIBA IVES 35
Critical Thought as a Personal Journey *FEM, NURS*

- KIM SKOOG STEV 3049
A Multicultural/Critical Thinking Reader *ELEM, MUL-CULT, ARTS, SOC STUD*
- PAUL TANNER DAR 139
Audio Tape as a Feedback Tool: Increased Transfer of Critical Thinking Skills *TACTIC/STRAT, TEST, COLL, MID/HIGH*
- PRISCILLA AGNEW DAR 122
Sex, Death, Advertising and Children: Teaching Media Literacy *MEDIA, INF LOGIC, TACTIC/STRAT, H CON*
- GREGORY BASSHAM, HENRY NARDONE STEV 3046
Using the Film "JFK" to Teach Critical Thinking *TACTIC/STRAT, POL, MEDIA, SOC STUD*
- LES GOTTESMAN STEV 3040
What is Hermeneutics and is it Critical? *COLL, POL, LANG, SOCIO*
- GEORGE RADDUE, JOANN RADDUE STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*

MINI-SESSIONS
IVES 119

3:15 PM – 3:55 PM

- MARIAN B. SIDES
(Mini-Session) Analyzing Assumptions Underlying Critical Thoughts *TACTIC/STRAT, NURS, STAFF DEV, HEALTH, COLL*

4:05 PM – 4:45 PM

- SHIRLEY TAN, LIM TOCK KENG
(Mini-Session) The Community of Inquiry Approach to Critical Thinking *BEG, MID/HIGH, MUL-CULT, TACTIC/STRAT*

8:00 PM – 11:00 PM

SPECIAL INTEREST GROUPS AT THINKFEST **DINING COMMONS**

Please see page 47 for details.

WEDNESDAY

8:45 AM – 10:15 AM

- GERALD NOSICH DAR 108
Working with the Elements of Reasoning *GEN*
- GEORGE M. LUCKEY JR. STEV 1002
Common Slogans and Uncommon Sense *TACTIC/STRAT, MID/HIGH, COLL*
- RICHARD PAUL SU 100
What Is It to Join the Third Wave? *GEN*
- JOHN R. FEARE CAR 68
Beyond Speechmaking and the Marketplace of Ideas: A Radical Transformation in Communication *H CON*
- JARED HAYNES STEV 3008
The Writing Strategies of College Students: Reflections of Cognitive Development *COLL*
- WILLIA L. NWA STEV 2049
Thinking Critically About Cultural Diversity: How Should Educators Do It? *MID/HIGH, COLL, BEG, MUL-CULT, H CON*
- ROBERT L. MCCONNELL, DANIEL C. ABEL STEV 2006
Critical Assessment of College Student Course Reaction Questionnaires *STAFF DEV, TEST, TACTIC/STRAT, COLL*
- MAVIS ALDRIDGE ART 108
Analogical Reasoning: A Research Project on Cognitive Processes in the Interpretation of Proverbs between Advanced and Less Advanced College Students *COLL, ADV, MUL-CULT, LANG*
- JANE DAVIS-SEAVER STEV 3072
Constructivism—Putting Critical Thinking to Work in the Elementary Classroom *ELEM, TACTIC/STRAT*
- TISH ALLEN IVES 34
Toward Strong Self-Assessment Skills *COLL, TEST*
- MARSHA E. FONTEYN DAR 112
Strategies for Improving Nurses' Clinical Reasoning Skills *COLL, HEALTH, NURS, TACTIC/STRAT*
- MARIA CARDELLE-ELAWAR STEV 3049
A Self-Regulated Model to Guide Low-Achieving Students in Solving Mathematics Problems *GEN, BEG, ADV, MUL-CULT*
- JIM POLLARD DAR 139
Finding Meaning—The Search for Logic *TACTIC/STRAT, GEN*

CONFERENCE SCHEDULE

- DAN BURRITT DAR 122
Using Reciprocity: Mutual Exchange of Information in Solving Tasks or Problems *K-12, TACTIC/STRAT*
- BRANT ABRAHAMSON STEV 3046
Teaching About Religion from an Empathetic but Critical Thinking Perspective *HIGH*
- BERNARD DAVIS STEV 3040
Informal Logic and the Problem of Factual Belief *COLL, INF LOGIC, ADV, TACTIC/STRAT*
- RENATE OTTERBACH STEV 2065
Teaching Critical Thinking Inductively *TACTIC/STRAT, STAFF DEV, MID/HIGH, COLL*

MINI-SESSIONS

IVES 119

8:45 AM – 9:25 AM

- KRISTAN CAVINA
(Mini-Session) **Teaching Grammar Through Critical Thinking** *MID/HIGH, COLL*
- DONALD JOHNS
(Mini-Session) **Identifying Central Passages in Essays or Stories** *MID/HIGH, COLL*
- ROSE AGUILAR WELCH, KATHLEEN F. O'CONNOR, MARY J. CRUISE
(Mini-Session) **Critical Thinking: Getting There with Fun and Games** *COLL, TACTIC/STRAT*
- BRENDA CHEREDNICHENKO
(Mini-Session) **Confident Critical Thinkers** *GEN*

10:30 AM – 12:00 PM

- PENNY HEASLIP DAR 108
Paradigm Shift in Nursing Education: Curriculum Reform in Action *COLL, FEM, STAFF DEV, NURS*
- ANN KERWIN, MARYLS WITTE, M.D., CHARLES WITTE, M.D. STEV 1002
Don't Vanquish Ignorance...Use It Well! *COLL, MID/HIGH, HEALTH, NURS*
- RICHARD PAUL SU 100
How To Recognize Pseudo Critical Thinking *GEN*
- LINDA ELDER CAR 68
Critical Thinking and the Young Child *ELEM, TACTIC/STRAT*

CONFERENCE SCHEDULE

WEDNESDAY

10:30 AM – 12:00 PM

Continued

- JUDITH COLLISON STEV 3008
The Role of Critical Thinking in Mathematics Education Reform *MATH, STAFF DEV, K-12*
- BURTON VOORHEES STEV 2049
Could a Computer Ever Think—Critically or Otherwise? *MATH/SCI, ADV, INF LOGIC*
- JEFF REED STEV 2006
Illustrations and the Information Age *STAFF DEV, MID, TEST, COMP AID*
- LAUREN COODLEY, ROBERT WRIGHT ART 108
Critical Thinking and Medicine: A Dialectical Analysis *HEALTH, POL, BUS, SOCIOLOGICAL*
- RALPH H. JOHNSON STEV 3072
The Principle of Vulnerability *ADV, INF LOGIC, COLL*
- PAUL TANNER IVES 34
Critical Writing: Getting from Wording to Meaning *TACTIC/STRAT, COLL, MID/HIGH, TEST*
- RUBY TROW, MARILYNN FILBECK DAR 112
Jigsaw: A Collaborative Strategy for Teaching Critical Thinking *TEST, TACTIC/STRAT, COLL, BEG*
- EDWARD L. MCGUIRE STEV 3049
Reflective Logic and Third-Wave Critical Thinking *INF LOGIC, COLL, TACTIC/STRAT*
- KIM SKOOG DAR 139
A Pluralistic Model of Knowledge *ADV, PSYCH, MUL-CULT, SOCIOLOGICAL*
- FREDERIC TÖRZS DAR 122
Rational Choice and Strong-Sense Critical Thinking *H CON, PSYCH, COLL, INF LOGIC*
- BRANT ABRAHAMSON STEV 3046
Using Critical Thinking to Understand Prejudice: A Workshop - Demonstration *MID/HIGH, TACTIC/STRAT, SOC STUD, H CON*
- ROBERT J. MENGES STEV 3040
Critical Thinking and Evaluation of Professor's Teaching *COLL, STAFF DEV*

CONFERENCE SCHEDULE

CANDACE JESSE STOUT STEV 2065
Critical Thinking and Criticizing Art *ARTS, TACTIC/STRAT, COLL,*
MID/HIGH

MINI-SESSIONS

IVES 119

10:30 AM – 11:10 AM

VICKEY DALEY, SYLVIA BIERSCHENK
(Mini-Session) Real-World Focus: The Practical Art of
Reasoning *MID/HIGH, COLL*

12:00 PM – 1:30 PM

LUNCH

Available at BBQ (outside Dining Commons), in Pub
(upstairs Student Union) or at the Commons Dining Facility
(inside Dining Commons).

1:30 PM – 3:00 PM

WRAP-UP SESSION WITH RICHARD PAUL WARREN AUDITORIUM

SPECIAL INTEREST GROUPS

SPECIAL INTEREST GROUPS

TUESDAY, 8:00 PM

In order to facilitate networking between colleagues with similar interests, special interest group meetings will be combined with the Tuesday night ThinkFest held in the Dining Commons. Tables will be designated for various interest groups to meet and organize themselves. The nature and extent of the organization is dependent on the will of the members present. We suggest as a minimum that each group develop a networking list with addresses and phone numbers.

Below is a list of the interest groups which were chosen based on information obtained from your registration forms. Additional groups may be added and impromptu groups will, of course, be welcomed.

CRITICAL THINKING IN THE DISCIPLINES

- Critical Thinking in the Arts
- Critical Thinking in Business and Management
- Critical Thinking and Education
- Critical Thinking and Gifted Education
- Critical Thinking and Informal Logic
- Critical Thinking and Language Arts
- Critical Thinking and Mathematics
- Critical Thinking in Nursing
- Critical Thinking and Philosophy
- Critical Thinking and Psychology
- Critical Thinking and the Sciences
- Critical Thinking and Social Studies and History

CRITICAL THINKING PEDAGOGY

- Critical Thinking and Feminism
- Critical and Multi-Cultural Thinking
- Critical Thinking Staff Development

CRITICAL THINKING AND EDUCATIONAL LEVELS

- Critical Thinking and Elementary School
- Critical Thinking and Middle School
- Critical Thinking and High School
- Critical Thinking and the Community College
- Critical Thinking and the University
- Graduate Schools in Critical Thinking

SELECTED SESSIONS
LISTED BY AUDIENCE CODE

ADVANCED

- MAURICE A. FINOCCHIARO** Sun 1:30; STEV 3072
Philosophy and Critical Thinking in Socrates, Galileo, and Marx *ADV, INF LOGIC, POL, H CON*
- DOUG BRENNER, TOM GEU** Sun 1:30; STEV 3040
Critical Thinking and the Rules of Evidence in Law: A Historical Perspective and Pedagogical Implications *COLL, ADV, TACTIC/STRAT*
- CONNIE MISSIMER** Sun 3:15; STEV 3072
The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence *ADV, MATH/SCI, FEM, INF LOGIC*
- FRANK E. COLBOURN** Mon 1:30; ART 108
How We Put the Background of Epistemic Application Into the Foreground of Critical Thinking *COLL, ADV, PSYCH, TACTIC/STRAT*
- RON BOHANNON** Mon 3:15; IVES 34
A Critical Study of H.L. Mencken's Dialectic Irony in *In Defense of Women* *BEG, ADV, LANG, TACTIC/STRAT*
- P.K. MOHAPATRA** Tues 10:30; STEV 2006
Critical Thinking and the Problem of Personal Identity *ADV, PSYCH, LANG, TACTIC/STRAT*
- MICHAEL A. GRIFFIN** Tues 1:30; STEV 3040
Critical Thinking: A Practical Guide *ADV, MID/HIGH, COLL*

ADVANCED

Continued

- MAVIS ALDRIDGE Wed 8:45; ART 108
Analogical Reasoning: A Research Project on Cognitive Processes in the Interpretation of Proverbs between Advanced and Less Advanced College Students *COLL, ADV, MUL-CULT, LANG*
- MARIA CARDELLE-ELAWAR Wed 8:45; STEV 3049
A Self-Regulated Model to Guide Low-Achieving Students in Solving Mathematics Problems *GEN, BEG, ADV, MUL-CULT*
- BURTON VOORHEES Wed 10:30; STEV 2049
Could a Computer Ever Think—Critically or Otherwise? *MATH/SCI, ADV, INF LOGIC*
- RALPH H. JOHNSON Wed 10:30; STEV 3072
The Principle of Vulnerability *ADV, INF LOGIC, COLL*
- KIM SKOOG Wed 10:30; DAR 139
A Pluralistic Model of Knowledge *ADV, PSYCH, MUL-CULT, SOCIO*

ARTS

- WILLIAM L. HOOPER Mon 3:15; STEV 3046
Thinking Critically in the Fine Arts *COLL, ARTS, TACTIC/STRAT, COLL*
- WILLIAM L. HOOPER Tues 10:30–11:10; IVES 119
(Mini-Session) Thinking About Paintings *COLL, ARTS*
- P.J. JANSON Tues 11:20–12:00; IVES 119
(Mini-Session) Critical Thinking in Music History Courses *COL, BEG, ARTS*
- CANDACE JESSE STOUT Wed 10:30; STEV 2065
Critical Thinking and Criticizing Art *ARTS, TACTIC/STRAT, COLL, MID/HIGH*

BEGINNERS

- M. NEIL BROWNE, STUART M. KEELEY Sun 10:30; WARREN
Getting Started as a Teacher of Critical Thinking: Classroom Behavior and Assignments *TACTIC/STRAT, COLL, BEG, SOC STUD*
- MARGARET ANDERSON, VICTORIA ALLEN Sun 10:30; IVES 35
Socratic Seminars *TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG*

- M. NEIL BROWNE, STUART M. KEELEY Sun 1:30; WARREN
Lessons Learned from Two Decades of Teaching Critical Thinking *TACTIC/STRAT, COLL, BEG, SOC STUD*
- RICHARD PAUL Sun 1:30; SU 100
Beyond Argumentation: The Use of Reason in Everyday Life *GEN, BEG*
- KENNETH ANDERSON Sun 1:30; ART 108
Critical Thinking Made Simple *BEG, COLL, MID/HIGH, INF LOGIC*
- MARGARET ANDERSON, VICTORIA ALLEN Sun 1:30; IVES 35
Socratic Seminars *TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG*
- ERIC E. MILLER Sun 1:30; STEV 3046
Advertising *MID/HIGH, BEG, LANG*
- THOMAS HART, REBECCA SKAGGS Sun 3:15; STEV 3040
Integrating Critical Thinking at a Christian College *COLL, BEG, LANG, MUL-CULT*
- RICHARD PAUL Mon 10:30; SU 100
Socratic Questioning: A Series of Three Demonstration Sessions. First Demonstration (Asking Questions That Take Thinking Apart) *TACTIC/STRAT, BEG*
- STUART M. KEELEY Mon 10:30; CAR 68
Coping with Student Resistance to Critical Thinking *TACTIC/STRAT, COLL, BEG, SOC STUD*
- GERALD NOSICH Mon 1:30; WARREN
An Introduction To Critical Thinking: What Is It? Why Should I Teach For It? How Can I Teach For It? *GEN, BEG*
- RICHARD PAUL Mon 1:30; SU 100
Socratic Questioning (Second Demonstration Session): Asking Questions That Assess Thinking Based on Intellectual Standards *TACTIC/STRAT, BEG*
- DIXON WRAGG Mon 1:30; STEV 2049
Reasoning with Irrational Persons *PSYCH, H CON, BEG*
- WILLIAM B. STREAN, RUSS LINDGREN Mon 1:30; DAR 112
Critical Thinking About Sport/ Critical Thinking Within Sport *GEN, PSYCH, BEG, MEDIA, H CON*
- RICHARD PAUL Mon 3:15; SU 100
Socratic Questioning (Third Demonstration Session): Asking Questions Based on Systems and Domains *TACTIC/STRAT, BEG*
- NANCY CARTER McDONALD Mon 3:15; CAR 68
A Critical Thinking Model for the College Classroom *COLL, TACTIC/STRAT, BEG, NURS*

BEGINNERS

Continued

- RON BOHANNON Mon 3:15; IVES 34
A Critical Study of H.L. Mencken's Dialectic Irony in *In Defense of Women* *BEG, ADV, LANG, TACTIC/STRAT*
- WILLIAM J. STEPIEN, SHELAGH A. GALLAGHER . Mon 3:15; STEV 2065
Thinking Is More Than "Bumper Sticker" Reasoning *TACTIC/STRAT, BEG, K-12*
- T. EDWARD DAMER Mon 4:05-4:45; IVES 119
(Mini-Session) Concept of Fallibility *BEG, COLL, MID/HIGH, H CON*
- VICKEY DALEY, SYLVIA BIERSCHENK Tues 10:30; STEV 3049
What do You See? What do You Know? *MID/HIGH, BEG, TACTIC/STRAT, LANG*
- PENNY HEASLIP Tues 1:30; STEV 2049
Classroom Assessment of Critical Thinking Learning Activities *COLL, BEG, TEST, NURS, TACTIC/STRAT*
- LES GOTTESMAN Tues 1:30; STEV 2006
Toon Logic III *BEG, INF LOGIC, TACTIC/STRAT*
- LINDA ELDER Tues 3:15; CAR 68
A Stage Theory of Critical Thinking in Adulthood *GEN, BEG*
- ANN KERWIN, JUDY NELSON Tues 3:15; STEV 2006
Thinking Passionately: Ignorance, Critical Thinking, and the Reluctant Student *COLL, TACTIC/STRAT, MID/HIGH, BEG*
- SHIRLEY TAN, LIM TOCK KENG Tues 4:05-4:45; IVES 119
(Mini-Session) The Community of Inquiry Approach to Critical Thinking *BEG, MID/HIGH, MUL-CULT, TACTIC/STRAT*
- MARIA CARDELLE-ELAWAR Wed 8:45; STEV 3049
A Self-Regulated Model to Guide Low-Achieving Students in Solving Mathematics Problems *GEN, BEG, ADV, MUL-CULT*

BUSINESS

- NANCY KUBASEK, ANDREA GIAMPETRO-MEYER Sun 10:30; STEV 3072
Introducing Critical Thinking into the Legal Environment of Business Classroom *BUS, COLL*
- DENNIS MATTHIES Sun 3:15; STEV 2006
Working Smarter Through Precision Questioning I *GEN, BEG, BUS, TACTIC/STRAT*

- TRISH TAYLOR-JONES Sun 3:15; IVES 35
A Critical Thinking Road Map to Problem Solving: Avoiding the Pitfalls *BUS, STAFF DEV*
- DENNIS MATTHIES Mon 10:30; STEV 2049
Working Smarter Through Precision Questioning II *GEN, BEG, BUS, TACTIC/STRAT*
- SUE Y. LUCKEY Mon 10:30; STEV 3072
Creative and Critical Thinking Strategies for Participating in a Global Economy *MUL-CULT, BUS, MID/HIGH, COLL*
- DEANNA L. YAMEEN, MARITA PRATER Mon 3:15; STEV 3072
Interdependent (Critical) Thinking: A Bridge Between Education and the Workplace *COLL, STAFF DEV, ADV, NURS*
- V. SHVYRKOV Tues 1:30; STEV 3049
Principles of Critical Thinking in Statistical Science *TEST, BUS, MATH/SCI, TACTIC/STRAT*

COLLEGE

- M. NEIL BROWNE, STUART M. KEELEY Sun 10:30; WARREN
Getting Started as a Teacher of Critical Thinking: Classroom Behavior and Assignments *TACTIC/STRAT, COLL, BEG, SOC STUD*
- HARRY T. MAYO, PAUL DUAX, GAIL HUGHES, VIRGINIA O'KEEFE, JOAN RYKIEL, MICHAEL MONK Sun 10:30; SU 100
What are We Doing With Critical Thinking in the Community College System and Where are We Headed With It in the Classroom? A Panel Discussion Moderated by Harry Mayo *STAFF DEV, TACTIC/STRAT, BEG, COLL*
- TISH ALLEN, LYNN CHONG, NED MCGUIRE, FREDERIC TORZS, DEANNA YAMEEN Sun 10:30; STEV 2049
Collaboration within One Critical Thinking Department *COLL, TEST*
- LESLIE K. HICKCOX Sun 10:30; ART 108
Developing Problem-Solving Skills through Kolb's Experiential Learning Cycle *COLL, TACTIC/STRAT, BEG, SCI*
- NANCY KUBASEK, ANDREA GIAMPETRO-MEYER Sun 10:30; STEV 3072
Introducing Critical Thinking into the Legal Environment of Business Classroom *BUS, COLL*

COLLEGE

Continued

- LEE BROWN Sun 10:30; STEV 3040
Materials, Methods, and Strategies for Teaching
Critical Thinking to the Educationally
Disadvantaged-to Students at Risk *MID/HIGH, COLL,
MUL-CULT, TACTIC/STRAT, BEG*
- DOUG BRENNER, TOM GEU Sun 1:30; STEV 3040
Critical Thinking and the Rules of Evidence in
Law: A Historical Perspective and Pedagogical
Implications *COLL, ADV, TACTIC/STRAT*
- M. NEIL BROWNE Sun 3:15; WARREN
Potential Trouble Spots that Bedevil Critical
Thinking Classrooms(Participatory Workshop)
TACTIC/STRAT, COLL, MID/HIGH
- KATHLEEN HERSCHELMANN Sun 3:15; STEV 3008
Critical Thinking in International Trade-Using a
Format Adaptable to Other Disciplines *HIGH, COLL,
BUS, TACTIC/STRAT*
- EDNA MAYE LOVELESS Sun 3:15; STEV 3049
Fuzzy Thinking Produces Fuzzy Writing: An
Alert for Precise Language *COLL, LANG, TACTIC/STRAT*
- LARRY LITECKY Sun 3:15; STEV 3046
Active Learning and Improving the Quality of
Thinking *TACTIC/STRAT, COLL, STAFF DEV*
- THOMAS HART, REBECCA SKAGGS Sun 3:15; STEV 3040
Integrating Critical Thinking at a Christian
College *COLL, BEG, LANG, MUL-CULT*
- DONALD HATCHER Mon 10:30; ART 108
Three Theories of Rationality: Implications for
Educational Practice *TEST, TACTIC/STRAT, INF LOGIC, COLL*
- TOBY KLINGER Mon 10:30; DAR 112
Integrating Critical Thinking into the Teaching
of Introduction to Psychology *COLL, BEG, INF LOGIC,
PSYCH, TACTIC/STRAT*
- SHARON SCHWARZE, HARVEY LAPE Mon 10:30; IVES 34
The Third Wave is the Oldest Wave: The
Socratic Model *COLL, TACTIC/STRAT, INF LOGIC*
- HERMAN HALUZA Mon 10:30; STEV 3049
Literature and the Writing Curriculum *COLL, ARTS,
TACTIC/STRAT*
- RICHARD B. LEWIS Mon 10:30; STEV 2065
Critical Thinking: Classroom Procedures,
Format, Grading, etc. Part 1 *COLL, TACTIC/STRAT, MATH*

- JARED HAYNES Mon 10:30-11:10; IVES 119
(Mini-Session) The Exploratory Paper: Prelude to
Argument *COLL*
- KATHLEEN HERSCHELMANN Mon 11:20-12:00; IVES 119
(Mini-Session) Writing Modules Using Critical
Thinking as a Base *MID/HIGH, COLL*
- FRANK E. COLBOURN Mon 1:30; ART 108
How We Put the Background of Epistemic
Application Into the Foreground of Critical
Thinking *COLL, ADV, PSYCH, TACTIC/STRAT*
- JAN WILLIAMSON Mon 1:30-2:10; IVES 119
(Mini-Session) Writing and Critical Thinking:
Action Research at One College *COLL*
- ROBERT G. BUCKENMEYER Mon 1:30; STEV 3040
Traditional Critical Thinking and the American
English Language and "Culture" *COLL, STAFF DEV,
LANG, INF LOGIC*
- RICHARD B. LEWIS Mon 1:30; STEV 2065
Critical Thinking: Classroom Procedures,
Format, Grading, etc. Part 2 *COLL, TACTIC/STRAT, MATH*
- JEFFERY, R.W. DONLEY Mon 2:20-3:00; IVES 119
(Mini-Session) The Hermeneutical Worksheet
COLL
- JANE WILLSÉN LORAND Mon 3:15; ART 108
Self-Assessment at the High School and College
Level: Peer Editing, Group and Individual
Assessment in Speaking and Writing *MID/HIGH,
COLL, STAFF DEV*
- DEANNA L. YAMEEN, MARITA PRATER Mon 3:15; STEV 3072
Interdependent (Critical) Thinking: A Bridge
Between Education and the Workplace *COLL, STAFF
DEV, ADV, NURS*
- LYNN R. CHONG Mon 3:15; STEV 3040
How Do You Know Your Evidence Is True? *HIGH,
COLL, TACTIC/STRAT*
- GERALD NOSICH Tues 10:30; DAR 108
Providing a Model for Student Self-assessment
in a Subject-Matter Course *COLL, HIGH*
- JEFF REED Tues 10:30-11:10; IVES 119
(Mini-Session) Leading Socratic Discussions in
History Classes *MID/HIGH, COLL*
- P.J. JANSON Tues 11:20-12:00; IVES 119
(Mini-Session) Critical Thinking in Music History
Courses *COL, BEG, ARTS*

COLLEGE

Continued

- PENNY HEASLIP Tues 1:30; STEV 2049
Classroom Assessment of Critical Thinking Learning Activities *COLL, BEG, TEST, NURS, TACTIC/STRAT*
- DAWN PATTERSON Tues 1:30; STEV 3046
Active Engagement and the Construction of Knowledge *COLL, TACTIC/STRAT, NURS, BEG*
- MICHAEL A. GRIFFIN Tues 1:30; STEV 3040
Critical Thinking: A Practical Guide *Adv, Mid/High, COLL*
- GERALD NOSICH Tues 3:15; DAR 108
Pyramid Teaching: Formulating a Philosophy of Education *COLL, HIGH*
- GIUSEPPE AMEDEO GALVAN Tues 3:15; ART 108
Love Belongs to the Essence of Wisdom? Reflections about the Practical Dimension of Critical Thinking *COLL, TACTIC/STRAT, PSYCH, INF LOGIC*
- LES GOTTESMAN Tues 3:15; STEV 3040
What is Hermeneutics and is it Critical? *COLL, POL, LANG, SOCIOL*
- JARED HAYNES Wed 8:45; STEV 3008
The Writing Strategies of College Students: Reflections of Cognitive Development *COLL*
- ROBERT L. MCCONNELL, DANIEL C. ABEL Wed 8:45; STEV 2006
Critical Assessment of College Student Course Reaction Questionnaires *STAFF DEV, TEST, TACTIC/STRAT, COLL*
- MAVIS ALDRIDGE Wed 8:45; ART 108
Analogical Reasoning: A Research Project on Cognitive Processes in the Interpretation of Proverbs between Advanced and Less Advanced College Students *COLL, ADV, MUL-CULT, LANG*
- TISH ALLEN Wed 8:45; IVES 34
Toward Strong Self-Assessment Skills *COLL, TEST*
- BERNARD DAVIS Wed 8:45; STEV 3040
Informal Logic and the Problem of Factual Belief *COLL, INF LOGIC, ADV, TACTIC/STRAT*
- EDWARD L. MCGUIRE Wed 10:30; STEV 3049
Reflective Logic and Third-Wave Critical Thinking *INF LOGIC, COLL, TACTIC/STRAT, MID/HIGH, COLL, TEST, TACTIC/STRAT*

- ROBERT J. MENGES Wed 10:30; STEV 3040
Critical Thinking and Evaluation of Professor's Teaching *COLL, STAFF DEV*

ELEMENTARY

- WILLIAM H. MAURER, PATRICIA A. MAURER Sun 10:30; IVES 34
Moving From "I Think I Can!" to "I Can Think!": Changing Attitudes and Actions of Elementary Grade Teachers *ELEM, BEG, STAFF DEV, TACTIC/STRAT*
- CHERRIE L. KASSEM Sun 1:30; STEV 3049
Critical Thinking and Early Childhood Education: Design for a Master's Level Course on Critical Thinking and Creativity in the Classroom *ELEM, COLL, TACTIC/STRAT*
- JANE DAVIS-SEAVER Sun 3:15-3:55; IVES 119
(Mini-Session) Portfolios for Critical Thinking *ELEM*
- BRENDA CHEREDNICHENKO Mon 1:30; IVES 34
The Geographical Location of the Teaching of Thinking Skills Programs *ELEM, SOCIOL*
- WENDY OXMAN Tues 10:30; STEV 2049
Elementary Teachers' Perceptions of Critical Thinking in Theory and Practice *ELEM, STAFF DEV, TACTIC/STRAT*
- ERIC E. MILLER Tues 10:30; STEV 3076
The Law of Conservation of Mass and Inductive Reasoning *ELEM, BEG, SCI*
- JOANN RADDUE, GEORGE RADDUE Tues 10:30; STEV 2065
Critical Thinking Smorgasbord: Showcase of Project-Based Learning Activities *ELEM, STAFF DEV, SCI, ENV*
- ERIC E. MILLER Tues 1:30; STEV 3076
Consumer Science *ELEM, BEG, SCI*
- GEORGE RADDUE, JOANN RADDUE Tues 1:30; STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*
- GEORGE RADDUE, JOANN RADDUE Tues 3:15; STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*
- KIM SKOOG Tues 3:15; STEV 3049
A Multicultural/Critical Thinking Reader *ELEM, MUL-CULT, ARTS, SOC STUD*

ELEMENTARY

Continued

JANE DAVIS-SEAYER Wed 8:45; STEV 3072
Constructivism—Putting Critical Thinking to Work in the Elementary Classroom *ELEM, TACTIC/STRAT*

LINDA ELDER Wed 10:30; CAR 68
Critical Thinking and the Young Child *ELEM, TACTIC/STRAT*

ENVIRONMENT

JACKIE A. GIULIANO Sun 1:30; DAR 139
The Environmental Studies Curriculum as a Vehicle for the Introduction of Feminist Philosophies and Spirituality Into the Classroom *ENV, FEM, SOC STUD, TACTIC/STRAT*

JACKIE A. GIULIANO Sun 3:15; DAR 139
Challenging our Perception of our World: Merging Ecology and Psychology into "Ecopsychology" *PSYCH, ENV, MUL-CULT, SOCIO*

JACKIE A. GIULIANO Mon 3:15; IVES 35
The Development of Social Responsibility and Environmental Awareness Through Techniques in Critical Teaching - A Community Involvement Approach *TACTIC/STRAT, ENV, POL, BEG*

DANIEL C. ABEL, ROBERT L. MCCONNELL Tues 1:30; IVES 35
Understanding Environmental Issues Using Critical Thinking, Simple Math, and the Metric System *ENV, MATH/SCI, COLL, MID/HIGH*

FEMINIST ISSUES

JACKIE A. GIULIANO Sun 1:30; DAR 139
The Environmental Studies Curriculum as a Vehicle for the Introduction of Feminist Philosophies and Spirituality Into the Classroom *ENV, FEM, SOC STUD, TACTIC/STRAT*

CONNIE MISSIMER Sun 3:15; STEV 3072
The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence *ADV, MATH/SCI, FEM, INF LOGIC*

JOELYN SCRIBA Tues 3:15; IVES 35
Critical Thought as a Personal Journey *FEM, NURS*

HEALTH/NURSING

ELEANOR VANETZIAN, BARBARA CORRIGAN Sun 1:30; IVES 34
"Prep" for Class and Class Activity: Key to Critical Thinking *HEALTH, NURS, TACTIC/STRAT*

MERLE KATAOKA-YAHIRO, KATHERINE ABRIAM-YAGO, ED.D. Sun 3:15; DAR 122
The Use of Mentoring and Role-Modeling with Nursing Students: An Application of the Critical Thinking Model for Nursing Judgment *NURS*

ROSEMARY KELLER Mon 10:30; STEV 3008
Development and Implementation of a Hospital Based Critical Thinking Program *NURS, HEALTH, STAFF DEV, TACTIC/STRAT*

ROSE AGUILAR WELCH, KATHLEEN F. O'CONNOR, MARY J. CRUISE Mon 3:15; DAR 139
A Study of Critical Thinking in Nursing Education *NURS, COLL, BEG, TACTIC/STRAT*

SANDY FRITZ-KELLY, RN. MSN. M ED. Tues 10:30; CAR 68
Applying Critical Thinking Skills to the Complex Task of Delegating Nursing Care *NURS, HEALTH, COLL*

KAREN RANKIN, CAROL WILSON Tues 10:30; DAR 122
The Fortune Cookie Syndrome: Self-disclosure as a Teaching/Learning Strategy for Critical Thinking *NURS, SOCIO, PSYCH, FEM*

DAWN PATTERSON Tues 1:30; STEV 3046
Active Engagement and the Construction of Knowledge *COLL, TACTIC/STRAT, NURS, BEG*

MARIAN B. SIDES Tues 3:15–3:55; IVES 119
(Mini-Session) Analyzing Assumptions Underlying Critical Thoughts *TACTIC/STRAT, NURS, STAFF DEV, HEALTH, COLL*

PENNY HEASLIP Tues 3:15; IVES 34
NLN Site Visit: The Essential Elements *COLL, STAFF DEV, TEST, NURS*

SANDRA A. JONES, LYNDA N. BROWN Tues 3:15; DAR 112
Creating an Agenda for Critical Thinking in Nursing Education: Out of the Past, Into the Future *NURS, HEALTH*

JOELYN SCRIBA Tues 3:15; IVES 35
Critical Thought as a Personal Journey *FEM, NURS*

MARSHA E. FONTEYN Wed 8:45; DAR 112
Strategies for Improving Nurses' Clinical Reasoning Skills *COLL, HEALTH, NURS, TACTIC/STRAT*

HEALTH/NURSING

Continued

- PENNY HEASLIP Wed 10:30; DAR 108
**Paradigm Shift in Nursing Education:
 Curriculum Reform in Action** *COLL, FEM, STAFF DEV,
 NURS*
- ANN KERWIN, MARYLS WITTE, M.D., CHARLES WITTE, M.D.
 Wed 10:30; STEV 1002
Don't Vanquish Ignorance...Use It Well! *COLL,
 MID/HIGH, HEALTH, NURS*
- LAUREN COODLEY, ROBERT WRIGHT Wed 10:30; ART 108
**Critical Thinking and Medicine: A Dialectical
 Analysis** *HEALTH, POL, BUS, SOCIO*

HIGH SCHOOL

- LEE BROWN Sun 10:30; STEV 3040
**Materials, Methods, and Strategies for Teaching
 Critical Thinking to the Educationally
 Disadvantaged-to Students at Risk** *MID/HIGH, COLL,
 MUL-CULT, TACTIC/STRAT, BEG*
- JARED HAYNES Sun 1:30-2:10; IVES 119
(Mini-Session) Commenting on Student Writing
HIGH, COLL
- KATHLEEN HERSCHELMANN Sun 3:15; STEV 3008
**Critical Thinking in International Trade—Using a
 Format Adaptable to Other Disciplines** *HIGH, COLL,
 BUS, TACTIC/STRAT*
- JEANETTE K. MUSER, JULIA E. NORATO, LAWRENCE E. SWESEY
 Sun 3:15; IVES 34
Applying and Teaching Critical Thinking *HIGH,
 MATH/SCI, TEST, TACTIC/STRAT*
- LYNN R. CHONG Mon 3:15; STEV 3040
How Do You Know Your Evidence Is True? *HIGH,
 COLL, TACTIC/STRAT*
- GERALD NOSICH Tues 10:30; DAR 108
**Providing a Model for Student Self-assessment
 in a Subject-Matter Course** *COLL, HIGH*
- GERALD NOSICH Tues 3:15; DAR 108
**Pyramid Teaching: Formulating a Philosophy of
 Education** *COLL, HIGH*
- BRANT ABRAHAMSON Wed 8:45; STEV 3046
**Teaching About Religion from an Empathetic
 but Critical Thinking Perspective** *HIGH*

HUMAN CONFLICTS

- T. EDWARD DAMER Sun 1:30; STEV 1002
How to Construct Effective Moral Arguments
MID/HIGH, COLL, BEG, INF LOGIC
- T. EDWARD DAMER Sun 3:15; STEV 1002
**How to Resolve Disagreements on
 Controversial Issues** *COLL, MID/HIGH, H CON, INF LOGIC*
- DIXON WRAGG Mon 1:30; STEV 2049
Reasoning with Irrational Persons *PSYCH, H CON, BEG*
- DIXON WRAGG Mon 3:15; STEV 2049
Critical Thinking and Social Responsibility *H CON,
 SOCIO, BEG*
- JOHN R. FEARE Tues 1:30; STEV 3072
**Critical Thinking Within a Theological
 Dimension** *H CON*
- JOHN R. FEARE Wed 8:45; CAR 68
**Beyond Speechmaking and the Marketplace of
 Ideas: A Radical Transformation in
 Communication** *H CON*
- FREDERIC TORZS Wed 10:30; DAR 122
**Rational Choice and Strong-Sense Critical
 Thinking** *H CON, PSYCH, COLL, INF LOGIC*
- BRANT ABRAHAMSON Wed 10:30; STEV 3046
**Using Critical Thinking to Understand
 Prejudice: A Workshop - Demonstration**
MID/HIGH, TACTIC/STRAT, SOC STUD, H CON

INFORMAL LOGIC

- T. EDWARD DAMER Sun 10:30; STEV 1002
**How to Distinguish "Good" Arguments from
 "Bad" Ones** *INF LOGIC, GEN*
- T. EDWARD DAMER Sun 1:30; STEV 1002
How to Construct Effective Moral Arguments
MID/HIGH, COLL, BEG, INF LOGIC
- KENNETH ANDERSON Sun 1:30; ART 108
Critical Thinking Made Simple *BEG, COLL, MID/HIGH,
 INF LOGIC*
- MAURICE A. FINOCCHIARO Sun 1:30; STEV 3072
**Philosophy and Critical Thinking in Socrates,
 Galileo, and Marx** *ADV, INF LOGIC, POL, H CON*
- DONALD HATCHER Mon 10:30; ART 108
**Three Theories of Rationality: Implications for
 Educational Practice** *TEST, TACTIC/STRAT, INF LOGIC, COLL*

INFORMAL LOGIC

Continued

- T. EDWARD DAMER Mon 11:20-12:00; IVES 119
 (Mini-Session) Concept of Rebuttal *INF LOGIC, GEN*
- DON FAWKES Mon 1:30; STEV 3046
 How to Teach Students to Distinguish Premises
 and Conclusions *TACTIC/STRAT, BEG, ADV, INF LOGIC*
- RICHARD PAUL, RALPH H. JOHNSON Tues 10:30; SU 100
 Informal Logic: Is Our Present Concept
 Comprehensive Enough? *INF LOGIC, COLL*
- JERRY CEDERBLOM Tues 10:30; STEV 3046
 The Critical Reasoner As Protagonist *INF LOGIC,
 TACTIC/STRAT, COLL*
- RALPH H. JOHNSON, RICHARD PAUL, CONNIE MISSIMER, ANNE M.
 PHELAN Tues 1:30; SU 100
 Re-Thinking Reason (Panel Discussion) *GEN, INF
 LOGIC*
- CLAUDE GRATTON Tues 1:30-2:10; IVES 119
 (Mini-Session) A Game of Posing Critical
 Questions While Watching Television *INF LOGIC,
 GEN*
- LES GOTTESMAN Tues 1:30; STEV 2006
 Toon Logic III *BEG, INF LOGIC, TACTIC/STRAT*
- RALPH H. JOHNSON, MAURICE FINOCCHIARO, JERRY CEDERBLOM,
 CLAUDE GRATTON Tues 3:15; WARREN
 Panel on Informal Logic *GEN, INF LOGIC*
- DARRELL E. COSTA, STEVEN ROSENBLUM Tues 3:15; STEV 3072
 Demagogues in Our Midst: Critically Assessing
 Demagogic "Talk" in Our Political, Religious and
 Entertainment Leaders (From Limbaugh,
 Gingrich and Robertson to Jackson, Perot,
 Farrakhan and Kahane, to You and I) *LANG, POL, INF
 LOGIC, COLL*
- BERNARD DAVIS Wed 8:45; STEV 3040
 Informal Logic and the Problem of Factual
 Belief *COLL, INF LOGIC, ADV, TACTIC/STRAT*
- RALPH H. JOHNSON Wed 10:30; STEV 3072
 The Principle of Vulnerability *ADV, INF LOGIC, COLL*
- EDWARD L. MCGUIRE Wed 10:30; STEV 3049
 Reflective Logic and Third-Wave Critical
 Thinking *INF LOGIC, COLL, TACTIC/STRAT/MID/HIGH, COLL, TEST,
 TACTIC/STRAT*

K-12

- G. DOUGLAS MEYERS Sun 10:30-11:10; IVES 119
 (Mini-Session) Achieving Poetic Consciousness:
 Found Poetry/Poetry Found *LANG, INF LOGIC, K-12*
- BEN E. JOHNSON Mon 3:15; WARREN
 How We Did It: Sarasota's Unique Plan for
 Motivating and Training 2000 Thinking Skills
 Teachers *K-12, STAFF DEV, BEG, ADV*
- RICHARD POPE Mon 3:15; STEV 1002
 Total Quality Management Comes to the
 Thinking Classroom *K-12, STAFF DEV, LANG, TACTIC/STRAT*
- WILLIAM J. STEPIEN, SHELAGH A. GALLAGHER . Mon 3:15; STEV 2065
 Thinking Is More Than "Bumper Sticker"
 Reasoning *TACTIC/STRAT, BEG, K-12*
- JUDITH COLLISON Tues 10:30; STEV 3008
 How to Write and Evaluate Open-ended
 Questions in Mathematics *TEST, MATH, K-12*
- JAN WILLIAMSON, RENATE OTTERBACH, H. OGDEN MORSE, JANE
 DAVIS-SEAVER, DAN BURRITT, WILLIAM STEPIEN, JUDITH COLLISON
 Tues 3:15; SU 100
 Panel Discussion of Critical Thinking in the K-
 12th Grade Curriculum *K-12*
- DAN BURRITT Wed 8:45; DAR 122
 Using Reciprocity: Mutual Exchange of
 Information in Solving Tasks or Problems *K-12,
 TACTIC/STRAT*

LANGUAGE ARTS, ENGLISH

- VICKY GARCIA, NATASHA HAUGNES Sun 10:30; STEV 3049
 Training ESL and Native English Speakers for
 Critical Peer Reading *LANG, TACTIC/STRAT, COLL*
- NORMAN BETZ Sun 10:30; DAR 122
 The Myers-Briggs and the Process Toward
 Critical Thinking *COLL, TACTIC/STRAT, LANG, TEST*
- G. DOUGLAS MEYERS Sun 10:30-11:10; IVES 119
 (Mini-Session) Achieving Poetic Consciousness:
 Found Poetry/Poetry Found *LANG, INF LOGIC, K-12*
- RICHARD SANZENBACHER Sun 2:20-3:00; IVES 119
 (Mini-Session) Working with Imagery from a
 Semiotic Perspective *TACTIC/STRAT, LANG, MID/HIGH, COLL*

LANGUAGE ARTS, ENGLISH

Continued

- EDNA MAYE LOVELESS Sun 3:15; STEV 3049
Fuzzy Thinking Produces Fuzzy Writing: An Alert for Precise Language *COLL, LANG, TACTIC/STRAT*
- HERMAN HALUZA Mon 10:30; STEV 3049
Literature and the Writing Curriculum *COLL, ARTS, TACTIC/STRAT*
- ROBERT G. BUCKENMEYER Mon 1:30; STEV 3040
Traditional Critical Thinking and the American English Language and "Culture" *COLL, STAFF DEV, LANG, INF LOGIC*
- RON BOHANNON Mon 3:15; IVES 34
A Critical Study of H.L. Mencken's Dialectic Irony in *In Defense of Women* *BEG, ADV, LANG, TACTIC/STRAT*
- KRISTAN CAVINA Mon 3:15; DAR 122
Teaching Critical Thinking in the Writing Class *LANG, TACTIC/STRAT, COLL*
- H. OGDEN MORSE Tues 10:30; STEV 3072
Literature, History, and What We Believe *MID/HIGH, TACTIC/STRAT, LANG, SOCIOLMID/HIGH, SOC STUD*
- RENÉE RUDERMAN Tues 1:30; DAR 122
The Beat, the Word, the Feeling! Using the Techniques of Poetry to Generate Critical Thinking and Writing *LANG, ARTS, MID/HIGH, COLL, BEG, TACTIC/STRAT*
- JARED HAYNES Tues 3:15; STEV 3008
Designing Writing Assignments that Foster Critical Thinking *COLL, BEG, TACTIC/STRAT*

MATH

- CONNIE MISSIMER Sun 3:15; STEV 3072
The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence *ADV, MATH/SCI, FEM, INF LOGIC*
- ROBERT D. ALLEN, DAVID J. STROUP Mon 10:30; STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics *MATH/SCI, TACTIC/STRAT, HEALTH, NURS*
- DAN BURRITT Mon 10:30; DAR 122
Creating Math Islands with the Thinking Skills Format *TACTIC/STRAT, K-12, BEG, MATH*

- GEORGE COLLISON Mon 10:30; STEV 1040
Empowering Teachers to Teach Using Inquiry in Algebra and Pre-Algebra *MATH, MID/HIGH, COLL*
- GEORGE COLLISON Mon 3:15; STEV 1040
Linking Understanding in Math and Science Through Argument and Discussion in the Language of Functions and Graphs *MATH/SCI, MID/HIGH, COLL, COMP AID*
- JUDITH COLLISON Tues 10:30; STEV 3008
How to Write and Evaluate Open-ended Questions in Mathematics *TEST, MATH, K-12*
- DANIEL C. ABEL, ROBERT L. MCCONNELL Tues 1:30; IVES 35
Understanding Environmental Issues Using Critical Thinking, Simple Math, and the Metric System *ENV, MATH/SCI, COLL, MID/HIGH*
- V. SHVYRKOV Tues 1:30; STEV 3049
Principles of Critical Thinking in Statistical Science *TEST, BUS, MATH/SCI, TACTIC/STRAT*
- ROBERT D. ALLEN, DAVID J. STROUP Tues 3:15; STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics *MATH/SCI, TACTIC/STRAT, HEALTH, NURS*
- JUDITH COLLISON Wed 10:30; STEV 3008
The Role of Critical Thinking in Mathematics Education Reform *MATH, STAFF DEV, K-12*
- BURTON VOORHEES Wed 10:30; STEV 2049
Could a Computer Ever Think—Critically or Otherwise? *MATH/SCI, ADV, INF LOGIC*

MEDIA

- ERIC E. MILLER Sun 1:30; STEV 3046
Advertising *MID/HIGH, BEG, LANG*
- WILLIAM A. DORMAN, DONALD LAZERE, JONAH RASKIN, NORMON SOLOMON, MARK LOWENTHAL Sun 3:15; SU 100
Mass Media and the American Conversation: Perspectives on Power and Culture *MID/HIGH, COLL, MEDIA*
- DONALD LAZERE Mon 10:30; DAR 108
Reading Rush Limbaugh Critically *COLL, MID/HIGH, MEDIA, POL*
- DOUG BRENNER Mon 10:30; STEV 3040
Developing Video Literacy/Critical Thinking Skills *MEDIA, COLL, BEG, HIGH*

MEDIA

Continued

- WILLIAM A. DORMAN, RALPH JOHNSON Mon 1:30; STEV 3008
Mass Media and Critical Thinking: Part I *COLL, MEDIA*
- WILLIAM A. DORMAN, RALPH JOHNSON Mon 3:15; STEV 3008
Mass Media and Critical Thinking: Part II *COLL, MEDIA*
- JONAH RASKIN Tues 1:30; STEV 3008
Joseph McCarthy, Television, and the Limits of
Critical Thinking *MEDIA, POL, SOC STUD, H CON*
- CLAUDE GRATTON Tues 1:30-2:10; IVES 119
(Mini-Session) A Game of Posing Critical
Questions While Watching Television *INF LOGIC, GEN*
- PRISCILLA AGNEW Tues 3:15; DAR 122
Sex, Death, Advertising and Children: Teaching
Media Literacy *MEDIA, INF LOGIC, TACTIC/STRAT, H CON*
- GREGORY BASSHAM, HENRY NARDONE Tues 3:15; STEV 3046
Using the Film "JFK" to Teach Critical Thinking
TACTIC/STRAT, POL, MEDIA, SOC STUD

MIDDLE/HIGH SCHOOL

- M. NEIL BROWNE Sun 3:15; WARREN
Potential Trouble Spots that Bedevil Critical
Thinking Classrooms (Participatory Workshop)
TACTIC/STRAT, COLL, MID/HIGH
- VIRGINIA O'KEEFE Sun 3:15; ART 108
Teaching for Discovery: The Questioning Class
MID/HIGH, COLL, LANG
- H. OGDEN MORSE Sun 4:05-4:45; IVES 119
(Mini-Session) The Dialectical Notebook *MID/HIGH, SOC STUD*
- JEANETTE K. MUSER, JULIA E. NORATO, LAWRENCE E. SWESEY
. Mon 10:30-11:10; IVES 119
(Mini-Session) Teaching Critical Thinking *MID/HIGH*
- KATHLEEN HERSCHELMANN Mon 11:20-12:00; IVES 119
(Mini-Session) Writing Modules Using Critical
Thinking as a Base *MID/HIGH, COLL*
- JANE WILLEN LORAND Mon 3:15; ART 108
Self-Assessment at the High School and College
Level: Peer Editing, Group and Individual
Assessment in Speaking and Writing *MID/HIGH, COLL, STAFF DEV*

- VICKEY DALEY, SYLVIA BIERSCHENK Tues 10:30; STEV 3049
What do You See? What do You Know? *MID/HIGH, BEG, TACTIC/STRAT, LANG*
- JEFF REED Tues 10:30-11:10; IVES 119
(Mini-Session) Leading Socratic Discussions in
History Classes *MID/HIGH, COLL*
- JANE WILLEN LORAND Tues 1:30; DAR 108
How Do I Know if My Thinking is Good
Thinking? Teaching Intellectual Standards to
Middle School and High School Students.
MID/HIGH, STAFF DEV
- MICHAEL A. GRIFFIN Tues 1:30; STEV 3040
Critical Thinking: A Practical Guide *ADV, MID/HIGH, COLL*
- DONALD JOHNS Wed 8:45-9:25; IVES 119
(Mini-Session) Identifying Central Passages in
Essays or Stories *MID/HIGH, COLL*
- BRANT ABRAHAMSON Wed 10:30; STEV 3046
Using Critical Thinking to Understand
Prejudice: A Workshop - Demonstration
MID/HIGH, TACTIC/STRAT, SOC STUD, H CON

MINI-SESSIONS

- G. DOUGLAS MEYERS Sun 10:30-11:10; IVES 119
(Mini-Session) Achieving Poetic Consciousness:
Found Poetry/Poetry Found *LANG, INF LOGIC, K-12*
- JEFF REED Sun 10:30-11:10; IVES 119
(Mini-Session) Using Assessment Rubrics for
Critical Thinking *MID/HIGH, COLL*
- EDWARD L. MCGUIRE Sun 11:20-12:00; IVES 119
(Mini-Session) Advantages of a Technical
Assistant for a Critical Thinking Program
MID/HIGH, COLL, TEST, TACTIC/STRAT
- DAVID ZWICKER Sun 11:20-12:00; IVES 119
(Mini-Session) SAVVY & SAFE: A Critical Thinking
Approach to Self-Defense *STAFF DEV, BEG, PSYCH, HEALTH*
- JARED HAYNES Sun 1:30-2:10; IVES 119
(Mini-Session) Commenting on Student Writing
HIGH, COLL
- RICHARD SANZENBACHER Sun 2:20-3:00; IVES 119
(Mini-Session) Working with Imagery from a
Semiotic Perspective *TACTIC/STRAT, LANG, MID/HIGH, COLL*

MINI-SESSIONS

Continued

- JANE DAVIS-SEAVER Sun 3:15-3:55; IVES 119
(Mini-Session) Portfolios for Critical Thinking
 ELEM
- H. OGDEN MORSE Sun 4:05-4:45; IVES 119
(Mini-Session) The Dialectical Notebook MID/HIGH,
 SOC STUD
- JEANETTE K. MUSER, JULIA E. NORATO, LAWRENCE E. SWESEY
 Mon 10:30-11:10; IVES 119
(Mini-Session) Teaching Critical Thinking MID/HIGH
- JARED HAYNES Mon 10:30-11:10; IVES 119
*(Mini-Session) The Exploratory Paper: Prelude to
 Argument* COLL
- KATHLEEN HERSCHELMANN Mon 11:20-12:00; IVES 119
*(Mini-Session) Writing Modules Using Critical
 Thinking as a Base* MID/HIGH, COLL
- T. EDWARD DAMER Mon 11:20-12:00; IVES 119
(Mini-Session) Concept of Rebuttal INF LOGIC, GEN
- JAN WILLIAMSON Mon 1:30-2:10; IVES 119
*(Mini-Session) Writing and Critical Thinking:
 Action Research at One College* COLL
- JEFFERY, R.W. DONLEY Mon 2:20-3:00; IVES 119
(Mini-Session) The Hermeneutical Worksheet
 COLL
- JON PAPPAS Mon 3:15-3:55; IVES 119
*(Mini-Session) The Oral Test for the Mastery of
 Basic Concepts* TACTIC/STRAT, TEST, BEG
- T. EDWARD DAMER Mon 4:05-4:45; IVES 119
(Mini-Session) Concept of Fallibility BEG, COLL,
 MID/HIGH, H CON
- JEFF REED Tues 10:30-11:10; IVES 119
*(Mini-Session) Leading Socratic Discussions in
 History Classes* MID/HIGH, COLL
- WILLIAM L. HOOPER Tues 10:30-11:10; IVES 119
(Mini-Session) Thinking About Paintings COLL, ARTS
- P.J. JANSON Tues 11:20-12:00; IVES 119
*(Mini-Session) Critical Thinking in Music History
 Courses* COL, BEG, ARTS
- TISH ALLEN Tues 11:20-12:00; IVES 119
*(Mini-Session) Student Initiated Study of
 Assumptions* COLL, TEST, TACTIC/STRAT

- CLAUDE GRATTON Tues 1:30-2:10; IVES 119
*(Mini-Session) A Game of Posing Critical
 Questions While Watching Television* INF LOGIC,
 GEN
- LINDA Q. SMITH Tues 2:20-3:00; IVES 119
*(Mini-Session) Teaching Critical Thinking
 Through Chess* K-12, BEG, TACTIC/STRAT, INF LOGIC
- MARIAN B. SIDES Tues 3:15-3:55; IVES 119
*(Mini-Session) Analyzing Assumptions
 Underlying Critical Thoughts* TACTIC/STRAT, NURS, STAFF
 DEV, HEALTH, COLL
- SHIRLEY TAN, LIM TOCK KENG Tues 4:05-4:45; IVES 119
*(Mini-Session) The Community of Inquiry
 Approach to Critical Thinking* BEG, MID/HIGH, MUL-
 CULT, TACTIC/STRAT
- DONALD JOHNS Wed 8:45-9:25; IVES 119
*(Mini-Session) Identifying Central Passages in
 Essays or Stories* MID/HIGH, COLL
- KRISTAN CAVINA Wed 8:45-9:25; IVES 119
*(Mini-Session) Teaching Grammar Through
 Critical Thinking* MID/HIGH, COLL
- BRENDA CHEREDNICHENKO Wed 9:35-10:15; IVES 119
(Mini-Session) Confident Critical Thinkers GEN J
- ROSE AGUILAR WELCH, KATHLEEN F. O'CONNOR, MARY J. CRUISE .
 Wed 9:35-10:15; IVES 119
*(Mini-Session) Critical Thinking: Getting There
 with Fun and Games* COLL, TACTIC/STRAT
- VICKEY DALEY, SYLVIA BIERSCHENK Wed 10:30-11:10; IVES 119
*(Mini-Session) Real-World Focus: The Practical
 Art of Reasoning* MID/HIGH, COLL

MULTI-CULTURAL

- YEHUDI O. WEBSTER Sun 10:30; DAR 108
*Are There White and Black People? Reasoning
 About Racial Classification* GEN, SOC STUD, MUL-CULT
- YEHUDI O. WEBSTER Sun 3:15; DAR 108
*Multi-Culturalism and Critical Thinking:
 Compatibility or Competition?* GEN, MUL-CULT
- GIUSEPPE AMEDEO GALVAN Mon 10:30; IVES 35
*Logic and Contents of the Common Sense
 (Sensus Communis) as a Solution of the Problems
 of a Multi-Cultural Society* COLL, TACTIC/STRAT, PSYCH,
 INF LOGIC

MULTI-CULTURAL

Continued

- YEHUDI O. WEBSTER Mon 1:30; DAR 108
**Are There White and Black People? Reasoning
 About Racial Classification** *GEN, SOC STUD, MUL-CULT*
- GEDEON J. ROSSOUW, J. COLEY LAMPRECHT . . . Mon 1:30; STEV 1002
**The IIT Approach to the Development of
 Thinking and its Multi-Cultural Application in
 South Africa** *TACTIC/STRAT, COLL, STAFF DEV, MUL-CULT*
- CONNIE MISSIMER Mon 1:30; IVES 35
**How to Teach Critical Thinking in a Way That is
 Not Culturally Biased Without Sacrificing High
 Evidentiary Standards** *MID/HIGH, COLL, MUL-CULT*
- CHARLES ANGELETTI Tues 10:30; STEV 3040
**The American Road as Metaphor: Exploring the
 Voices of Those "On the Road" in America to
 Teach Critical Thinking** *MID/HIGH, COLL, MUL-CULT, SOC
 STUD*
- LEE BROWN Tues 1:30; IVES 34
**Materials, Methods, and Strategies for Teaching
 Critical Thinking to the Educationally
 Disadvantaged-to Students at Risk** *MID/HIGH, COLL,
 MUL-CULT, TACTIC/STRAT, BEG*
- KIM SKOOG Tues 3:15; STEV 3049
A Multicultural/Critical Thinking Reader *ELEM,
 MUL-CULT, ARTS, SOC STUD*
- WILLIA L. NWA Wed 8:45; STEV 2049
**Thinking Critically About Cultural Diversity:
 How Should Educators Do It?** *MID/HIGH, COLL, BEG,
 MUL-CULT, H CON*
- KIM SKOOG Wed 10:30; DAR 139
A Pluralistic Model of Knowledge *ADV, PSYCH,
 MUL-CULT, SOCIO*
- SHIRLEY TAN, LIM TOCK KENG Tues 4:05-4:45; IVES 119
**(Mini-Session) The Community of Inquiry
 Approach to Critical Thinking** *BEG, MID/HIGH, MUL-
 CULT, TACTIC/STRAT*

PSYCHOLOGY

- DAVID ZWICKER Sun 11:20-12:00; IVES 119
**(Mini-Session) SAVVY & SAFE: A Critical Thinking
 Approach to Self-Defense** *STAFF DEV, BEG, PSYCH, HEALTH*

- DIXON WRAGG Sun 1:30; DAR 112
**Nonrational Determinants of Thinking, and
 Implications for Critical Thinking Pedagogy**
PSYCH, SOCIO, MUL-CULT, BEG
- WEBSTER E. COTTON Sun 1:30; DAR 122
**Thinking, Education and the Human Project:
 The Contrasting Perspectives of Socrates,
 Dewey and Heidegger** *COLL, PSYCH, TACTIC/STRAT, SOCIO*
- JACKIE A. GIULIANO Sun 3:15; DAR 139
**Challenging our Perception of our World:
 Merging Ecology and Psychology into
 "Ecopsychology"** *PSYCH, ENV, MUL-CULT, SOCIO*
- TOBY KLINGER Mon 10:30; DAR 112
**Integrating Critical Thinking into the Teaching
 of Introduction to Psychology** *COLL, BEG, INF LOGIC,
 PSYCH, TACTIC/STRAT*
- WILLIAM B. STREAN, RUSS LINDGREN Mon 1:30; DAR 112
**Critical Thinking About Sport/ Critical Thinking
 Within Sport** *GEN, PSYCH, BEG, MEDIA, H CON*
- P.K. MOHAPATRA Tues 10:30; STEV 2006
**Critical Thinking and the Problem of Personal
 Identity** *ADV, PSYCH, LANG, TACTIC/STRAT*
- EDWARD B. RIPPY Tues 10:30; DAR 112
**Critical Thinking, Fear of Freedom, and
 Authoritarianism** *PSYCH, H CON, TACTIC/STRAT, BEG*
- KAREN RANKIN, CAROL WILSON Tues 10:30; DAR 122
**The Fortune Cookie Syndrome: Self-disclosure
 as a Teaching/Learning Strategy for Critical
 Thinking** *NURS, SOCIO, PSYCH, FEM*
- SHERRI MCCARTHY-TUCKER, PH. D. Tues 1:30; DAR 139
**Teaching Reality-Based Formal Logic to
 Adolescents to Improve Critical Thinking Skills**
PSYCH, TACTIC/STRAT, INF LOGIC, GEN
- GIUSEPPE AMEDEO GALVAN Tues 3:15; ART 108
**Love Belongs to the Essence of Wisdom?
 Reflections about the Practical Dimension of
 Critical Thinking** *COLL, TACTIC/STRAT, PSYCH, INF LOGIC*
- FREDERIC TÖRZS Wed 10:30; DAR 122
**Rational Choice and Strong-Sense Critical
 Thinking** *H CON, PSYCH, COLL, INF LOGIC*

SCIENCE

- CONNIE MISSIMER Sun 3:15; STEV 3072
The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence *ADV, MATH/SCI, FEM, INF LOGIC*
- ROBERT D. ALLEN, DAVID J. STROUP Mon 10:30; STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics *MATH/SCI, TACTIC/STRAT, HEALTH, NURS*
- GEORGE COLLISON Mon 3:15; STEV 1040
Linking Understanding in Math and Science Through Argument and Discussion in the Language of Functions and Graphs *MATH/SCI, MID/HIGH, COLL, COMP AID*
- MAX DRESDEN Tues 10:30; DAR 139
The Notion of Proofs and Evidence *SCI, COLL, ADV*
- ERIC E. MILLER Tues 10:30; STEV 3076
The Law of Conservation of Mass and Inductive Reasoning *ELEM, BEG, SCI*
- JOANN RADDUE, GEORGE RADDUE Tues 10:30; STEV 2065
Critical Thinking Smorgasbord: Showcase of Project-Based Learning Activities *ELEM, STAFF DEV, SCI, ENV*
- V. SHVYRKOV Tues 1:30; STEV 3049
Principles of Critical Thinking in Statistical Science *TEST, BUS, MATH/SCI, TACTIC/STRAT*
- ERIC E. MILLER Tues 1:30; STEV 3076
Consumer Science *ELEM, BEG, SCI*
- GEORGE RADDUE, JOANN RADDUE Tues 1:30; STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*
- ROBERT D. ALLEN, DAVID J. STROUP Tues 3:15; STEV 1002
Teaching Critical Thinking Skills in Science and Mathematics *MATH/SCI, TACTIC/STRAT, HEALTH, NURS*
- GEORGE RADDUE, JOANN RADDUE Tues 3:15; STEV 2065
Project-Based Learning: Making Microscopes (A Two-Part Session) *ELEM, STAFF DEV, SCI, ENV*
- BURTON VOORHEES Wed 10:30; STEV 2049
Could a Computer Ever Think—Critically or Otherwise? *MATH/SCI, ADV, INF LOGIC*

SOCIOLOGY/SOCIAL STUDIES

- DIXON WRAGG Sun 1:30; DAR 112
Nonrational Determinants of Thinking, and Implications for Critical Thinking Pedagogy *PSYCH, SOCIO, MUL-CULT, BEG*
- BRENDA CHEREDNICHENKO Mon 1:30; IVES 34
The Geographical Location of the Teaching of Thinking Skills Programs *ELEM, SOCIO*
- CHARLES ANGELETTI Tues 10:30; STEV 3040
The American Road as Metaphor: Exploring the Voices of Those "On the Road" in America to Teach Critical Thinking *MID/HIGH, COLL, MUL-CULT, SOC STUD*
- LES GOTTESMAN Tues 3:15; STEV 3040
What is Hermeneutics and is it Critical? *COLL, POL, LANG, SOCIO*

STAFF DEVELOPMENT

- HARRY T. MAYO, PAUL DUAX, GAIL HUGHES, VIRGINIA O'KEEFE, JOAN RYKIEL, MICHAEL MONK Sun 10:30; SU 100
What are We Doing With Critical Thinking in the Community College System and Where are We Headed With It in the Classroom? A Panel Discussion Moderated by Harry Mayo *STAFF DEV, TACTIC/STRAT, BEG, COLL*
- JEFFERY R.W. DONLEY Sun 10:30; STEV 3008
Surfing the Third Wave: Integrating Critical Thinking and Interdisciplinary Studies for the 21st Century *COLL, STAFF DEV, MUL-CULT, ADV*
- WILLIAM H. MAURER, PATRICIA A. MAURER Sun 10:30; IVES 34
Moving From "I Think I Can!" to "I Can Think!": Changing Attitudes and Actions of Elementary Grade Teachers *ELEM, BEG, STAFF DEV, TACTIC/STRAT*
- BEN E. JOHNSON Mon 10:30; WARREN
No Longer Preaching to the Choir: "SARASOTA THINKS," the Nation's First, Week-long, County-wide Thinking Festival Designed for the Public *STAFF DEV, BEG, ADV*

STAFF DEVELOPMENT

Continued

- T. FRANK SAUNDERS, AMY SCHLESSMAN Mon 10:30; STEV 2006
**Double Think: Restructuring Content, Context,
 and Purposes for 21st Century Thinking** STAFF DEV,
 GEN
- GEDEON J. ROSSOUW, J. COLEY LAMPRECHT . . . Mon 1:30; STEV 1002
**The IIT Approach to the Development of
 Thinking and its Multi-Cultural Application in
 South Africa** TACTIC/STRAT, COLL, STAFF DEV, MUL-CULT
- BEN E. JOHNSON Mon 3:15; WARREN
**How We Did It: Sarasota's Unique Plan for
 Motivating and Training 2000 Thinking Skills
 Teachers** K-12, STAFF DEV, BEG, ADV
- WENDY OXMAN Tues 10:30; STEV 2049
**Elementary Teachers' Perceptions of Critical
 Thinking in Theory and Practice** ELEM, STAFF DEV,
 TACTIC/STRAT
- JAMES O'CONNOR Tues 10:30; ART 108
**A Renewal Seminar: The Role of Critical
 Thinking in Your Life** TACTIC/STRAT, STAFF DEV, SOC STUD,
 H CON
- GAIL HUGHES, MARGARET BORDEN, SANDRA KAPLAN, JUDY NELSON
 Tues 10:30; IVES 34
**Conducting and Assessing Critical Thinking
 Interviews: Excerpts from Interdisciplinary
 Areas, Developmental Education, and Biology**
 TEST, COLL, STAFF DEV, INF LOGIC
- BEN E. JOHNSON Tues 1:30; WARREN
**A Successful Private Funding Model for District-
 Wide Teacher Training in Thinking Skills:
 Sarasota County and the Selby Chair in Critical
 Thinking** K-12, COLL, BEG, ADV
- JANE WILLSEN LORAND Tues 1:30; DAR 108
**How Do I Know if My Thinking is Good
 Thinking? Teaching Intellectual Standards to
 Middle School and High School Students**
 MID/HIGH, STAFF DEV
- RICHARD PAUL Wed 8:45; SU 100
What Is It to Join the Third Wave? GEN
- ROBERT L. MCCONNELL, DANIEL C. ABEL Wed 8:45; STEV 2006
**Critical Assessment of College Student Course
 Reaction Questionnaires** STAFF DEV, TEST, TACTIC/STRAT,
 COLL

- PENNY HEASLIP Wed 10:30; DAR 108
**Paradigm Shift in Nursing Education:
 Curriculum Reform in Action** COLL, FEM, STAFF DEV,
 NURS
- RICHARD PAUL Wed 10:30; SU 100
How To Recognize Pseudo Critical Thinking GEN
- JUDITH COLLISON Wed 10:30; STEV 3008
**The Role of Critical Thinking in Mathematics
 Education Reform** MATH, STAFF DEV, K-12
- JEFF REED Wed 10:30; STEV 2006
Illustrations and the Information Age STAFF DEV,
 MID, TEST, COMP AID

TACTICS/STRATEGIES

- LESLIE K. HICKCOX Sun 10:30; ART 108
**Developing Problem-Solving Skills through
 Kolb's Experiential Learning Cycle** COLL,
 TACTIC/STRAT, BEG, SCI
- MARGARET ANDERSON, VICTORIA ALLEN Sun 10:30; IVES 35
Socratic Seminars TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG
- CLAUDE GRATTON Sun 10:30; DAR 112
**Critical Thinking's Contribution To
 Psychological Health** TACTIC/STRAT, INF LOGIC, COLL,
 MID/HIGH
- VICKY GARCIA, NATASHA HAUGNES Sun 10:30; STEV 3049
**Training ESL and Native English Speakers for
 Critical Peer Reading** LANG, TACTIC/STRAT, COLL
- J.E. (PETER) PETERS Sun 10:30; STEV 3046
**The Student Lecture Review: Critical Feedback
 on Standards and Expectations** COLL, TACTIC/STRAT,
 MID/HIGH
- M. NEIL BROWNE, STUART M. KEELEY Sun 1:30; WARREN
**Lessons Learned from Two Decades of Teaching
 Critical Thinking** TACTIC/STRAT, COLL, BEG, SOC STUD
- MARGARET ANDERSON, VICTORIA ALLEN Sun 1:30; IVES 35
Socratic Seminars TACTIC/STRAT, STAFF DEV, MID/HIGH, BEG
- CHERRIE L. KASSEM Sun 1:30; STEV 3049
**Critical Thinking and Early Childhood
 Education: Design for a Master's Level Course
 on Critical Thinking and Creativity in the
 Classroom** ELEM, COLL, TACTIC/STRAT
- JARED HAYNES Sun 1:30-2:10; IVES 119
(Mini-Session) Commenting on Student Writing
 HIGH, COLL

TACTICS/STRATEGIES

Continued

- M. NEIL BROWNE Sun 3:15; WARREN
Potential Trouble Spots that Bedevil Critical Thinking Classrooms(Participatory Workshop)
TACTIC/STRAT, COLL, MID/HIGH
- DONALD JOHNS Sun 3:15; DAR 112
Literature, Empathy, and Critical Thinking
TACTIC/STRAT, COLL, MID/HIGH, MUL-CULT/MID/HIGH, COLL
- LARRY LITECKY Sun 3:15; STEV 3046
Active Learning and Improving the Quality of Thinking *TACTIC/STRAT, COLL, STAFF DEV*
- RICHARD PAUL Mon 10:30; SU 100
Socratic Questioning: A Series of Three Demonstration Sessions. First Demonstration (Asking Questions That Take Thinking Apart)
TACTIC/STRAT, BEG
- DAN BURRITT Mon 10:30; DAR 122
Creating Math Islands with the Thinking Skills Format *TACTIC/STRAT, K-12, BEG, MATH*
- RICHARD B. LEWIS Mon 10:30; STEV 2065
Critical Thinking: Classroom Procedures, Format, Grading, etc. Part 1 *COLL, TACTIC/STRAT, MATH*
- RICHARD PAUL Mon 1:30; SU 100
Socratic Questioning (Second Demonstration Session): Asking Questions That Assess Thinking Based on Intellectual Standards *TACTIC/STRAT, BEG*
- RICHARD B. LEWIS Mon 1:30; STEV 2065
Critical Thinking: Classroom Procedures, Format, Grading, etc. Part 2 *COLL, TACTIC/STRAT, MATH*
- RICHARD PAUL Mon 3:15; SU 100
Socratic Questioning (Third Demonstration Session): Asking Questions Based on Systems and Domains *TACTIC/STRAT, BEG*
- JACKIE A. GIULIANO Mon 3:15; IVES 35
The Development of Social Responsibility and Environmental Awareness Through Techniques in Critical Teaching - A Community Involvement Approach *TACTIC/STRAT, ENV, POL, BEG*
- LYNN R. CHONG Mon 3:15; STEV 3040
How Do You Know Your Evidence Is True? *HIGH, COLL, TACTIC/STRAT*

- JON PAPPAS Mon 3:15-3:55; IVES 119
(Mini-Session) The Oral Test for the Mastery of Basic Concepts *TACTIC/STRAT, TEST, BEG*
- JERRY CEDERBLOM Tues 10:30; STEV 3046
The Critical Reasoner As Protagonist *INF LOGIC, TACTIC/STRAT, COLL*
- LINDA ELDER Tues 1:30; CAR 68
Struggling Against Egocentrism: My Personal Journey *GEN, TACTIC/STRAT*
- PHYLLIS L. SIMPSON Tues 1:30; DAR 112
MINDS: Architectural Supplies for the Instructional Designer *COLL, MID/HIGH, LANG, TACTIC/STRAT*
- LEE BROWN Tues 1:30; IVES 34
Materials, Methods, and Strategies for Teaching Critical Thinking to the Educationally Disadvantaged-to Students at Risk *MID/HIGH, COLL, MUL-CULT, TACTIC/STRAT, BEG*
- PAUL TANNER Tues 3:15; DAR 139
Audio Tape as a Feedback Tool: Increased Transfer of Critical Thinking Skills *TACTIC/STRAT, TEST, COLL, MID/HIGH*
- GREGORY BASSHAM, HENRY NARDONE Tues 3:15; STEV 3046
Using the Film "JFK" to Teach Critical Thinking
TACTIC/STRAT, POL, MEDIA, SOC STUD
- GEORGE M. LUCKEY JR. Wed 8:45; STEV 1002
Common Slogans and Uncommon Sense
TACTIC/STRAT, MID/HIGH, COLL
- JIM POLLARD Wed 8:45; DAR 139
Finding Meaning-The Search for Logic
TACTIC/STRAT, GEN
- DAN BURRITT Wed 8:45; DAR 122
Using Reciprocity: Mutual Exchange of Information in Solving Tasks or Problems *K-12, TACTIC/STRAT*
- RENATE OTTERBACH Wed 8:45; STEV 2065
Teaching Critical Thinking Inductively
TACTIC/STRAT, STAFF DEV, MID/HIGH, COLL
- ROSE AGUILAR WELCH, KATHLEEN F. Wed 9:35-10:15; IVES 119
O'CONNOR, MARY J. CRUISE (Mini-Session) Critical Thinking: Getting There with Fun and Games *COLL, TACTIC/STRAT*
- LINDA ELDER Wed 10:30; CAR 68
Critical Thinking and the Young Child *ELEM, TACTIC/STRAT*

TESTING AND ASSESSMENT

- NORMAN BETZ Sun 10:30; DAR 122
**The Myers-Briggs and the Process Toward
 Critical Thinking** *COLL, TACTIC/STRAT, LANG, TEST*
- JAN WILLIAMSON Sun 1:30; STEV 3008
**Alternative Assessment: Enhancing and
 Monitoring Student Thinking** *TEST, GEN, COLL*
- JOAN D. RYKIEL Mon 10:30; DAR 139
**The Community College Experience: Is There an
 Effect on Critical Thinking and Moral
 Reasoning?** *PSYCH, COLL, TEST, TACTIC/STRAT*
- JOE M. STEELE Mon 1:30; DAR 139
**Tasks for Critical Thinking: When is a Problem
 Just an Exercise?** *TACTIC/STRAT, TEST, COLL, STAFF DEV*
- ANTHONY OLUWATOYIN Mon 3:15; DAR 112
Questions, Eccentrics and Critical Thinking *TEST,
 GEN*
- GAIL HUGHES, MARGARET BORDEN, SANDRA KAPLAN, JUDY NELSON
 Tues 10:30; IVES 34
**Conducting and Assessing Critical Thinking
 Interviews: Excerpts from Interdisciplinary
 Areas, Developmental Education, and Biology**
TEST, COLL, STAFF DEV, INF LOGIC
- DONALD HATCHER, LUCY PRICE Tues 1:30; ART 108
**Combining Critical Thinking and Written
 Composition: The Whole is Greater Than the
 Sum of the Parts** *COLL, STAFF DEV, TEST*
- TISH ALLEN Wed 8:45; IVES 34
Toward Strong Self-Assessment Skills *COLL, TEST*
- JEFF REED Wed 10:30; STEV 2006
Illustrations and the Information Age *STAFF DEV,
 MID, TEST, COMP AID*
- RUBY TROW, MARILYNN FILBECK Wed 10:30; DAR 112
**Jigsaw: A Collaborative Strategy for Teaching
 Critical Thinking** *TEST, TACTIC/STRAT, COLL, BEG*
- JON PAPPAS Mon 3:15-3:55; IVES 119
**(Mini-Session) The Oral Test for the Mastery of
 Basic Concepts** *TACTIC/STRAT, TEST, BEG*
- JEFF REED Sun 10:30-11:10; IVES 119
**(Mini-Session) Using Assessment Rubrics for
 Critical Thinking** *MID/HIGH, COLL*

CONFERENCE ABSTRACTS

ABEL, DANIEL C.

TUES 1:30; IVES 35

Instructor of Marine Science, Coastal Carolina University

ROBERT L. MCCONNELL

*Professor, Environmental Science and Geology, Mary Washington College***Understanding Environmental Issues Using Critical Thinking, Simple
 Math, and the Metric System** *ENV, MATH/SCI, COLL, MID/HIGH*

Students are often unable to evaluate conflicting claims about environmental issues critically and make informed judgments. As a result, they may rely on others for opinions, in the process abandoning any higher intellectual processes. Part of the problem is an uncertainty about using numerical data and an inability to make even rudimentary calculations, which they lack confidence in once completed. We have addressed these problems by designing a new set of exercises, some of which we will distribute, about relevant environmental issues, including air and water pollution; energy, resources, and living standards; and population. We will demonstrate how we use these to get students to think critically about environmental issues in an active-learning setting.

ABRAHAMSON, BRANT

WED 10:30; STEV 3046

*President - The Teachers' Press, The Teachers' Press***Using Critical Thinking to Understand Prejudice: A Workshop -
 Demonstration** *MID/HIGH, TACTIC/STRAT, SOC STUD, H CON*

Following a brief historical introduction, participants learn how informal logic (simple fallacy study) provides the foundation for a non-tracked, low cost public school critical thinking program that includes a focus on prejudice reduction. Attendees will receive essential information on the foundation fallacy unit as well as the "Prejudice in Group Relations" unit. In addition, they have an opportunity to complete one key activity from each of these three-week courses of study.

ABRAHAMSON, BRANT

President - The Teachers' Press, The Teachers' Press

WED 8:45; STEV 3046

Teaching About Religion from an Empathetic but Critical Thinking Perspective HIGH

I will focus upon comparing and contrasting Eastern World Religions (Hinduism and Buddhism primarily) with those of the West (Judaism, Christianity, Islam and their offshoots).

After a summary of Eastern and Western religious orientations, I will distribute a unit relating the two belief systems. Then I will describe more specifically how we teach about religion from a critical thinking perspective at Riverside-Brookfield High School that is located in a rather fundamentalist area.

AGNEW, PRISCILLA

Professor of Philosophy, Saddleback College

TUES 3:15; DAR 122

Sex, Death, Advertising and Children: Teaching Media Literacy MEDIA, INF LOGIC, TACTIC/STRAT, H CON

Critical thinking presupposes literacy. At present, more and more students are being exposed to visual images in the media. It is imperative that we teach students to "read" the visual images and to critically evaluate the information presented. For example, images of sex and death are found in advertising in the form of subliminal messages which are not readily available to us on a conscious level, so that we are unable to critically evaluate these advertisements. In this slide presentation, we shall look at some of the techniques used by advertisers, and then shall focus on ads which depict children and also use subliminal images of sex and death. We will discuss some of the troubling questions which are raised by the use of these images.

AGUILAR WELCH, ROSE

Assistant Professor, Undergraduate Nursing Science, California State University, Dominguez Hills

MON 3:15; DAR 139

KATHLEEN F. O'CONNOR

Associate Professor and Chair, Graduate Nursing Science, California State University, Dominguez Hills

MARY J. CRUISE

Professor, Graduate Nursing Science, California State University, Dominguez Hills

A Study of Critical Thinking in Nursing Education NURS, COLL, BEG, TACTIC/STRAT

This participatory workshop will include: presentation of the findings of a research project which studied critical thinking in nursing education, discussion of the findings with and by the workshop participants, and development of future plans for use of the research findings. The session focuses on critical thinking as an integrative component of teaching/learning throughout the curriculum. Little nursing literature exists with practical information promoting critical thinking skills in graduate/undergraduate

nursing students, despite the rich opportunity for critical thinking inherent in health care. The project purpose was to describe and disseminate strategies to increase critical thinking skills in these students. Survey methodology was used to gather data from selected NLN accredited nursing programs on four items: (a) the definition of critical thinking used by nursing faculty, (b) common barriers to critical thinking, (c) successful teaching methods used to promote critical thinking, and (d) tools used by nursing faculty to measure growth in critical thinking. Descriptive statistics were used to analyze data.

AGUILAR WELCH, ROSE

Assistant Professor, Undergraduate Nursing Science, California State University, Dominguez Hills

WED 9:35-10:15; IVES 119

KATHLEEN F. O'CONNOR

Associate Professor and Chair, Graduate Nursing Science, California State University, Dominguez Hills

MARY J. CRUISE

Professor, Graduate Nursing Science, California State University, Dominguez Hills

(Mini-Session) Critical Thinking: Getting There with Fun and Games COLL, TACTIC/STRAT

The purpose of this mini-session is to illustrate how games can impart content and stimulate critical thinking. "A spoonful of sugar helps the medicine go down...". These words illustrate how the creative use of games in the classroom can facilitate the acquisition of knowledge and enhanced critical thinking skills. Participant involvement in an abbreviated "build a tinkertoy moose" exercise will illustrate how thinking is provoked in a creative way. Following the brief demonstration, how games encourage critical thinking and advantages and disadvantages will be discussed. Through the utilization of stimulating, thought-provoking activities, learning can be enhanced "in a most delightful way."

ALDRIDGE, MAVIS

Associate Professor, Communication Skills Department, John Jay College, New York

WED 8:45; ART 108

Analogical Reasoning: A Research Project on Cognitive Processes in the Interpretation of Proverbs between Advanced and Less Advanced College Students COLL, ADV, MUL-CULT, LANG

Although analogical reasoning is a versatile, multidisciplinary critical thinking tool, and useful for everyday living, it has been neglected in advancing students' thinking abilities. Analogical reasoning taps schematic information, compels metacognitive processing, promotes creativity, and evokes the recognition of resemblances between obviously similar objects, but more so among disparate relations and ideas.

This workshop will present various theoretical views of analogical reasoning through my research on proverb interpretation. This research was based on

combined theories from analogical research and certain elements and standards of critical thinking.

ALLEN, ROBERT D.
Vice President of Instruction, Victor Valley College

MON 10:30; STEV 1002

DAVID J. STROUP
Professor of Biology, Francis Marion University

Teaching Critical Thinking Skills in Science and Mathematics *Math/Sci, Tactic/Strat, Health, Nurs*

This workshop focuses on the critical and analytical thinking skills essential in learning science and mathematics. Teachers recognize that students should develop the ability to utilize basic concepts to draw conclusions, make interpretations, analyze experimental designs and evaluate results, make predictions, and solve problems. Although teaching these skills is difficult, appropriate teaching techniques, coaching and practice will lead to improved performance. During this session, critical and analytical thinking skills, and especially the difficulties and problems exhibited by students, will be illustrated and discussed. Primary emphasis will be given to designing instructional activities to incorporate the practice of critical thinking skills into classroom teaching within the context of specific subject matter. Each participating teacher will be able to develop appropriate instructional activities for one course which he or she teaches.

(This session will be repeated.)

ALLEN, ROBERT D.
Vice President of Instruction, Victor Valley College

TUES 3:15; STEV 1002

DAVID J. STROUP
Professor of Biology, Francis Marion University

Teaching Critical Thinking Skills in Science and Mathematics *Math/Sci, Tactic/Strat, Health, Nurs*

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(This session will be repeated.)

ALLEN, TISH SUN 10:30; STEV 2049
Coordinator of Alternative Instruction, Massachusetts Bay Community College

LYNN CHONG
Learning Specialist - Critical Thinking Program, Massachusetts Bay Community College

NED MCGUIRE
Critical Thinking Technical Assistant, Massachusetts Bay Community College

FREDERIC TÖRZS
Learning Specialist, Critical Thinking Program, Massachusetts Bay Community College

DEANNA YAMEEN
Associate Dean, Career Programs, Massachusetts Bay Community College

Collaboration within One Critical Thinking Department *Coll, TEST*

This interactive workshop will begin with a panel discussion by the four members of the critical thinking department at Massachusetts Bay Community College and the associate dean for their division. Presenters will discuss their efforts to integrate common academic outcomes and assessment standards with academic freedom for individual instructors. Workshop participants will learn about the rewards of collaboration which keep this department struggling with the tensions, territorialism and friction of collaboration. They will take part in a simulated department meeting in which they will be asked to design a critical thinking assessment.

ALLEN, TISH WED 8:45; IVES 34
Coordinator of Alternative Instruction, Massachusetts Bay Community College

Toward Strong Self-Assessment Skills *Coll, TEST*

This participatory workshop will focus on the importance of student self-assessment for critical thinking. It will trace the presenter's efforts at facilitating rigorous student self-assessment, at making intellectual standards explicit, and at providing multiple opportunities for students to assign standards and assess their own work. The presenter will offer several examples of her work on student self-assessment. Workshop participants will be asked to join in a set of activities designed to simulate instructional feedback to students on their self-assessment process and standards.

ALLEN, TISH TUES 11:20-12:00; IVES 119
Coordinator of Alternative Instruction, Massachusetts Bay Community College

(Mini-Session) Student Initiated Study of Assumptions *Coll, TEST, TACTIC/STRAT*

The purpose of this mini-session is to apply critical thinking abilities to real world situations. Since students spend a good deal of their time working on problems which are defined by the academic disciplines of school, it is important that students have practice in applying their abilities and intellectual standards to problems beyond the classroom which they identify as

significant. This should lead to the transfer of abilities to other areas of the students' lives.

A student initiated project challenging student assumptions about AIDS education will be presented as a example of the kind of work which might be undertaken.

ANDERSON, KENNETH

Instructor, Social Science, College of the Sequoias

SUN 1:30; ART 108

Critical Thinking Made Simple *BEG, COLL, MID/HIGH, INF LOGIC*

Critical thinking can be a very complex topic, but not in this session. Every attempt will be made to create a simple but comprehensive overview by examining how we do it and why.

Essentially, critical thinking is deciding what to believe logically and accurately. Logic and several different criteria for judging the accuracy of what we think about will be presented during the first hour. The relevance of other topics, such as, fallacies, problem solving, creativity, and the scientific method will be touched on as time allows.

ANDERSON, MARGARET

Educational Consultant, Bay Area Socratic Seminars

SUN 10:30; IVES 35

VICTORIA ALLEN

Educational Consultant, Bay Area Socratic Seminars

Socratic Seminars *Tactic/Strat, Staff Dev, Mid/High, Beg*

The Socratic Seminar leader assumes that knowledge and understanding are better achieved when constructed rather than received. Thus, learning is the new creation of cooperative action rather than the product of a teacher's or student's solo effort. The Socratic Seminar leader must draw out multiple perspectives on texts, insist that all interpretations be supported by textual evidence and clear reasoning, urge exploration of alternative views and help participants think about substantive agreements and disagreements. Seminar participants are given practice in critical thinking and are encouraged to pursue their curiosity about the context of ideas in question: the author, the historical period, possible connections with other texts, importance in their own lives, etc. In this workshop participants will have the opportunity to engage in Socratic dialogue and to critique this experience as a group. Participants will also engage in small group dialogue and critique. The workshop facilitators will offer basic exercises and tools which can help to develop the "seminar attitude" and effective seminar skills. This is not a presentation by experts but a "mind's on" experience in learning how to learn.

(Participants will benefit most by attending both "Socratic Seminars" as they are designed to be presented in a three hour format.)

ANDERSON, MARGARET

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(Participants will benefit most by attending both "Socratic Seminars" as they are designed to be presented in a three hour format.)

ANGELETTI, CHARLES

Professor of History, Metropolitan State College of Denver

TUES 10:30; STEV 3040

The American Road as Metaphor: Exploring the Voices of Those "On the Road" in America to Teach Critical Thinking *MID/HIGH, COLL, MUL-CULT, Soc Stud*

Travel writing has received a bad rap. The presenter has taught/facilitated a course titled "Voices from the American Road" for several years. The writing of those who have used the road (in America) serve as internal and external journeys. The writings range from Tom Kromer in the 1930's to Jack Kerouac and the Beats to Eddy Harris and others in the 1990's. The class uses the "road" to teach critical thinking through experiential small town investigation, urban explorations, text explication, resource speakers, videos, personal journals and small group work. The course emphasizes critical thinking as a process which encourages students to individualize and take charge of their thinking and learning. Course materials will be distributed and where to go will be suggested...

BASSHAM, GREGORY

Assistant Professor of Philosophy, King's College

TUES 3:15; STEV 3046

HENRY NARDONE

Assistant Professor of Philosophy, King's College

Using the Film "JFK" to Teach Critical Thinking TACTIC/STRAT, POL, MEDIA, SOC STUD

The assassination of JFK is the ultimate murder mystery of the 20th century and thus a natural "hook" for critical thinking teachers looking for interesting ways to drive home to their students that critical thinking can indeed be of great "real world" value. In this session, we offer a practical description of how to use Oliver Stone's controversial and award-winning 1991 film "JFK" and related materials to teach critical thinking. The presentation will show excerpts from the film and use small-group settings to discuss how the film can be used to teach key critical thinking skills and dispositions.

BETZ, NORMAN

Associate Professor of English and Philosophy, Central Missouri State University

SUN 10:30; DAR 122

The Myers-Briggs and the Process Toward Critical Thinking COLL, TACTIC/STRAT, LANG, TEST

This session will apply the Myers-Briggs to the classroom as a means of creating the environment for critical thinking. The session will demonstrate how the Myers-Briggs provides a vocabulary for articulating student needs, student strengths, and student limitations as class activities move toward critical thinking.

The first part of the session will be a review presentation of how the MBTI interacts with the way students learn and think.

The second part will be more interactive: we will examine early papers to induce M-B types and to detect early thought indicators. Later we will again induce M-B typology and the critical thinking present in final exam papers on Jane Tompkins' book *West of Everything*.

At the end, we will evaluate the extent to which students have attained the NCECT standards. If time permits, we will suggest future teacher interventions.

BOHANNON, RON

Media Instructor (Programming), Independence High School

MON 3:15; IVES 34

A Critical Study of H.L. Mencken's Dialectic Irony in *In Defense of Women* BEG, ADV, LANG, TACTIC/STRAT

H.L. Mencken wrote in the Socratic tradition seen in Nietzsche and Schopenhauer using dialectic irony for inquiry *On Women*. Mencken's book *In Defense of Women* (1922) focuses on the women's movement in the wake

of feminine triumphs, such as winning the right to vote and other diverse cultural advances in the early part of the twentieth century.

Mencken's writing *In Defense of Women* reveals the genetic influence of Socratic style. Schopenhauer and Nietzsche had concordant philosophic methods, and Mencken held views consonant with Nietzsche and Schopenhauer "On Women."

A summary of criticism of the conditions for classical method of dialectic irony is obtained from the Critical School (Adorno, Horkheimer), the Rhetorical school (De Man, Derrida), Oxford scholars (Vlastos, Robinson) and Classic philosophers (Socrates, Schopenhauer, Nietzsche, and Kierkegaard) to form a evaluation criteria. Mencken's irony in *In Defense of Women* is critiqued in contrast to Socrates' original method to show how and when dialectic irony becomes legitimate ethical inquiry. Conclusions focus on recommendations, implications, limitations and possibilities for using dialectic irony in relation to pluralistic discourse.

BOHANNON, RON

Media Instructor (Programming), Independence High School

SUN 10:30; DAR 139

Dialectic/Pragmatic Thinking: A Study in Conceptual Contrasts PHIL, ADV, LANG

Pragmatism as a philosophical movement began officially with Charles Pierce, and was popularized by William James and John Dewey. The solidification of the movement at the beginning of the 20th century marked the end of critical inquiry and the move toward positivism. Pragmatism threatens to desecrate every area of humanities for whatever is expedient giving rise to the ethical relativity (Altschull, 1991, Soltzeten, 1993) of pragmatic rituals, while interests in collectivity which require training in extensive communication skills are declining.

This study traces a social evolution of critical thinking in the fathers of pragmatic philosophy which takes the position—if an idea does not have any practical consequences then it is irrelevant or unreal. This paradigm shift has made people today impatient with ideas and crippled their communication skills. Other social problems of pragmatism have developed since the inception of pragmatism and its utile approach to moral expedience.

Classic liberal thinking, critical thinking, or rational thinking absent from classroom adversely affects social discourse. Findings show the flaws and faults of this transformation created a false polemic and that the founders of pragmatism were schooled in dialectic thought and never intended to corrupt it.

BRENNER, DOUG **SUN 1:30; STEV 3040**
Associate Professor, Speech Communication, University of South Dakota

TOM GEU
Associate Professor of Law, University of South Dakota

Critical Thinking and the Rules of Evidence in Law: A Historical Perspective and Pedagogical Implications Coll, Adv, Tactic/Strat

Selected provisions of the Federal Rules of Evidence are used to illustrate the history and applications of critical thinking within the domain of law. Critical thinking can be enhanced by understanding the development and application of thinking about evidence. Seen from a legal perspective, students may better understand how and why critical thinking is important in developing and supporting a point for a particular audience and in assessing the veracity of information presented to them. The rules concerning relevance, best evidence, expert testimony, competence and others may help students more carefully evaluate and use supporting materials. The material and teaching models presented may be used as a paradigm to foster critical thinking in the classroom and will stress practical applications (for example, using critical thinking to help resolve typical disputes involving landlord-tenant relationships or speeding tickets).

BRENNER, DOUG **MON 10:30; STEV 3040**
Associate Professor, Speech Communication, University of South Dakota

Developing Video Literacy/Critical Thinking Skills MEDIA, COLL, BEG, HIGH

Students generally respond passively to media such as television or videotapes and films in the classroom. This program illustrates how to more effectively use media by using C-SPAN resources to engage students in critically questioning and thinking about current or past issues available on C-SPAN and archived material. We need to encourage students to recognize and evaluate multiple points of view as well as to analyze assumptions, reasoning and the limitations of the types of evidence offered in support of positions presented in public discourse. C-SPAN resources can be used connect students to social-political issues while enhancing the critical stance and thinking they ought to take in becoming responsible and thoughtful citizens.

BROWN, LEE **SUN 10:30; STEV 3040**
Project Director, Critical Thinking/Critical Writing Development Project, University of Illinois

Materials, Methods, and Strategies for Teaching Critical Thinking to the Educationally Disadvantaged-to Students at Risk MID/HIGH, COLL, MUL-CULT, TACTIC/STRAT, BEG

This interactive workshop provides materials, methods, and strategies for teaching critical thinking and critical writing to students with educationally disadvantaged backgrounds. By "educational disadvantaged" backgrounds, I

refer to backgrounds that have not included the sorts of sustained educational experiences that foster a functional understanding of logic and a functional appreciations of approaches, methods, skills, strategies, or tools that are essential for competency at critical thinking and critical writing. I propose teaching materials, methods, strategies, and techniques that are effective for motivating learning and for instilling critical thinking skills and critical writing skills in educationally disadvantaged students and students at risk. The workshop should be fruitful for teachers of high school and college, and for teachers who work multi-cultural and multi-ethnic environments.

(This session will be repeated)

BROWN, LEE **TUES 1:30; IVES 34**
Project Director, Critical Thinking/Critical Writing Development Project, University of Illinois

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(This session will be repeated)

BROWNE, M. NEIL **SUN 10:30; WARREN**
Distinguished Teaching Professor of Economics, Bowling Green State University

STUART M. KEELEY
Professor of Psychology, Bowling Green State University

GETTING STARTED AS A TEACHER OF CRITICAL THINKING: CLASSROOM BEHAVIOR AND ASSIGNMENTS TACTIC/STRAT, COLL, BEG, SOC STUD

Now that you are committed to teaching critical thinking, how can you best achieve your intentions?

This session is designed to share experiences and lessons from over 20 years of teaching critical thinking. The presentation will proceed logically

through the entire teaching process from the creation of course objectives through assignments and appropriate classroom behavior.

Emphasis on the presentation will be on the practical. Numerous handouts will be provided to serve as stimuli for thinking about typical problems and options. Experienced members of the audience will be given the opportunity to spell out approaches and strategies that they found especially effective.

BROWNE, M. NEIL SUN 1:30; WARREN
Distinguished Teaching Professor of Economics, Bowling Green State University

STUART M. KEELEY
Professor of Psychology, Bowling Green State University

Lessons Learned from Two Decades of Teaching Critical Thinking
TACTIC/STRAT, COLL, BEG, SOC STUD

The premise of this participatory workshop is that those who attend this conference have an enormous accumulated experience that can be useful. The workshop leaders, the authors of *Asking the Right Questions: A Guide to Critical Thinking*, have both taught critical thinking for more than 20 years. The first third of the workshop will be the presentation of what they think they have learned from that experience.

The bulk of the workshop will consist of a structured sharing session in which we will question one another and pass along hints, focusing on improving our critical thinking efforts as teachers. The workshop will close with the generation by the group of continuing dilemmas faced by those of us teaching critical thinking. By ending in this way will provide one another with a structure for ongoing thought and study about our joint project of encouraging critical reading and listening.

BROWNE, M. NEIL SUN 3:15; WARREN
Distinguished Teaching Professor of Economics, Bowling Green State University

Potential Trouble Spots that Bedevil Critical Thinking Classrooms(Participatory Workshop) *TACTIC/STRAT, COLL, MID/HIGH*

Those of us who teach critical thinking are often lonely and unappreciated. Consequently, we need more opportunities to share with one another our pedagogical problems and strategies for responding to them. This participatory workshop will offer one such opportunity by focusing on the trouble spots that experienced critical thinking teachers have learned to expect and struggle regularly to overcome. The trouble spots will be classified into the following categories: psychological condition of the learner, lack of integration in the instructional plan, the consumer metaphor of education, infrequency of internalizing the critical skills and attitudes that can be displayed quite proficiently on an exam or in a paper, artificial separation of the student from the argument being evaluated, and Olympian expectations. The

presenter will both suggest responses to these trouble spots and encourage other experienced teachers to supplement these suggestions with their helpful hints. The presenter has taught critical thinking for over twenty-five years, and that experience has persuaded him that these problems WILL arise. So it just makes sense to get ready for them.

BUCKENMEYER, ROBERT G. MON 1:30; STEV 3040
Professor of Philosophy and Religion, American River College

Traditional Critical Thinking and the American English Language and "Culture" *COLL, STAFF DEV, LANG, INF LOGIC*

Since the American English Language is a derivative language, not only non-inflected, but linear and one dimensional, it lacks any foundation or internal discipline which would promote critical thinking within its American monolingual speakers or writers.

The result is that if and when monolingual, even bilingual or trilingual non-American English speakers failure is the inevitable result for two reasons: first, because lacking any intrinsic consistent morphology, American English is an ineffective medium through which to teach critical thinking or writing; secondly, lacking any other language experience, monolingual American English teachers have no context from which to draw any coherent morphology and lack any bridge to construct any transfer so students can learn this non-inflected derivative language.

BURRITT, DAN MON 10:30; DAR 122
Teacher/Co-director C.A.R.E., Children at Risk in Education

Creating Math Islands with the Thinking Skills Format *TACTIC/STRAT, K-12, BEG, MATH*

Math Islands is a classroom tested unit. The unit facilitates students in discovering the bridges among mathematics, literature, writing, science, history, technology, and telecommunications. The learner considers the elements of reasoning and the Thinking Skills Format by applying the universal intellectual standards in the pursuit of cultivating the Traits of Mind. Primarily, it is a unit of mathematics that focuses upon the NCTM standards of reasoning, problem solving, communication, and the strands of measurement, geometry, number and computation, and statistics. By using the natural creativity and curiosity of students to create their "own" island, the unit draws the student into areas of Socratic dialogue and inquiry. Connections are made among individual islands, cognitive skills, and the academic areas. The overall guideline for the unit is the Thinking Skills Format—the thinking programs used in the classroom. Students learn the power of applying the stages of intention-reciprocity—metacognition-bridging-principle-summary—in this project. This is a participatory workshop.

BURRITT, DAN

Teacher/Co-director C.A.R.E., Children at Risk in Education

WED 8:45; DAR 122

Using Reciprocity: Mutual Exchange of Information in Solving Tasks or Problems *K-12, TACTIC/STRAT*

Students attempt to solve problems or tasks that appear safe or familiar. They evade solving problems or tasks that appear unfamiliar. The use of Reciprocity or the mutual exchange of information allows students to recognize the power of what they already possess. Students recognize prior knowledge or strategies that aid in task solution. Students recognize that what is not known can be an aid in successful and thoughtful solutions. It is okay and appropriate not to know an immediate solution. In fact, it might be preferable to pursue what is not known to develop multiple approaches to solve a task.

Participants will receive a copy of the Thinking Skills Format Guide and a written explanation of the guide for out of class reference. We will define our meaning of Reciprocity—a reciprocity of the Reciprocity. We will investigate the student and teacher probes and questions in the Reciprocity Stage of the TSF Guide. The direct application will be examples of common problems or topics students might face in mathematics, history or reading. We will use the same concepts or lessons on the intermediate level in NCTM framework as a common reference. We will create and discuss question types/probes that students can use or investigate in the reciprocity stage. Participants will exchange areas they anticipate to pursue in developing other reciprocity questions. If teachers wish to network beyond the conference, e-mail addresses can be exchanged. I will be available for any teacher networking during the year.

CARDELLE-ELAWAR, MARIA

Associate Professor, Education Department, Arizona State University

WED 8:45; STEV 3049

A Self-Regulated Model to Guide Low-Achieving Students in Solving Mathematics Problems *GEN, BEG, ADV, MUL-CULT*

This paper presents a self-regulated model to guide low achieving students in solving mathematics problems. Derived from metacognitive theory and validated with research findings, it is designed to guide students toward being in control of their learning during the process of solving problems. The author poses three practitioner oriented questions: (1) How can I develop and reinforce those processes associated with higher order thinking by promoting students' autonomy as they engage in a self-inquiry process? (2) What can I do to direct and maintain student's steady focus in sequential steps during the decision making process? (3) How can I increase students' trust and my own ability to be in control of their own learning? A description of why and how this model facilitates the process that metacognitive theory identifies as necessary for problem solving is provided as well as principles for teacher mediation during the implementation of the model. Predicted outcomes are discussed from a practical and a metacognitive perspective.

CARTER McDONALD, NANCY

Associate Professor, School of Nursing, Auburn University at Montgomery

MON 3:15; CAR 68

A Critical Thinking Model for the College Classroom *COLL, TACTIC/STRAT, BEG, NURS*

A critical thinking model with self-direction and dialogic elements is described. The theoretical base of the model is derived from the works of education leaders in critical thinking and self-directed learning. Collaborative, dialogic interaction between teacher and learner is emphasized.

Three primary components are identified in the model: teacher, learner, and the teaching-learning environment. The teacher acts as critical agent, the student is self-directed, and the teaching-learning environment is dialogic. Each component shares equally in the educational process in an open and consistently interacting manner. Five characteristics of each component are identified. When all characteristics are present and functioning within the model components, a climate that provides for critical thinking/learning can be anticipated. The potential for promotion of critical thinking and learning in adult learners can be enhanced with the use of this model. The development of critical consciousness in participants may be a result of learning experiences based on the model.

CAVINA, KRISTAN

Professor of English and ESL, Rancho Santiago College

MON 3:15; DAR 122

Teaching Critical Thinking in the Writing Class *LANG, TACTIC/STRAT, COLL*

The presenter will demonstrate a method of writing instruction based on the principles of critical thinking. Students, through this method, learn to limit a topic and focus on a controlling idea. They organize their ideas logically, experimenting with levels of support, distinguishing generalizations from details, and eliminating nonrelevant information. They examine the variety of meanings achieved through the use of transitions and sentence combining. The relevance of point of view, purpose, and audience in the writing process is studied. The function of grammar in the expression of meaning is examined. Writing is analyzed for various possible interpretations. Students, working by this method, come to see a composition as an orderly exposition of a clearly defined thesis.

CAVINA, KRISTAN

Professor of English and ESL, Rancho Santiago College

WED 8:45-9:25; IVES 119

(Mini-Session) Teaching Grammar Through Critical Thinking *MID/HIGH, COLL*

The purpose of this mini-session is to help students understand grammar concepts rather than memorize grammar terms. In this way, they can apply principles of grammar where necessary in order to express their thoughts in effective sentences and to identify and correct problems in sentences they have created. Students, if they have studied grammar at all, have usually

memorized definitions of grammar terms rather than acquired an understanding of what the terms represent.

Students, through the activities presented, are helped to discover four basic functions of words and the meanings of the terms used in connection with those functions.

CEDERBLOM, JERRY TUES 10:30; STEV 3046
Professor of Philosophy, University of Nebraska at Omaha

The Critical Reasoner As Protagonist INF LOGIC, TACTIC/STRAT, COLL

How can we help students transfer critical thinking skills from the classroom into their daily lives? This participatory workshop presents a method of practicing critical reasoning by acting out real-life disputes and discussions in the classroom. Scenarios based on students' own experiences present problems for the Critical Reasoner/Protagonist such as how to engage a combative opponent in a productive, cooperative exchange of views. The presentation draws on the techniques of South American dramatist Augusto Boal and his Theatre of the Oppressed.

CHAMBERLAIN, PH.D., HARRIET SUN 1:30; STEV 2049
Educational Consultant, Lecturer, Founder of Thinking Possibilities...™, Thinking Possibilities...™

Thinking For Your Life COLL, ADV

The need for critical thinking has overrun the boundaries of academia, business, banks and politics. If there is any chance of sustaining a quality of life that nurtures survival itself, that supports life with dignity, and advances our as-yet-unfulfilled humanity, we need to foster a quality level of thinking that is accessible across all levels of society in our everyday world.

This workshop/discussion will focus on recent research theories in brain evolution that may shed light on how and why thinking and feeling "patterns" may be beneficial in perpetuating security, but can impede or undermine the goals and practices of "strong" critical thinking. We will then examine some of the obstacles that negatively affect the quality of our everyday lives, and conclude with active participant involvement in thinking exercises designed to diminish obstacles, expand "inner space" to accommodate broader perspectives, and enlarge our repertoire of choices. Workbook provided.

CHEREDNICHENKO, BRENDA MON 1:30; IVES 34
Lecturer, Department of Education, Victoria University of Technology

The Geographical Location of the Teaching of Thinking Skills Programs ELEM, SOCIOL

(This paper reports on an aspect of the research and work in progress.)

In exploring the differences in schools and their curricula, it has been interesting to note the broad differences in the range and type of curriculum

defined and offered in schools in different geographical locations. In particular, I have examined the development and implantation of thinking skills programs in the primary school curriculum.

A survey of Melbourne primary schools has indicated an uneven distribution and implementation of programs, additional to the general curriculum, which are designed to develop thinking skills. One of the most significant issues raised by this research is why schools, both public and private, in the inner east of Melbourne are more likely than other primary schools to offer such programs.

However, apart from listing and examining the variety of programs which are considered to be addressing thinking skills in schools, the ensuing debate about the nature of thinking skills and whether or not these programs actually do develop thinking skills, there are more perplexing questions for education in Victoria University. This report of research in progress investigates the geographical location of thinking skills programs in an attempt to uncover some of the influences on school decision making with regard to these programs. It also establishes the need to discover to what extent socioeconomic and socio-cultural influences are factors in these educational decisions.

CHEREDNICHENKO, BRENDA WED 9:35-10:15; IVES 119
Lecturer, Department of Education, Victoria University of Technology

(Mini-Session) Confident Critical Thinkers GEN

The purpose of this mini-session is to help build confident contributors in class discussions. Some students find it easy to speak up in class and often they are good thinkers, but not all good thinkers are confident or sufficiently articulate to feel comfortable about speaking up in class. Whatever the reason for this reticence, teachers must be able to provide an environment in which all students feel able to and do contribute. Establishing communities of enquiry in classrooms provides an environment where all members feel personally safe yet intellectually challenged.

In a community of inquiry students and teachers have equal responsibility for the development of thinking, including the amount of talking time. The student's ideas are the focus of the discussion. Students engage directly with each other's ideas, rather than filter their comments through the teacher. As in all critical thinking activities, sound reasoning is valued and students offer critique of ideas rather than people.

Activities are used to foster a critical examination of language and concepts and to encourage students to engage in a discussion which requires an explanation based on sound reasoning rather than a search for the right answer. Small group and whole group activities encourage the development of trust and respect within the group so that each child is valued and their ideas challenged. This provides a sound basis for full participation and often the discovery of 'hidden' ability.

CHONG, LYNN R.

MON 3:15; STEV 3040

Learning Specialist - Critical Thinking Program, Massachusetts Bay Community College

How Do You Know Your Evidence Is True? *HIGH, COLL, TACTIC/STRAT*

This participatory workshop session will be conducted to model a classroom of young adult learners exploring *knowing*, as Richard Paul's structured examination of one's belief, or statement, or conclusion demands. Strong sense critical thinking can evolve if a student will use standards and criteria when coming to believe, "I know." However, any response that develops from a serious question of reasoned judgment must also be examined for its limits and its reasonableness. How can a student with one semester's exposure to critical thinking skills accept what may feel like vacillation and, worse, that provokes insecurity in cases where "knowledge" is then debunked? What is a facilitator to do?

Materials used will include student papers written by MBCC students during the spring term, 1995, and other materials created from current events, such as "the cow through the roof."

COLBOURN, FRANK E.

MON 1:30; ART 108

Full Professor of Speech Communication Studies, Pace University

How We Put the Background of Epistemic Application Into the Foreground of Critical Thinking *COLL, ADV, PSYCH, TACTIC/STRAT*

This session presents a primary tool of learning: the underlying patterns of thought, Epistemes, we apply in perceptions, evaluations, decision, and actions. There will be a hands-on demonstration examining how participants apply Epistemes in the evaluation of a given situation. Following this focal activity, there will be a three part presentation:

- (1) How we got to where we are now in Epistemic Analysis with reference to the broad variety of scholars and ideas in its historical development;
- (2) Current usefulness and applications; and
- (3) Future applications and potential for insights in Critical Thinking using Epistemic Analysis.

COLLISON, GEORGE

MON 10:30; STEV 1040

Assistant Professor of Math and Science Education, University of Massachusetts Dartmouth

Empowering Teachers to Teach Using Inquiry in Algebra and Pre-Algebra *MATH, MID/HIGH, COLL*

This hands-on workshop focuses on new ways to incorporate inquiry based instruction and critical thinking in pre-algebra and algebra. Manipulatives, supplemented by spreadsheets and simple plotting programs provide con-

crete representations and contexts for exploration of algebraic forms. The role of function in early algebra is examined, and its centrality in any critical understanding of algebraic thinking is assessed. Emphasis is placed equally on deepening both pedagogical perspective and content knowledge of instructors and students. Methods presented are applicable in one-computer classrooms as well as in lab settings.

COLLISON, GEORGE

MON 3:15; STEV 1040

Assistant Professor of Math and Science Education, University of Massachusetts Dartmouth

Linking Understanding in Math and Science Through Argument and Discussion in the Language of Functions and Graphs *MATH/SCI, MID/HIGH, COLL, COMP AID*

A new technology that permits data taking and analysis from Quicktime™ clips provides math and science educators innovative ways to make meaning in cross disciplinary explorations of "real world" phenomena. Three software packages will be featured in this 'hands-on' workshop: *Motion Analyzer and Motion Maker* (Tom Snyder Productions), and *Measurement and Motion* (Learning and Motion). Instead of presenting ideas or prompting students' responses, this new approach is designed to stimulate discussion, make conjectures, and try out ideas to see if they make sense. The methods in the workshop are equally adaptable to the one computer classroom as to a lab setting. Ways to provide similar contexts for critical discussion in technologically challenged environments will also be addressed.

COLLISON, JUDITH

WED 10:30; STEV 3008

Assistant Professor, Critical and Creative Thinking Program, University of Massachusetts Boston

The Role of Critical Thinking in Mathematics Education Reform *MATH, STAFF DEV, K-12*

Since 1989, when the NCTM published its *Standards for Curriculum and Evaluation*, a great deal of attention has been paid to revising the K-12 mathematics curriculum. Statewide Systemic Initiatives, Urban Systemic Initiatives, district-based and school-based curriculum and professional development programs have focused on implementing these *Standards*. Many states have produced their own Mathematics Curriculum Frameworks document, based on the national standards. This session will examine the new Massachusetts Mathematics Frameworks in light of the national reform movement in mathematics education, teacher education and professional development, with special focus on the critical and creative skills that are called for by the reforms.

COLLISON, JUDITH

Assistant Professor, Critical and Creative Thinking Program, University of Massachusetts, at Boston

TUES 10:30; STEV 3008

How to Write and Evaluate Open-ended Questions in Mathematics *TEST, MATH, K-12*

Reform in mathematics education necessarily calls for new methods of assessment. The new focus is on understanding and using mathematics, rather than merely recalling formulas and algorithms. New assessment methods need to be developed in order to evaluate students' understanding of and ability to use mathematical ideas. Performance based assessment, portfolios and open-ended questions are used increasingly. While such authentic assessment tools are better measures of student progress, they are also rather difficult to develop and to score. In this session we look at some criteria for creating and for scoring ended questions in mathematics. Participants will write questions based on the criteria, provide answers at a variety of levels, and will develop benchmarks for scoring responses.

COODLEY, LAUREN

Professor, Social Sciences Department, Napa Valley College

WED 10:30; ART 108

ROBERT WRIGHT

Professor of Economics and Music, Napa Valley College

Critical Thinking and Medicine: A Dialectical Analysis *HEALTH, POL, BUS, SOCIOI*

We will present a third wave model for critical thinking which incorporates a dialectical model for analysis. We will demonstrate this model through the example of the institution of medicine without our society. Dialectical method postulates that the epistemological foundations of ordinary abstract reasoning, and particularly that of ordinary extension to objects, is not alone adequate to describe the dynamic universe in which we live. This model redefines "science" from the standpoint of a dynamic universe, as a study of process and change within a political-economic context and includes a critique of positivism as groundwork for a new paradigm. We shall see that the social production of medicine (as do all our institutions) reflect the unconscious ideology of the present society in which we live. Participants will have an opportunity to begin to apply the principles of analysis with their own experiences with medicine.

COSTA, DARRELL E.

Professor of General Education (English/Humanities), DeVry Institute of Technology, Pomona

TUES 3:15; STEV 3072

STEVEN ROSENBLOOM

Independent Lecturer/Filmmaker

Demagogues in Our Midst: Critically Assessing Demagogic "Talk" in Our Political, Religious and Entertainment Leaders (From Limbaugh, Gingrich and Robertson to Jackson, Perot, Farrakhan and Kahane, to You and I) *LANG, POL, INF LOGIC, COLL*

A dangerous assumption for those wishing a democracy is that demagoguery is self-evident, that "we" (having the basics of a good high school or college education) could easily recognize demagogic persuasion and acti-

vate our resistance. In our midst, however, many leaders still lead (read "dupe") the people (even the most "educated" masses) with an arsenal of pseudo-reasoning. We propose that proper inoculation against demagogic thinking is in order through *a*) the mastery of key definitions and concepts *b*) recognition of the demagogue's fallacies and appeals *c*) practice in identifying demagoguery in various forms of rhetoric. Mini-indoctrination into demagogic "tricks of the trade" using speech excerpts from popular "leaders" will include Us vs. Them thinking, Tantalizing Tautologies, Attack Humor, the Populist Rap and playing the Patriot Game.

COTTON, WEBSTER E.

Professor of Educational Foundations, School of Education, C.S.U., Los Angeles

SUN 1:30; DAR 122

Thinking, Education and the Human Project: The Contrasting Perspectives of Socrates, Dewey and Heidegger *COLL, PSYCH, TACTIC/STRAT, SOCIOI*

For many leading thinkers the central question of our time is: "What is the meaning of our Human Beingness?" When we connect this question with Parmenides aphorism: "Thinking and Being are One," we are brought into the realm of *Logos*. The concept of critical thinking, in its most generic form, seems to have its roots in *Logos*- our unique human potential to use our mind to think, to reason, to question, to wonder - to be searching for the Truth of Being Human (*what really is ...* going on, possible, important for us as Human Beings). In this session I plan to explore three contrasting (but complementary) perspectives on *Logos* as a way of opening-up our understanding of the relationship between thinking, education and the Human Project. As representatives of these perspectives I have chosen Socrates (Dialogical-Philosophical), Dewey (Empirical-Scientific) and Heidegger (Existential-Ontological). This session will be in the seminar format, with an initial 20-25 minute presentation.

DA VENZA TILLMANN, MARIA

Ph.D. candidate of Education Policy Studies, University of Illinois Urbana

SUN 10:30; STEV 2006

Philosophical Counseling: Philosophy From the Bottom Up *PHIL, TACTIC/STRAT, H CON*

Philosophical Counseling assists people in dealing with problem areas in their lives. Philosophical Counseling uses the client's own "theory", or "philosophy of life" to help interpret his/her problem areas in life. It focuses on the often unquestioned underlying assumptions of the client's worldview, and is interested in discovering the logic of the person's philosophy of life. Through philosophical dialogue, and logical analysis, a client can gain insight into his/her own frame of reference. The objective is to enhance a person's ability for independent decision-making, and power of control over one's own life. To concentrate on these aspects in a person's life is also to liberate and free a person from solely egocentric and sociocentric habits of thought. Philosophical Counseling is the art of hearing through experience, whereby new ideas are generated and developed.

DALEY, VICKEY

Lecturer, Stephen F. Austin State University

TUES 10:30; STEV 3049

SYLVIA BIERSCHENK

Lecturer, Stephen F. Austin State University

What do You See? What do You Know? MID/HIGH, BEG, TACTIC/STRAT, LANG

Through participation in these activities, students should learn how and what they think more clearly. We present a series of critical thinking activities aimed at middle school and high school students. In these activities, we investigate the conclusions we draw from situations presented in photographs, real life, film, and hypothetical questions. We also explore the assumptions behind these conclusions and the basis for our thought processes. We offer detailed activities that could be used in a seminar or broken into individual parts for a week's worth of lessons. We are interested in illustrating to the students the layers of their thought processes and enabling them to begin to examine why they think the way they do. This program is flexible and adaptable for many grade levels. Additionally, we will provide a packet of handouts for each session attendant.

DALEY, VICKEY

Lecturer, Stephen F. Austin State University

WED 10:30-11:10; IVES 119

SYLVIA BIERSCHENK

Lecturer, Stephen F. Austin State University

(Mini-Session) Real-World Focus: The Practical Art of Reasoning MID/HIGH, COLL

Critical thinking abilities are needed to formulate an effective argument. To methodically assist students in becoming critical thinkers, we implement strategies that will heighten their awareness of "how" they think. We begin with a photograph that raises some issues that students quickly realize. After the students draw their conclusions, we provide some background "truth" in regard to the photo. From this "truth," we again focus on the issues and assist the students in discovering the premises behind their ideas about these issues.

DAMER, T. EDWARD

Professor/Author, Department of Philosophy, Emory and Henry College

SUN 10:30; STEV 1002

How to Distinguish "Good" Arguments from "Bad" Ones INF LOGIC, GEN

This workshop will demonstrate how a basic understanding of the nature of a fallacy can provide a simple and effective means of evaluating the quality of an argument. A fallacy is defined by the workshop leader as a violation of one of the four criteria of a good argument. A handout of common fallacies (violations committed so frequently that they even have their own names) from the new edition of the workshop leader's *Attacking Faulty Reasoning*

will be distributed to workshop participants. Sample arguments that deal with current issues will be evaluated as a part of the workshop.

DAMER, T. EDWARD

Professor/Author, Department of Philosophy, Emory and Henry College

SUN 1:30; STEV 1002

How to Construct Effective Moral Arguments MID/HIGH, COLL, BEG, INF LOGIC

It is primarily moral issues that engage our most serious intellectual attention. Yet many critical thinking courses give little focus to the peculiar character of moral arguments and the part that they play in persuading us toward moral commitment or action. This workshop will suggest a model for constructing persuasive moral arguments, with particular attention given to the task of formulating clear moral premises. Participants will construct and share their own moral arguments that deal directly with the controversial issues that disturb and divide us.

DAMER, T. EDWARD

Professor/Author, Department of Philosophy, Emory and Henry College

SUN 3:15; STEV 1002

How to Resolve Disagreements on Controversial Issues COLL, MID/HIGH, H CON, INF LOGIC

This session will focus upon the rules of intellectual behavior that critical thinkers would be expected to follow in a serious discussion of a controversial issue. These rules clearly take on an ethical dimension, since fairness demands that all parties to a dispute be committed to the same minimal standards of intellectual behavior. But the rules also describe the kind of intellectual behavior which *works*- which actually resolves conflicts. A handout of a "Code of Conduct" form the new edition of the workshop leader's *Attacking Faulty Reasoning* will be distributed to workshop participants. Part of the workshop may be devoted to demonstrating the effectiveness of the principles by attempting to "resolve" a political or moral conflict found between workshop participants.

DAMER, T. EDWARD

Professor/Author, Department of Philosophy, Emory and Henry College

MON 11:20-12:00; IVES 119

(Mini-Session) Concept of Rebuttal INF LOGIC, GEN

Almost any of us can construct what appears to be a decent-sounding argument for a position on one side of a controversial issue. But we often do this by ignoring the strongest argument on the other side of the issue. This mini-session will demonstrate how to turn a decent-sounding argument into a really good argument by acknowledging and effectively rebutting the best arguments on the other side of the issue.

DAMER, T. EDWARD

Professor/Author, Department of Philosophy, Emory and Henry College

(Mini-Session) Concept of Fallibility *BEG, COLL, MID/HIGH, H CON*

One of the most difficult issues that any of us faces is the reality that we are often wrong in our beliefs and opinions. This mini-session will demonstrate how to get students to understand and assume their own fallibility, as the first step in any kind of intellectual inquiry.

DAVIS, BERNARD

Associate Professor, Education Department, St. Mary's University

Informal Logic and the Problem of Factual Belief *COLL, INF LOGIC, ADV, TACTIC/STRAT*

The argument of the paper to be presented is that traditional informal logic has two approaches to factual premises—induction and evaluating the credibility of the source. The first is a variant of the fallacy of affirming the consequent. The second is a variant of the genetic fallacy. These must be replaced. Their replacement will broaden critical thinking beyond informal logic to include probability theory, the hypothetical deductive method, and an investigatory rather than a credulous approach to testimony and authority. Discussion will include both the argument presented in the paper and the general question “what should we teach in the undergraduate critical thinking course?”

DAVIS-SEEVER, JANE

4th Grade Teacher, Guilford County Schools

Constructivism—Putting Critical Thinking to Work in the Elementary Classroom *ELEM, TACTIC/STRAT*

This session will look at the essential qualities of critical thinking in early childhood, focusing on the abilities and qualities put forth by leading proponents of critical thinking, especially Richard Paul and Henry Giroux. These components will be integrated into the constructivist view of teaching and learning such as proposed by Eleanor Duckworth. A practical look into a critical thinking, constructivist classroom will be given using the experiences within the classroom of the presenter as well as the research into critical thinking in young children done by the presenter. Research findings that will be presented will show that young children are using the critical thinking strategies isolated in the writings of Paul and Giroux, especially outside of the traditional early childhood classroom; that even in school, when teachers do not interfere, they employ critical thinking skills. Evidence of adult manipulation of their thinking, of thinking as a political act, and strategies employed by young children to think will be discussed. The aim of this presentation is to show that young children are thinking critically outside of school now, and that within a constructivist classroom they can be encouraged to think critically within a schooling environment. This presentation will not only discuss the theories of both critical thinking

MON 4:05–4:45; IVES 119

WED 8:45; STEV 3040

WED 8:45; STEV 3072

and constructivism but will also show how these theories can be combined within a classroom to foster strong sense critical thinking from the onset of the child's educative experience.

DAVIS-SEEVER, JANE

4th Grade Teacher, Guilford County Schools

(Mini-Session) Portfolios for Critical Thinking *ELEM*

The purpose of this session is to help students control their own learning and assessment through a method of self-direction and critical thinking about their learning. Elementary school students are increasingly losing motivation for learning, and their learning seems to be something that is done to them rather than by them. Many teachers feel that critical thinking must be left until basic facts and skills are acquired. This presenter will show that through the use of portfolios both as a vehicle for assessment as well as a method of self-directed learning, students can become independent, motivated critical thinkers who can demonstrate understanding at many levels.

DONLEY, JEFFERY R.W.

Professor, IDS Honors Program, Valencia Community College

Surfing the Third Wave: Integrating Critical Thinking and Interdisciplinary Studies for the 21st Century *COLL, STAFF DEV, MUL-CULT, ADV*

At Valencia Community College, the freshmen and sophomore students of the nationally known Interdisciplinary Studies Honor Program are taught the rigorous and comprehensive principles of hermeneutical exegesis and contextualization as the key to critical thinking and analysis. This presentation will showcase how our interdisciplinary approach integrates the different foci of Humanities, including science, and the social and political realities that generate them. Common denominator hermeneutical principles help students to think multilogically by empowering them to seek and assess understanding based on “reasoned” evidence in the classroom and to extend this understanding beyond academic environments.

DONLEY, JEFFERY, R.W.

Professor, IDS Honors Program, Valencia Community College

(Mini-Session) The Hermeneutical Worksheet *COLL*

The purpose of this mini-session is to help students develop dialogical thinking. Through the hermeneutical worksheet, the student identifies the various multilogical solutions to the issue(s) that have been suggested within the history of a particular discipline. Alternative proposals are treated as multilogical hypotheses to be tested by dialectical and dialogical thinking of the primary source data in nexus with the hypothesis.

- Students develop an openness to epistemological issues and alternatives from all sources of knowledge. They establish reliable criteria by which they evaluate truth claims. Students accept as true those hypotheses that are logically noncontradictory, factually adequate, and existentially viable.

- Students move from text to context. This movement from the "there and the then" to the "here and the now" is known as the principalizing bridge. The student relates what knowledge meant in its *Sitz im Leben* (setting in life) to what that same knowledge means to the student in his/her *Sitz im Leben*.

- Students develop a polyvalent or multilogical attitude.

DORMAN, WILLIAM A.
Professor of Journalism/Government, CSU Sacramento

MON 1:30; STEV 3008

RALPH JOHNSON
Professor of Philosophy, University of Windsor

Mass Media and Critical Thinking: Part I *Coll, Media*

In response to requests at past conferences, Dorman and Johnson will present two, back to back sessions on how mass media studies can be incorporated into critical thinking courses, or vice versa. The pair will share concepts and techniques developed over decades of teaching students to be more critical about their consumption of media. The first session will focus on theoretical concerns, insights into media practice and effects, and course design. Plenty of time will be available for questions and discussion.

DORMAN, WILLIAM A.
Professor of Journalism/Government, CSU Sacramento

MON 3:15; STEV 3008

RALPH JOHNSON
Professor of Philosophy, University of Windsor

Mass Media and Critical Thinking: Part II *Coll, Media*

This workshop will build on concepts and issues raised in the presentation immediately preceding through a discussion and demonstration of specific techniques and exercises useful for teaching about media in the classroom. Participants will be encouraged to share their teaching strategies and exercises as well.

DORMAN, WILLIAM A.
Professor of Journalism/Government, CSU Sacramento

SUN 3:15; SU 100

DONALD LAZERE
Professor, English Department, Cal Poly, San Luis Obispo

JONAH RASKIN
Associate Professor of Communication Studies, Sonoma State University

NORMAN SOLOMON
Media Critic

MARK LOWENTHAL
Assistant Director, Project Censored, Sonoma State University

Mass Media and the American Conversation: Perspectives on Power and Culture *Mid/High, Coll, Media*

The role of the mass media is difficult to ignore for anyone whose teaching is concerned with political, social and cultural questions in contemporary America. Norman Solomon, nationally syndicated media critic

and co-author of the recently published, "Through the Media Looking Glass", will join three veteran teachers and media scholars in a panel focusing on the impact of information media on the everyday dialogue that people have about public life. The panelists will consider controversies surrounding the performance of mass media, including journalism's purported political and social bias and its power to set the public agenda. There will be ample opportunity for audience participation.

DRESDEN, MAX
Professor of Physics, History of Science Department, Stanford University

TUES 10:30; DAR 139

The Notion of Proofs and Evidence *Sci, Coll, Adv*

The notion of "proof" is central to all scientific investigations. Similarly, the evaluation of social or educational changes is based on an assessment of the results of the innovations. It is therefore somewhat surprising that neither the notion of "proof" itself, nor the reliability and relevance of evidence have been subjected to detailed scrutiny. This presentation is designed to provide a detailed, critical analysis of the distinct often tenuous elements in the uses of proofs—as well as the trustworthiness of information.

Since proofs in the theoretical and experimental sciences, in psychology and medicine, differ enormously, methods and concepts in one area, cannot be carried over to others without great confusion. The techniques and procedures of obtaining and processing information also are quite different in the social sciences, in educational reform, in one legal practice. A "bare" statement "it has been shown that..." can be very misleading and create incorrect conclusions, leading at times to wrong policies. A large number of examples, illustrating these features will form the main topic of the discussion. Participants will be invited, urged to describe and analyze their own experiences.

ELDER, LINDA
Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

MON 1:30; CAR 68

Understanding Our Egocentric Nature: Is Yours Dominant or Submissive? *GEN*

The functions of the mind—our thoughts, feelings, and desires—are at any given time under the control of either our egocentric nature or our rational faculties. The egocentric nature of any one of us, developed for the most part during childhood, is essentially either dominant or submissive. In this session, focus will be on understanding the theoretical construct of egocentrism, delineating the differences between the dominant ego (which is typically male) and the submissive ego (typically female), discussing the powerful role of egocentrism in impeding the development of rationality, and providing effective strategies for reducing the power of egocentrism.

ELDER, LINDA

TUES 1:30; CAR 68

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Struggling Against Egocentrism: My Personal Journey *GEN, TACTIC/STRAT*

To become a rational person means to understand the concepts of critical thinking and then to apply them consistently in everyday life. As a theoretical matter it appears simple. As a practical matter it is extremely difficult. Why? We are, by nature, inherently drawn toward egocentrism; in other words, as humans, we possess an automatic mental mechanism which inclines us to seek pleasure and avoid discomfort of any kind. In this session, Linda Elder will briefly discuss the idea and theory of egocentrism; then she will discuss her own continual struggle with becoming a rational person. Dr. Elder will share strategies she finds useful for recognizing her own egocentric thinking, and for gaining rational control of it.

ELDER, LINDA

TUES 3:15; CAR 68

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

A Stage Theory of Critical Thinking in Adulthood *GEN*

Developed in collaboration with Richard Paul, Linda Elder will present a stage theory of critical thinking development in adulthood, contrast it with a parallel theory of intellectual development, and relate it to the affective dimension of thinking. The theory, originally presented at last year's conference, has been expanded and altered, with emphasis on the role of egocentric thinking in the development of critical thinking skills and abilities. This theory, developed as a conceptual tool, is useful as a monitoring template for students as they progress as critical thinkers.

ELDER, LINDA

WED 10:30; CAR 68

Assistant Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Critical Thinking and the Young Child *ELEM, TACTIC/STRAT*

Children relate to the world, just as adults do, through their thoughts, feelings, emotions and drives. This presentation, useful to both teachers and parents, will focus on how the cognitive and affective function of our minds heavily influences how we relate to children, how we react to them, and how productive those interactions will be; in addition, the session will emphasize the role of cognition and affect in how children relate to one another, to teachers, parents and to their own minds. Useful strategies for positively developing the affective and intellectual lives of children will be provided.

FAWKES, DON

MON 1:30; STEV 3046

Assistant Professor of Philosophy, Fayetteville State University

How to Teach Students to Distinguish Premises and Conclusions

TACTIC/STRAT, BEG, ADV, INF LOGIC

Some texts suggest teaching students to distinguish premises and conclusions by following rules for indicator words like 'since' and 'therefore.' This session explores why this approach is unwise and proposes an alternative—teaching the skill directly through active student participation. Participants will role-play the direct approach. VCR and overhead slides will be used.

FEARE, JOHN R.

WED 8:45; CAR 68

Fellow, Center for Critical Thinking and Moral Critique

Beyond Speechmaking and the Marketplace of Ideas: A Radical Transformation in Communication *H CON*

Much communication, public and private, amounts to little more than people making speeches at one another. In whatever setting (e.g., classrooms, offices, media) and in whatever form (meetings, forums, hearings) participants take turns proclaiming what they think and the encounter ends without any meeting of hearts and minds.

Based on the principles and practices of critical thinking, a method will be demonstrated which substantially improves the quality of discussions of all kinds, thus enhancing the pursuit of truth, the fundamental purpose of critical thinking. The argument will be presented also that the presumption that individuals can formulate informed opinions and judgments and make intelligent decisions after assessing information, claims, and ideas in the "marketplace of ideas" is faulty.

FEARE, JOHN R.

TUES 1:30; STEV 3072

Fellow, Center for Critical Thinking and Moral Critique

Critical Thinking Within a Theological Dimension *H CON*

The argument will be presented that human life exists for the noble purpose of "helping out the birth throes of creation and the continuation of life...furthering the life pulse of the universe itself" (E. Becker). This purpose, the ultimate referent against which all human behavior is evaluated, originates in the creative spirit (or God, life force...), the source of all life and meaning. Implementation of this theological perspective would necessitate the development of a communitarian society dedicated to the protection, unification, and enhancement of life. In any case, the absolutely serious question of the meaning of life must be raised at all levels of education, and that inquiry must be grounded in individual experience informed by soul-searching and rational and empirical criticism, i.e., critical thinking.

FINOCCHIARO, MAURICE A.

Distinguished Professor and Chair, Philosophy Department, University of Nevada Las Vegas

SUN 1:30; STEV 3072

Philosophy and Critical Thinking in Socrates, Galileo, and Marx *ADV, INF LOGIC, POL, H CON*

One approach to teaching and theorizing about critical thinking is to study great exemplars like Socrates, Galileo, and Marx. I plan to discuss this approach by reporting on a university course I have taught for 20 years and by formulating some conclusions and problems suggested by this kind of material. In the process, the critical thinking practice of these three exemplars will be related to several theories of critical thinking, such as those of Ennis, Garver, Lipman, Paul, and Scriven. The format of this presentation will be a 55 minute lecture followed by 30 minutes of questions and discussion; I will hand out a one-page outline of the lecture.

FONTEYN, MARSHA E.

Assistant Professor, School of Nursing, University of San Francisco

WED 8:45; DAR 112

Strategies for Improving Nurses' Clinical Reasoning Skills *COLL, HEALTH, NURS, TACTIC/STRAT*

This session will describe teaching strategies that are designed to improve student nurses' clinical reasoning skills. The strategies are based on what is known from research about how experienced nurses' reason in practice. This exemplar reasoning is contextually based, focused, and efficient. It includes the use of heuristics, such as: pattern recognition, questioning and anchoring. Teaching strategies that will be discussed focus on improving students' reasoning in the following areas: reflection in action, reflection on action, consideration of context, distinguishing significant data, and identifying patterns and relationships.

FRITZ-KELLY, SANDY RN. MSN. M ED.,

Associate Professor of Nursing, Delta College

TUES 10:30; CAR 68

Applying Critical Thinking Skills to the Complex Task of Delegating Nursing Care *NURS, HEALTH, COLL*

This interactive session is designed to explore ways of teaching the complexity of delegation by applying critical thinking skills. Delegation, as both a concept and process, is the responsibility of the registered nurse as to who, what, how and which tasks will be delegated. Without the understanding and incorporation of critical thinking skills, delegation is often based on personal traits and/or power struggles.

Students frequently find the process of delegation a threatening task, but through interactive scenarios, it allows them to critically reflect decisions within a less threatening environment.

GALVAN, GIUSEPPE AMEDEO

Visiting Professor, Humanities Department, Cety's Universidad-Tijuana

TUES 3:15; ART 108

Love Belongs to the Essence of Wisdom? Reflections about the Practical Dimension of Critical Thinking *COLL, TACTIC/STRAT, PSYCH, INF LOGIC*

- The integration of the insights of first and second wave research as a goal of the third wave is possible by a metaphysical and anthropological "mode of thinking."
- A rigorous metaphysics can diagnose the intellectualism, voluntarism, and psychologism that affected the first two waves.
- The therapy suggested is to rediscover a) the Socratic-Platonic doctrine about the practical dimension of knowledge, b) the use of will as love in every kind of knowledge (there is no wisdom without love of wisdom) and c) education as a dialogical act of love in a personal relationship between two concrete persons (love permit the trust necessary for teaching).
- A dialogical act of love is something more than an interaction between two persons where one of them speaks and the other hears. The pedagogical power of words is limited: words can be repeated or imitated; the thoughts conveyed by the words cannot: an "imitated" thought is not a *thought*.
- The integration between love and reason allows the acquisition of wisdom and from the standpoint of wisdom one can understand the interaction between a "logic of love" and the logic of reason as two different (but not contradictory) aspects of the logic of reality.
- Conclusion: a very "critical thinking" person can grasp the reality and promote the perfection of the "thinker" only if integrated with love. For this reason the intellectual life is intellectual because it is knowledge and it is life because it is love. And for this reason to teach thinking critically is interwoven with teaching to love in freedom.

GALVAN, GIUSEPPE AMEDEO

Visiting Professor, Humanities Department, Cety's Universidad-Tijuana

MON 10:30; IVES 35

Logic and Contents of the Common Sense (*Sensus Communis*) as a Solution of the Problems of a Multi-Cultural Society *COLL, TACTIC/STRAT, PSYCH, INF LOGIC*

- In the human knowledge there are some certainties that come from the experience as such and are motivated by the evidence.
- The contents of such certainties are: facts, the first speculative principles, and the first ethical principles.
- These certainties are connatural to the human intelligence and are a property of all the people.
- They are a constant among the differences of cultural and social conditions.

- This common base of the knowledge permits the intellectual communication among the individuals and the different cultures.

- The certainties of the "common sense" (we use the expression following the concept of *sensus communis* of Gianbattista Vico) are the conditions of possibility of the sciences both *ex parte objecti* (the objective premise of the investigation) and *ex parte subjecti* (the basic logical instruments and the motivations of the investigator).

- Questions concerning common sense, the logic of communication, and the logic of scientific investigation will be discussed.

- Conclusion: Teachers must recognize that critical thinking can be "critical" only if it considers the necessary presuppositions of common sense in the very base of every knowledge.

GARCIA, VICKY SUN 10:30; STEV 3049
Instructor, American Language Institute, San Francisco State University

NATASHA HAUGNES
Instructor, English/ESL Department, Academy of Art College

TRAINING ESL AND NATIVE ENGLISH SPEAKERS FOR CRITICAL PEER READING *LANG, TACTIC/STRAT, COLL*

For so long, we've been reading our students' essays, yet wonder why they can't write! In this participatory demonstration, the presenters will discuss the rationale for peer reading, the problems that arise when students aren't trained to read critically, and ten important guidelines teachers can follow to set up the activity successfully in ESL and composition classes. Using sample student essays, the presenters will then model techniques that teachers can use to train students to become critical readers and effective peer responders. These techniques will help students track the coherence of their peer's argument, question an argument's evidence or support and raise objections to it from other points of view, comment tactfully on vague ideas, and detect cohesive gaps rather than infer meaning that isn't there. The presenters will also introduce peer reading criteria sheets that help students internalize the standards for a well-written essay.

GIULIANO, JACKIE A. SUN 3:15; DAR 139
Adjunct Professor of Environmental Studies, Antioch University, Los Angeles

Challenging our Perception of our World: Merging Ecology and Psychology into "Ecopsychology" *PSYCH, ENV, MUL-CULT, SOCIO*

Including the examination of environmental factors in psychotherapy demonstrates the powerful interconnectedness that exists between humans and the rest of the world. The traditional Western cultural view that places humans separate from, and in control of, the world and considers all that is non-human as inferior needs to be reconsidered and challenged. These connections can be seen only through application of practices of critical thinking to encourage the questioning of fundamental assumptions. In this

workshop, we will explore how to enhance modern psychotherapy to encompass awareness of the Earth as a living system and humans as organisms that are deeply connected to that system. We will examine the challenges that exist in trying to awaken awareness and explore ways to challenge the assumptions of Western medicine and culture.

GIULIANO, JACKIE A. SUN 1:30; DAR 139
Adjunct Professor of Environmental Studies, Antioch University, Los Angeles

The Environmental Studies Curriculum as a Vehicle for the Introduction of Feminist Philosophies and Spirituality into the Classroom *ENV, FEM, SOC STUD, TACTIC/STRAT*

The goal of the ecofeminist and modern day radical feminist movements is more than the attainment of equal "rights" and "status" for women within the existing power structure. The larger objective is to achieve a redefinition and restructuring of the current social system to allow for a variety of roles based on the strengths and gifts of the individual and the concepts of personal empowerment and interconnectedness. These goals are in perfect harmony with what many believe is the fundamental aim of the environmental movement: to foster an understanding of the Earth as a collection of interconnected living systems, each dependent upon one another to survive. Curricula in Environment Studies provide an ideal vehicle for the infusion of these principles into the educational system. In addition, these curricula can address the reintegration of science, technology, and environmental understanding with ethics, values, and emotions. Key courses can be developed to provide future environmental managers and technicians with the tools that will be needed as humans enter the next century and take those first, uncertain steps toward true environmental and societal awareness. The author is exploring these principles and developing environmental studies curricula sensitive to these issues as part of a doctoral program.

GIULIANO, JACKIE A. MON 3:15; IVES 35
Adjunct Professor of Environmental Studies, Antioch University, Los Angeles

The Development of Social Responsibility and Environmental Awareness Through Techniques in Critical Teaching - A Community Involvement Approach *TACTIC/STRAT, ENV, POL, BEG*

If our educational system is to be successful in producing critically thinking and reasoning individuals capable of contributing to complex societal issues, then the development of social responsibility and environmental awareness in today's student population is of paramount importance. These skills are not second nature to most and are difficult to teach in a non-experiential environment. The application of action oriented, community involvement projects that take the student to the immediate application of classroom learning can be quite effective.

In a course the author has designed and taught at Antioch University, Los Angeles entitled "Community Action and Social Responsibility," the students' concept of social responsibility is developed, their awareness of environmental problems heightened, and their critical thinking skills enlarged through direct involvement in active, controversial issues (our definition of "environment" is very large and includes essentially everything from abused women to the ozone layer). They are provided an understanding of the tools that are available to effectively involve themselves in social and environmental issues and each student selects a current issue and develops a campaign to pursue some aspect of that issue. Each students' project has to include a thorough discussion of the issue, including other points of view, a precise statement of their position on the issue, and a campaign for action that includes their objectives, how they would solicit support, their information dissemination plan, media utilization plan, and follow-through actions. Everyone carries out as many of their actions as feasible within the time frame of the quarter.

Participants in the session will be asked to develop an action oriented project of their own, thus identifying with the process and excitement experienced by the student. Techniques will be shared to help the instructors to develop the framework for the course project and to help explore techniques for the implementation of this approach in the classroom.

GOTTESMAN, LES TUES 1:30; STEV 2006
Dean of Arts and Sciences, Golden Gate University

Toon Logic III BEG, INF LOGIC, TACTIC/STRAT

Back AGAIN by popular demand! (If you fall for that, you need this workshop!) EVERYTHING you ever wanted to know to think critically, non-fallaciously, deductively, inductively, hypothetically, ethically, post-modernistically, and cyberspatially—presented in SIMPLE CARTOON FORM! If you believe that...

GOTTESMAN, LES TUES 3:15; STEV 3040
Dean of Arts and Sciences, Golden Gate University

What is Hermeneutics and is it Critical? COLL, POL, LANG, SOCIO

Hermeneutics tries to answer the question, what does it mean to "understand"? Once an arcane sub-specialty of Biblical studies and philology, hermeneutics in the last 30 years has quietly influenced theories and practices in history, sociology, anthropology, literary studies, science, politics, and even business. Should critical thinkers "do" hermeneutics? Can hermeneutics—which "rehabilitates" concepts of "authority" and "prejudice"—expose ideology, unmask deception, and challenge oppressive

inequality? Or bring the persuasive power of images, metaphors, narrative, and symbolic action into critical focus? Let's consider these issues with little jargon and lots of examples.

GRATTON, CLAUDE SUN 10:30; DAR 112
Assistant Professor of Philosophy, Philosophy Department, University of Sudbury

Critical Thinking's Contribution To Psychological Health TACTIC/STRAT, INF LOGIC, COLL, MID/HIGH

The author argues that one way to motivate students to (i) learn critical thinking skills and attitudes, (ii) transfer these skills to everyday life, (iii) evaluate seriously their own beliefs, and (iv) diminish their fear of having their beliefs evaluated by others, is to teach them how to use critical thinking skills to enhance or maintain their psychological health and well-being. He then describes a pedagogical strategy to teach this new application of critical thinking skills.

GRATTON, CLAUDE TUES 1:30-2:10; IVES 119
Assistant Professor of Philosophy, Philosophy Department, University of Sudbury

(Mini-Session) A Game of Posing Critical Questions While Watching Television INF LOGIC, GEN

The author presents a simple game to help students to transfer critical thinking skills to television programs, and to practice raising the kinds of questions that maintain active and critical listening. He will distribute a partial list of such questions. The gist of the game is that an instructor stops a videotaped debate at pre-selected places, and asks students what critical question(s) they should raise at that point of the discussion. The instructor and students compare, contrast, and evaluate the questions, and then they attempt to answer them. If a student has a critical question in mind at any point of the taped debate and the instructor fails to stop the video at that point, the student can immediately tell the instructor to stop the videotape; once it is stopped, the instructor and the other students must identify the critical question(s) that they should have raised.

GRIFFIN, MICHAEL A. TUES 1:30; STEV 3040
Assistant Professor of Communication, Communication Department, University of Guam

Critical Thinking: A Practical Guide ADV, MID/HIGH, COLL

This participatory workshop will offer a systematic guide for conceptualizing problematic situations. The guide is based on Dewey's *Reflective Thinking Sequence*. As such, it attempts to get the user to systematically analyze, synthesize, generate hypotheses, and evaluate the information gathered. The model emphasizes the notion that a problem needs to be accurately defined if a solution is to be reached that solves the problematic situation.

HALUZA, HERMAN

MON 10:30; STEV 3049

Lecturer, English, California State University, Hayward

Literature and the Writing Curriculum COLL, ARTS, TACTIC/STRAT

Though a paper will have been written for this session, the format will be discussion focusing on the importance or non-importance of using literature in the teaching of writing. We will examine such questions as: What really is literature? Is literature being discarded by educators in the name of so-called no-nonsense type essays? And of course most importantly, how does critical thinking fit in with literature? Better yet, can there be critical thinking without literature? Though the pedagogy of writing will be a concern, crossing boundaries will be a goal: thus, we welcome all disciplines

HANFORD, GEORGE H.

TUES 10:30; IVES 35

President Emeritus, The College Board

Observing an Element of Critical Thinking? GEN

This session will be devoted to helping a long-time pragmatic believer in critical thinking get his head on straight about what "observing" is and about whether whatever it is or is not a part of critical thinking. The first few minutes will be devoted to a brief explanation of what he thinks it might be and how that relates to critical thinking. The rest of the time will be used to find out what the participants have to say about the questions raised in that introduction. For instance, is "observing" the first step in the thinking process?

HART, THOMAS

SUN 3:15; STEV 3040

Assistant Professor, English Department, Patten College

REBECCA SKAGGS

Professor of Philosophy and New Testament, Patten College

Integrating Critical Thinking at a Christian College COLL, BEG, LANG, MUL-CULT

Educators at Christian colleges sometimes claim the advocacy of critical thinking to be inappropriate, even dangerous, to their enterprise of faith and learning. In secular colleges issues of faith may be routinely excluded from approaches to learning. At Christian colleges, however, problems of integrating critical thinking into a course or curriculum can be exacerbated when students in a religious setting fall back to the literal contexts of fundamentalism and "either-or" thinking. Is it the fact that critical thinking and religious belief are opposed? Indeed, what role does critical thinking play in faith, anyway? Presenters will argue that in fact critical thinking is essential to faith and that the two can work together harmoniously, as opposed to arguments by Christian educators which claim that integrating critical thinking in a Christian college curriculum is not desirable. Presenters will engage participants in the questions and possible synthesis between the antithetical opposites created between faith and reasoning.

HATCHER, DONALD

Director, Center for Critical Thinking, Baker University

TUES 1:30; ART 108

LUCY PRICE

Chair, English Department, Baker University

Combining Critical Thinking and Written Composition: The Whole is Greater Than the Sum of the Parts COLL, STAFF DEV, TEST

Baker faculty will discuss and share assessment results of Baker University's two-semester freshman sequence that integrates instruction in critical thinking and written composition. The idea behind the new sequence is that students can become better writers if they first are better thinkers and readers. Critical thinking skills can provide students with powerful strategies for developing their ideas in all forms of expository writing. The presentation will focus on the genesis of the new program, the organization of its textbook, the application of critical thinking skills to expository writing, ways for continued faculty development, and the program assessment techniques used to evaluate the program. Because the program was developed through two grants from the U.S. Department of Education's Fund for the Improvement of Post-Secondary Education (FIPSE), and now supported by grants from the Hall Family Foundation, the panel members will make suggestions on ways to enhance one's odds for outside funding. Because assessing the outcomes of any program is important, the presenters invite others to administer similar pre and post tests in their critical thinking courses and compare results.

HATCHER, DONALD

Director, Center for Critical Thinking, Baker University

MON 10:30; ART 108

Three Theories of Rationality: Implications for Educational Practice TEST, TACTIC/STRAT, INF LOGIC, COLL

This paper examines three theories of rationality: foundationalist, contextualist, and critical rationality. The point of the examination is to show that how a teacher understands rationality has significant consequences for how one teaches. I will close by arguing that, while good things can be learned from the foundationalist and contextualist approaches, critical rationality is educationally superior.

HAYNES, JARED

Lecturer, English, University of California, Davis

WED 8:45; STEV 3008

The Writing Strategies of College Students: Reflections of Cognitive Development COLL

Research has shown that college students move through recognizable stages in their thinking strategies from the time they enter the university to the time they graduate. This session will first present three major studies that help sum up how the research on students' cognitive development has developed: Perry's study in the 1960s on male college students, Belenky and

her colleagues' study in the early 1980s on women college students, and Baxter Magolda's study in the late 1980s on a mixed population. The strong similarities and increasing sophistication of these studies will be emphasized. Then participants will be asked for input on what they have observed in their students' writing strategies and attitudes and we will discuss how these attitudes may reflect particular stages in the development of students' thinking abilities. Finally, we will look at teaching strategies that should encourage the improvement of both their thinking and writing.

HAYNES, JARED TUES 3:15; STEV 3008
Lecturer, English, University of California, Davis
Designing Writing Assignments that Foster Critical Thinking COLL, BEG, TACTIC/STRAT

Students move through recognizable stages of cognitive development as they mature, confront new ideas, learn how to gain knowledge, and develop standards for reasoning. Teachers often work against this development by assigning writing tasks that serve only to evaluate, not to teach. However, writing assignments can be designed to foster critical thinking by building carefully considered tasks into the assignments that challenge students' abilities to process information and see it in new ways.

This presentation will offer a variety of ways to structure writing assignments to help students develop their thinking abilities. We will also discuss what ought to go on an assignment handout. There will be plenty of opportunity for participants to offer input.

HAYNES, JARED MON 10:30-11:10; IVES 119
Lecturer, English, University of California, Davis
(Mini-Session) The Exploratory Paper: Prelude to Argument COLL

The purpose of this mini-session is to help students suspend judgment until they understand an issue. Students have a tendency to want to argue positions that they have not yet thoroughly thought out and that are grounded in assumptions and biases of which they are unaware. Before making an assignment that asks them to research a position and argue it, they can be asked to write an exploratory paper. This paper has no thesis or position to defend. Instead, it explains the issue, explores neutrally the different arguments others have made on the issue, and shows how these arguments have answered or failed to answer each other. This assignment should lead to students learning how to suspend their judgment, remain open-minded, and look at several sides to the issue in question. They can then employ these strategies in an argument paper in order to present a fair-minded position.

HAYNES, JARED SUN 1:30-2:10; IVES 119
Lecturer, English, University of California, Davis
(Mini-Session) Commenting on Student Writing HIGH, COLL

The purpose of this mini-session is to help students think about what to do for the next stage of a writing task or sequence. When teachers comment on student papers, often the easiest strategy is to "correct" the paper by editing the writing and telling the student what should have been said. This correcting, although time-consuming, is easy because as teachers we have definite ideas about how a particular argument or report ought to go. But correcting doesn't help the student to learn; if they have a chance to revise, they will simply copy what the teacher has written for them. A less time-intensive strategy, although a more challenging one for both teacher and student, is to ask specific kinds of questions or give reader-based feedback that shows the student where the reader is likely to go astray or where evidence is inadequate, rather than telling the student what they should have done. This strategy means that the student must struggle with solving problems in the draft rather than just "get the answer" from the teacher.

HEASLIP, PENNY WED 10:30; DAR 108
Instructor, Nursing Department, University College of the Cariboo
Paradigm Shift in Nursing Education: Curriculum Reform in Action COLL, FEM, STAFF DEV, NURS

In 1989, nurse scholars wrote about a visionary change for nursing education. A change so fundamentally deep that it would necessitate a paradigm shift in how educators taught nursing. Scholars such as Em Oliva Bevis, Jean Watson, Joyce Murray and Christine Tanner initiated the call for action currently known as the Curriculum Revolution. This paradigm shift has as its central focus caring as ethical practice and reflective, critical thinking. Heeding the call for action five universities and colleges in British Columbia formed a partnership to develop a Collaborative Curriculum. This exciting project has embedded in its program goals the development of independent, self-directed, critical thinking nurses. Nurses who are rigorous in their commitment to reflective practice. The British Columbia Collaborative Project is now a partnership of ten institutions all committed to developing critical thinking nurses. Learn how educators and students in these programs have made critical thinking and caring the core of nursing education and practice.

HEASLIP, PENNY TUES 1:30; STEV 2049
Instructor, Nursing Department, University College of the Cariboo
Classroom Assessment of Critical Thinking Learning Activities COLL, BEG, TEST, NURS, TACTIC/STRAT

The ability to stimulate the development of critical thinking in student interactions rests on rigorous evaluation of the quality of the assigned learning activity. This session addresses the necessary criteria that learning

activities must reflect if they are to promote critical thinking. The session examines the difference between interactive learning that is simply enjoyable classroom interaction and activities that promote depth of thinking, adherence to intellectual standards and rigorous scholarship in discipline specific fields such as nursing. Continuous assessment of the quality of thinking occurring in the classroom is the central focus of exemplary classroom; the classroom infused with critical thought.

HEASLIP, PENNY **TUES 3:15; IVES 34**
Instructor, Nursing Department, University College of the Cariboo

NLN Site Visit: The Essential Elements *COLL, STAFF DEV, TEST, NURS*

Preparing for an NLN site visit is an intellectually challenging experience. Whether you are an NLN visitor to a school of nursing or an educator anticipating an external evaluation team visit to your school; it is essential that you prepare effectively for your role in the Approvals process. This session addresses how a comprehensive, deep understanding of the theory of critical thinking can serve as a framework for evaluation of the effectiveness of nursing curricula. The session addresses the questions faculty and visitors should consider in preparation for site visits. Participants will have an opportunity to debate the advantages and disadvantage of common research approaches for outcome evaluation of critical thinking. Comprehensive, rigorous examination of nursing curricula will create nursing programs and nurse graduates that have deep conceptions of what it means to be a critical thinker.

HERSCHELMANN, KATHLEEN **SUN 3:15; STEV 3008**
Associate Professor of Management, School of Business, Madonna University

Critical Thinking in International Trade—Using a Format Adaptable to Other Disciplines *HIGH, COLL, BUS, TACTIC/STRAT*

Presented here last summer was the research and planning design for a Title VI project on how students at the high school and college level could gain initial awareness and solve problems in international trade by using critical thinking. This past year ten modules and a faculty in-service were developed and tested in six public school systems and two universities in the metropolitan Detroit area.

The modules are "student friendly" and range from "Should Adam Smith Stay Home? Trade Integration vs. Trade Isolation for the U.S.?" to "What Role Does Culture Play in International Business?" While schools piloted the modules, other interested faculty members began adapting the format to their specific disciplines, and the versatility of teaching critical thinking in this manner was developed. Session participants will be invited to go through a module segment using one of the videos especially produced for the project. Richard Paul was the chief consultant on the grant.

HERSCHELMANN, KATHLEEN **MON 11:20–12:00; IVES 119**
Associate Professor of Management, School of Business, Madonna University
(Mini-Session) Writing Modules Using Critical Thinking as a Base
MID/HIGH, COLL

The purpose of this module is to have students use the elements and the standards of critical thinking as they solve problems. In developing the Madonna University Title VI International Trade Project for upper high school and beginning college students, a format was devised for the modules that is transferable to other curriculum areas. By having the students answer several sub-questions through critical thinking and then tying the final experience to the main question of the module, students assess their own critical thinking skills. (This two-year project was completed in June 1995 with Richard Paul as chief consultant.)

HICKCOX, LESLIE K. **SUN 10:30; ART 108**
Associate Faculty, Department of Human Studies, Marylhurst College

Developing Problem-Solving Skills through Kolb's Experiential Learning Cycle *COLL, TACTIC/STRAT, BEG, SCI*

The research and experience of educators applying experiential learning theory in and out of the classroom are showing positive learning results. The majority of research on Kolb's experiential learning theory between 1971-1990 demonstrated support for the theory (Hickcox, 1991). Kolb's experiential learning theory has been researched and applied in over 30 academic fields in higher education throughout the past 20 years. This workshop initially outlines the theoretical framework of Kolb's experiential learning theory. The theory of experiential learning promotes the student as an individual who is responsible for her/his learning, as much as the teacher is responsible for the learning environment. Development of the individual is particularly acknowledged through Kolb's learning style model, the Learning Style Inventory and Kolb's formulation of the learning cycle. The learning cycle was originally proposed by John Dewey. It has been found that the learning cycle tends to promote thinking, communicating and problem solving skills.

The second half of this workshop focuses on the problem solving skills which are developed through the use of the learning cycle in and out of the classroom. Each participant will experience problem solving skills through the application of a questioning process, lower and higher level brain functioning according to approaches used in the classroom, and the learning environment which promotes higher level problem solving skills. In summary, this workshop will demonstrate how Kolb's experiential learning cycle promotes problem solving skills.

HOOPER, WILLIAM L.

MON 3:15; STEV 3046

Professor of Music, Music Department, Southwest Baptist University

Thinking Critically in the Fine Arts *COLL, ARTS, TACTIC/STRATCOLL*

This session addresses the ways in which critical thinking can be brought into the instruction of fine arts in the general education class. Participants will participate in a typical classroom critical thinking exercise. Open discussion will revolve around two possible directions of research and practice in the future: (1) to what degree does and can critical thinking in the arts impact human feeling and symbolization? (2) Can critical thinking in the arts develop the musical and spatial intelligences as theorized by Howard Gardner?

HOOPER, WILLIAM L.

TUES 10:30-11:10; IVES 119

Professor of Music, Music Department, Southwest Baptist University

(Mini-Session) Thinking About Paintings *COLL, ARTS*

The purpose of this mini-session is to help students use critical thinking in painting analysis. In the fine arts class students are asked to make analyses of paintings. Consequently, it is necessary for them to go beyond a mere description of what is seen. The questions asked by the instructor are designed to help students think about possible meanings of the painting.

HUGHES, GAIL

TUES 10:30; IVES 34

Coordinator of Program Evaluation, Minnesota Community College System

MARGARET BORDEN

Developmental English Instructor, Willmar Community College

SANDRA KAPLAN

Central Lakes College

JUDY NELSON

Speech and Communications Instructor, Itasca Community College

Conducting and Assessing Critical Thinking Interviews: Excerpts from Interdisciplinary Areas, Developmental Education, and Biology *TEST, COLL, STAFF DEV, INF LOGIC*

This session will present work in progress to develop a valid, reliable, and useful adaptive interview procedure to assess students' critical thinking proficiency as applied to academic subject matter relevant to students' personal lives, their roles as citizens, and their anticipated careers. Groups of faculty are constructing interviews for biology, English, nursing, developmental education, and interdisciplinary subject areas. Although the topics students discuss vary according to discipline, the interviews will be rated according to a common, cross-disciplinary scoring guide.

The session will open with an overview of the project, followed by short demonstrations from three subject areas. Faculty presenters will play excerpts from tape-recorded interviews they conducted with students. The audience will be invited to assess the students' performance according to the cross-disciplinary scoring guide and to provide feedback on the procedure.

JANSON, P.J.

TUES 11:20-12:00; IVES 119

Assistant Professor of Music, Augustana University College

(Mini-Session) Critical Thinking in Music History Courses *COL, BEG, ARTS*

Music history courses involve an understanding of historical developments, as well as an aural acquaintance with musical compositions. The common perception is that the bi-focal character compels the instructor to make the most of the time available, as there is so much material to cover. In view of this, is it possible to structure music history courses so that they foster critical thinking skills in music?

The mini-session presents course outlines, used during the 1994/1995 academic year, which aims to incorporate some methodologies that foster critical thinking in (a) a Music History Overview Course, and (b) a Period Music History Course. Syllabi used in the actual courses, together with other supporting materials, will be available.

JOHNS, DONALD

SUN 3:15; DAR 112

Lecturer, English Department, University of California, Davis

Literature, Empathy, and Critical Thinking *TACTIC/STRAT, COLL, MID/HIGH, MULTICULTMID/HIGH, COLL*

The rationale for this session rests on four ideas: 1) Empathy is an essential element in critical thinking. 2) The study of literature can promote greater empathy with people living in diverse circumstances. 3) Introductory courses should begin with carefully constructed activities appropriate to students' developmental levels, activities encouraging students to articulate and examine their responses to literature, particularly their deeply held preconceptions about characters whose thoughts and actions arise from disparate situations. 4) Specialized disciplinary knowledge such as critical theory and terminology, while important, should play a secondary role to the study and development of student response. We will closely examine one or two short poems, synthesizing elements of Richard Paul's Socratic discussion strategies with reader-response activities suggested by the work of Janet Emig, Peter Elbow, and Louise Rosenblatt. This will be a participatory workshop beginning with a brief presentation of the rationale followed by writing, small-group work, and general discussion.

JOHNS, DONALD

Lecturer, English Department, University of California, Davis

WED 8:45-9:25; IVES 119

(Mini-Session) Identifying Central Passages in Essays or Stories *MID/HIGH, COLL*

When discussing an essay or story, class members need to have some common ground for discussion, some understanding of what others think is important in the text and why. Such understanding will emerge, more or less, from most discussions, and it may be expedited with discussion questions. However, such questions can impose an editor's or teacher's viewpoint on a discussion from the outset, shutting off much of a student's response.

We need to find ways to let student responses to a text emerge on their own into a setting where they can be tested and developed in response to those of others. At the same time, we can seldom rely on a free-form discussion to bring about sufficient self-reflection and dialogue.

I ask students to identify what they think is the central passage (a sentence or two) in the story or essay and to write for 10-15 minutes exploring and explaining their responses. I then ask them to exchange what they have written with a classmate and write a response. Depending on time available, I may have the pairs move into groups of four and discuss their responses or I may have students read their responses aloud to the class to elicit general discussion.

JOHNSON, BEN E.

Executive Director of the Education Foundation, The Education Foundation

MON 10:30; WARREN

No Longer Preaching to the Choir: "SARASOTA THINKS," the Nation's First, Week-long, County-wide Thinking Festival Designed for the Public

STAFF DEV, BEG, ADV

When are we going to take critical thinking out of the classroom and begin bringing it to the attention of the public so that the public can learn to think critically and begin to reinforce and support the efforts of teachers who teach thinking? How about now? Is the general public (parents, students, business people, senior citizens, philanthropic organizations, human resources agencies, and in short, every person and organization in our communities) ready for a seven-day, county-wide, days-and-evenings, thinking festival complete with presentations by world-class celebrity thinkers and hundred of discussions, workshops, and events focusing on thinking, reasoning, creating and learning? They were in Sarasota County, Florida, June 11-17, 1995, during SARASOTA THINKS [the festival] when thousands of county residents and visitors celebrated the importance of stirring up thinking and supporting the teaching and learning of critical thinking in every area of living, learning, working, and creating. The first ever county-wide

(four cities, 300,000 residents) thinking festival in the world was such a success that it has now been established as an annual event in Sarasota. What's more, dozens of other cities and counties are now seeking information from festival organizers about guidelines for conducting their own version of SARASOTA THINKS. Entirely supported by community and business contributions and by hundreds of volunteer workers, SARASOTA THINKS appears to be a workable model for generating massive grass-roots support for teachers teaching critical thinking in the public schools while actively reinforcing that same teaching and learning outside of the classroom at home, work, and play. How did this first ever community thinking festival come about? History, details, answers to questions, handouts provided.

JOHNSON, BEN E.

Executive Director of the Education Foundation, The Education Foundation

MON 3:15; WARREN

How We Did It: Sarasota's Unique Plan for Motivating and Training 2000 Thinking Skills Teachers *K-12, STAFF DEV, BEG, ADV*

For the past three years, all 2000 teachers in the 39 Sarasota (Florida) County Public Schools have been receiving extensive training in methods of teaching thinking under a unique teacher training program developed by The Selby Chair for Academic Enrichment. One of the most unusual aspects of this training is that it is totally *voluntary*, yet two-thirds of all Sarasota teachers have participated in the past two-and-a-half years! In fact, requests by teachers to participate in the training were so numerous that some sessions and summer institutes had to be limited to 250 participants at a time. Further, those 250 participants were always selected on a quota system at each school so that each person became part of a training team to go back to his/her school to train other teachers. This session discussed how all this was accomplished and the amazing community response.

JOHNSON, BEN E.

Executive Director of the Education Foundation, The Education Foundation

TUES 1:30; WARREN

A Successful Private Funding Model for District-Wide Teacher Training in Thinking Skills: Sarasota County and the Selby Chair in Critical Thinking *K-12, COLL, BEG, ADV*

Can a private foundation be persuaded to fund a five-year, 450,000 training program in critical thinking for 2000 district teachers? Can that foundation along with other organizations and businesses in the school district also be convinced of the need for supporting and funding an on-going, unique, teacher training and enrichment program that results in a week-long community-wide festival that celebrate good thinking? Yes. It's being done in Sarasota County, Florida. This session describes and explores the creation and private funding of a highly successful program providing Sarasota

County Public Schools an "at-large," teacher training and staff development program designed to supplement existing professional development efforts of school district trainers. Through the combined efforts of educators, community members, The Education Foundation, and The Selby Foundation, a unique public school chair in critical thinking has been established under an unusual funding and operating arrangement. This chair, The Selby Chair for Academic Enrichment, a little known treasure in public education, is now in its seventh year.

JOHNSON, RALPH H.
Professor of Philosophy, University of Windsor

WED 10:30; STEV 3072

The Principle of Vulnerability *ADV, INF LOGIC, COLL*

This paper seeks to articulate and defend a principle of argumentation criticism, which is that every argument is susceptible to criticism and hence the arguer must not seek to immunize the argument from criticism. I begin by very briefly outlining my theory of argument and how I distinguish between evaluation and criticism. In Section II, I articulate the principle and identify some violations of it. In Section III, I turn to the matter of its justification. In Section IV, I take into account some objections to the principle. Section V is my conclusion.

JOHNSON, RALPH H.
Professor of Philosophy, University of Windsor

TUES 1:30; SU 100

RICHARD PAUL
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

CONNIE MISSIMER
Author

ANNE M. PHELAN
Professor of Education, Teacher Education and Supervision Department, The University of Calgary

Re-Thinking Reason (Panel Discussion) *GEN, INF LOGIC*

Is an informal logic approach to critical thinking too narrow? Is there a 2nd wave of theoreticians leading the way to a more comprehensive and more defensible conception of critical thinking? Kerry Walters in his anthology (*Re-Thinking Reason: New Perspectives in Critical Thinking*, SUNY Press) argues for a two-wave interpretation of critical thinking history. The first wave he understands as based on informal logic; the second he understands as critiquing the narrowness of informal logic. His anthology is an assemblage of articles representing those whom he identifies as second wave theoreticians. In this session, Richard Paul, Connie Missimer, and Anne M. Phelan will participate in a panel discussion on the approach of the Kerry Walters book

(in contrast to that of the conference theme article which criticizes the 2nd wave and advocates a 3rd wave and in relation to whatever other perspectives the panelists bring to the discussion).

JOHNSON, RALPH H.
Professor of Philosophy, University of Windsor

TUES 3:15; WARREN

MAURICE FINOCCHIARO
Distinguished Professor and Chair, Philosophy Department, University of Nevada Las Vegas

JERRY CEDERBLOM
Professor of Philosophy, University of Nebraska at Omaha

CLAUDE GRATTON
Assistant Professor of Philosophy, Philosophy Department, University of Sudbury

Panel on Informal Logic *GEN, INF LOGIC*

The panelists will discuss the following questions:

- (1) How do you understand informal logic and its relationship to critical thinking?
- (2) Comment on "Critical-Thinking: the State of Education Today, and the Goals of the 15th International" by Richard Paul, especially his views on the development of research on informal logic and critical thinking (1st, 2nd and 3rd waves).
- (3) Comment on Paul's proposal for the broadening of logic.

JONES, SANDRA A.
Dean, School of Nursing, Aurora University

TUES 3:15; DAR 112

LYNDA N. BROWN
Consultant, Nursing Education

Creating an Agenda for Critical Thinking in Nursing Education: Out of the Past, Into the Future *NURS, HEALTH*

Historically, nurse educators rarely integrated critical thinking into its educational model. Rather, the focus was centered on legitimizing nursing as a profession. Recently, with the nearly universal attention on critical thinking in academe, nurse educators have questioned the relevance of the scientific model for nursing education and began considering alternative models for thinking that reflect the non-linearity of major elements of nursing education and practice. This presentation will offer participants the opportunity to consider several propositions which challenge extant nursing education models and invite analysis of alternatives to integrating critical thinking in nursing education.

KASSEM, CHÉRIE L.

SUN 1:30; STEV 3049

Assistant Professor, Education, Piedmont College.

Critical Thinking and Early Childhood Education: Design for a Master's Level Course on Critical Thinking and Creativity in the Classroom *ELEM, COLL, TACTIC/STRAT*

The purpose of this workshop is to present and discuss the design of a master's level course in critical and creative thinking for early childhood education majors. The presentation will include: the mission, foundations, and structure of the M.A.T. program; the assumptions undergirding course development; course goals and instructional objectives; course instructional materials; course requirements, selected instructional strategies, and sample course tasks/assessments.

Participants will have the opportunity to practice selected tasks and will be encouraged to ask questions and/or provide feedback regarding instructional design.

KATAOKA-YAHIRO, MERLE

SUN 3:15; DAR 122

Assistant Professor, School of Nursing, San Jose State University

KATHERINE ABRIAM-YAGO, ED.D.

Assistant Professor, School of Nursing, San Jose State University

The Use of Mentoring and Role-Modeling with Nursing Students: An Application of the Critical Thinking Model for Nursing Judgment *NURS*

This is a workshop on the use of mentoring and role-modeling with nursing students based upon the application of the Critical Thinking Model for Nursing Judgment. The Critical Thinking Model for Nursing Judgment includes five components: specific knowledge base, experience, competencies, attitudes, and standards. The model includes three levels of critical thinking which are basic, complex, and committed. Based upon this model, the workshop will emphasize and apply three of the components: competencies, attitudes, and standards. To help nursing students improve on their critical thinking abilities, these three components are essential when using mentoring and role-modeling techniques.

KEELEY, STUART M.

MON 10:30; CAR 68

Professor of Psychology, Bowling Green State University

Coping with Student Resistance to Critical Thinking *TACTIC/STRAT, COLL, BEG, SOC STUD*

Teachers embracing critical thinking as a classroom objective must face a major obstacle—student resistance to change. The typical learner feels the need for change, yet wishes to remain as is when faced with a learning approach that threatens his/her present attitudes and behavior. How can teachers overcome student resistance? The psychotherapy literature gives us

some important insights, because therapists must address analogous kinds of resistance and have written extensively about efforts to do so. This workshop illustrates how insights borrowed from the psychotherapy literature can help teachers overcome student resistance to critical thinking. Workshop participants will be asked to generate kinds of resistance they have encountered in their own classrooms. I will then share a list of ideas about how to overcome resistance; which is stimulated by investigating the psychotherapy literature on resistance. Participants will also be asked to share anti-resistance strategies that they have found to be helpful.

KELLER, ROSEMARY

MON 10:30; STEV 3008

Education Specialist, Patient Education, St. Joseph's Hospital

Development and Implementation of a Hospital Based Critical Thinking Program *NURS, HEALTH, STAFF DEV, TACTIC/STRAT*

This session will describe the process of developing and implementing a hospital based critical thinking program for nurses and provide nurse educators with several experiential interactive learning activities designed to elicit critical thinking skills. The program was based on Paul's model of critical thinking including elements, standards, dispositions and skills. Several teaching strategies utilizing case studies, case scenarios, video simulations, role playing and news media critique will be shared. The facilitator will model the use of these teaching strategies and guide participants through analysis utilizing specific questions designed to elicit critical thinking processes.

KERWIN, ANN

TUES 3:15; STEV 2006

Philosopher-in-Residence, Curriculum on Medical Ignorance, University of Arizona

JUDY NELSON

Speech and Communications Instructor, Itasca Community College

Thinking Passionately: Ignorance, Critical Thinking, and the Reluctant Student *COLL, TACTIC/STRAT, MID/HIGH, BEG*

Teachers who are passionate critical thinkers may be frustrated by students who seem allergic or averse to critical thinking. Two college-level teachers who have "lured" some (but we confess—not all!) resistant students into critical thinking will share several techniques for helping students identify their passions, and then using these as vehicles for developing inquiry, critical and creative thinking, planning, and communication skills. In this participatory session, Judy Nelson (Writing and Communication, Itasca Community College, Grand Rapids, Minnesota) and Ann Kerwin (Philosopher-in-Residence, Curriculum on Medical Ignorance, University of Arizona) demonstrate several "ignorant," "passionate" curricular experiments; they recount how passion ignited critical thinking and critical thinking became a passion for some initially-reluctant students.

KERWIN, ANN

WED 10:30; STEV 1002

Philosopher-in-Residence, Curriculum on Medical Ignorance, University of Arizona

MARYLS WITTE, M.D.

Professor of Surgery, University of Arizona

CHARLES WITTE, M.D.

Professor of Surgery, University of Arizona

Don't Vanquish Ignorance...Use It Well! *COLL, MID/HIGH, HEALTH, NURS*

Education cannot vanquish ignorance. For one thing, learning itself presupposes ignorance (we cannot learn what we already know!). Further, as Pascal noted, as the sphere of our knowledge expands, so does our contact with the unknown. Ignorance—understood as “the unknown” and as “our awareness of not-knowing”—helps and harms us. While we cannot eliminate ignorance, we can use it to fuel learning. In this participatory session, the founders of the innovative Curriculum on Medical Ignorance at the University of Arizona College of Medicine share techniques for transcending the tyranny of the known and using ignorance if not fully, fruitfully—to help students question, ponder, revise, create, discover, and learn how to learn.

KLINGER, TOBY

MON 10:30; DAR 112

Instructor, Psychology, Johnson County Community College

Integrating Critical Thinking into the Teaching of Introduction to Psychology *COLL, BEG, INF LOGIC, PSYCH, TACTIC/STRAT*

As a proponent of exposing students to informal logic while they learn various disciplines, this workshop will examine ways to design syllabi and class activities that enhance the critical thinking of college students. Under discussion are ways to present an Introduction to Psychology course for critical thinking. The workshop emphasizes how to shift from teaching rote memorization of chapter terms and basic concepts to teaching students how to think through the discipline's methods of inquiry and theoretical perspectives. Students completing Introduction to Psychology should possess some rudimentary thinking skills as: (1) Applying theory and research to their everyday life; (2) Understanding how so-called “facts” are derived in a social science; (3) Evaluating the validity of scientific studies; (4) Comparing predictions from theories used to explain various psychological behaviors and questioning findings that are biased towards one theory or assumption.

Students learn psychological principles best by active participation. Participating in class debates help students understand how the discipline of psychology thinks. Debates also facilitate their perspective-taking skills and understanding of educated skepticism. There will be a discussion about selecting topics for class debates during the workshop.

KUBASEK, NANCY

SUN 10:30; STEV 3072

Professor of Legal Studies, Bowling Green State University

ANDREA GIAMPETRO-MEYER

Associate Professor, Law and Social Responsibility, Loyola College

Introducing Critical Thinking into the Legal Environment of Business Classroom *BUS, COLL*

Professors who teach legal studies (and law) often say that they are teaching critical thinking when they teach using the traditional method of case analysis. An examination of this method, however, reveals that it prepares students only to understand the structure of an argument. The traditional case analysis contains no evaluative component; nor is the role of values in decision-making recognized. In our session, we will present a modification of the traditional method of case analysis that includes an evaluative component as well as an ethical component. Our method is easily modified for analysis of arguments outside the courtroom setting. We will provide an introduction to this method and then provide an opportunity for the audience to apply this method themselves.

KUCHURIS, CHRIS

MON 10:30; STEV 3046

Instructor, Philosophy and Child Care Specialist, Clark County Juvenile Court

Dilemma or Opportunity? *TACTIC/STRAT, SOCIOL, MUL-CULT, H CON*

Many juvenile offenders fail to become successful upon release despite the vast amounts of money and resources provided for them. Why don't they take our advice? Falsely assuming that legitimate paths to success are closed to them, and/or that they do not have the intelligence to further their educations, these young adults often return to crime as their only opportunity for a meaningful existence. Through a discussion of several film clips, workshop participants will learn how I was able to communicate that the choice of a criminal life-style limits, rather than intensifies, the experience of living. This method has applications for traditional students as well.

LAZERE, DONALD

MON 10:30; DAR 108

Professor, English Department, Cal Poly, San Luis Obispo

Reading Rush Limbaugh Critically *COLL, MID/HIGH, MEDIA, POL*

Based on Lazere's use of Rush Limbaugh's books as texts in an argumentative writing course, this session will examine Limbaugh as a highly influential political commentator whose writing is a classic model of failure to meet virtually every standard of critical thinking: clarity, precision, accuracy, logicalness, evidentiary support, probability, predictive or explanatory power, relevance, consistency, depth and breadth. Limbaugh's ideas will be examined in the framework of his conservative ideological assumptions, in dialogue with leftist authors presenting opposing view points in general ideology and on particular issues. The session will begin with Lazere's paper

critiquing Limbaugh, followed by close study of selected passages from his books, with audience participation in generating teaching strategies and student activities.

LEWIS, RICHARD B. MON 10:30; STEV 2065
Associate Professor, Civil Engineering Department, Louisiana Tech University

Critical Thinking: Classroom Procedures, Format, Grading, etc. Part 1
COLL, TACTIC/STRAT, MATH

This participatory workshop will illustrate how critical thinking can enter every facet of any course you teach, including grading, expected student performance, the syllabus, instructional objectives, study guides, Socratic Questioning, groups (teamwork), student self-assessments, student feedback on the teacher, testing procedures that have a critical thinking basis, journals, and much more. The emphasis will be upon blending the theoretical foundations of critical thinking (the elements and modes of reasoning, standards, and the intellectual virtues) with the realities of our school/college administrative requirements for content coverage, fair grading procedures, and other essentials. Included will be some hands-on exercises that will surprise you!

LEWIS, RICHARD B. MON 1:30; STEV 2065
Associate Professor, Civil Engineering Department, Louisiana Tech University

Critical Thinking: Classroom Procedures, Format, Grading, etc. Part 2
COLL, TACTIC/STRAT, MATH

This participatory workshop will illustrate how critical thinking can enter every facet of any course you teach, including grading, expected student performance, the syllabus, instructional objectives, study guides, Socratic Questioning, groups (teamwork), student self-assessments, student feedback on the teacher, testing procedures that have a critical thinking basis, journals, and much more. The emphasis will be upon blending the theoretical foundations of critical thinking (the elements and modes of reasoning, standards, and the intellectual virtues) with the realities of our school/college administrative requirements for content coverage, fair grading procedures, and other essentials. Included will be some hands-on exercises that will surprise you!

LITECKY, LARRY SUN 3:15; STEV 3046
President, Faculty Association, Minnesota Community College

Active Learning and Improving the Quality of Thinking TACTIC/STRAT, COLL, STAFF DEV

This presentation will link the improvement of the quality of thinking to the practice of effective thinking in college classrooms through active learning strategies. Structured student writing and speaking, designed to enhance thinking, are at the center of active learning. Four phases characterize this

presentation. First, there is a presentation on the link between active learning and improving the quality of thinking. Second, participants will identify and discuss activities done by students which promoted effective thinking. The third phase will examine sample active learning strategies. Finally, participants will use these samples to generate additional methods of promoting active learning and effective thinking.

LOVELESS, EDNA MAYE SUN 3:15; STEV 3049
Professor, English and Communication Department, La Sierra University

Fuzzy Thinking Produces Fuzzy Writing: An Alert for Precise Language
COLL, LANG, TACTIC/STRAT

Students needing to assess their thinking for clarity, precision, accuracy, relevance and significance provide in their writing samples an arena for examining progress in these skills. Most language precision problems can be addressed by posing questions a puzzled reader might have: Whom do you mean by "they"? Why are you saying this sentence after the previous one? Are you intentionally sounding testy here? What data can you cite for this conclusion? What assumptions underlie this statement? Students need to be alert to the connection between audience awareness and commitment to precise writing. This session looks at loaded words, attribution phrases, definitions, hidden premises, vague references and offers ways to establish academic criteria for clarifying meaning with precise language.

LUCKEY, SUE Y. MON 10:30; STEV 3072
Professor of Information Sciences, Morehead State University

Creative and Critical Thinking Strategies for Participating in a Global Economy MUL-CULT, BUS, MID/HIGH, COLL

One of the most significant changes for the U.S. has been adapting to a world view of interrelatedness. Cultural diversity and intercultural communications are beginning to have profound ramifications for the American workplace. This presentation will consider teaching strategies to help bridge the gap between classrooms and the international business workplace. Specifically, creative and critical thinking teaching strategies will be presented to: (1) develop international communications concepts, (2) enhance appreciation of cultural differences, and (3) expand economic and geographic awareness.

LUCKEY JR., GEORGE M. WED 8:45; STEV 1002
Director of the Center for Critical Thinking, Morehead State University

Common Slogans and Uncommon Sense TACTIC/STRAT, MID/HIGH, COLL

"That stuff's too deep for me" is a common slogan students use to express lack of confidence in their own rationality. "Matter is composed of solid particles" expresses an oversimplification of scientific 'fact.' "Seeing is believing" expresses a familiar common sense trust in the accuracy of ordi-

nary observation. The purpose of this session is to examine inventories and strategies which help students become aware that critical thinkers must foster an uncommon sense to correct the misleading nature of common slogans and common sense.

MATTHIES, DENNIS
Lecturer, Stanford University

SUN 3:15; STEV 2006

Working Smarter Through Precision Questioning I GEN, BEG, BUS, TACTIC/STRAT

The original sin in education is to give the answer before the student knows how to ask the question. "But most of the time I don't know enough to ask questions." Before this workshop is over you will realize that you *always* know enough to ask questions! Precise questions. Productive questions. Once you understand the basic types of questions and their natural order, you will discover that inquiring about the ozone layer and the trade deficit is no more difficult than investigating everyday things. Once we know how to handle question-tools, all forms of mental work become more organized and more productive.

MATTHIES, DENNIS
Lecturer, Stanford University

MON 10:30; STEV 2049

Working Smarter Through Precision Questioning II GEN, BEG, BUS, TACTIC/STRAT

Participants in this workshop will practice two skills: asking questions of clarification and spotting assumptions. Part of what it means to be a critical thinker is to understand that neither of these processes can be accomplished with a snap of the fingers. Both require skill and patience. The exercises used in this workshop can easily be transferred to other types of subject matter. To benefit from Precision Questioning II it is not necessary to have attended Precision Questioning I.

MAURER, WILLIAM H.

SUN 10:30; IVES 34

Principal, Barney Greathouse Elementary School, Midland Independent School District

PATRICIA A. MAURER

Coordinator, Programs for Gifted Students, Midland Independent School District

Moving From "I Think I Can!" to "I Can Think!": Changing Attitudes and Actions of Elementary Grade Teachers Elem, Beg, Staff Dev, Tactic/Strat

IMPACT (Increasing Maximal Performance By Activating Critical Thinking Skills) emerged from classroom-based research efforts. This staff-development model provides a collaborative framework for teaching intelligent behavior. This session explains the IMPACT model and describes results of school-wide implementation at Barney R. Greathouse Elementary School, Midland, Texas, and implementation in PROJECT THINK, a district-wide tal-

ent pool program for high ability students in grades K-3. Evidence of positive effects on both teachers and students will be presented. The IMPACT initiative shaped attitudes and actions, sustained efforts to remodel curriculum, and implement new instructional strategies. IMPACT resulted in purposeful learner behavior and improved achievement.

MAYO, HARRY T.

Instructor, English Department, American River College

SUN 10:30; SU 100

PAUL DUAX

Instructor of Speech, American River College

GAIL HUGHES

Coordinator of Program Evaluation, Minnesota Community College System

VIRGINIA O'KEEFE

Adjunct Assistant Professor of Communication, Tidewater Community College

JOAN RYKIEL

Professor of Psychology, Social Science Department, Ocean County College

MICHAEL MONK

Student, American River College

What are We Doing With Critical Thinking in the Community College System and Where are We Headed With It in the Classroom? A Panel Discussion Moderated by Harry Mayo STAFF DEV, TACTIC/STRAT, BEG, COLL

Listen to student and educator views on where we are and where we are going with critical thinking in the classroom. The panel will consist of community college educators from various parts of the U.S. who are engaged in the critical thinking movement in varying educational disciplines along with a community college student of critical thinking. There has been a steady growth of awareness of the benefits that critical thinking adds to the learning process, but what is being done to ensure we are getting the most out of our critical thinking skills? Are we doing the best we can to utilize and disseminate these skills? This session is designed to allow each panelist an opportunity to discuss her views on how educators and students can best facilitate the implementation of critical thinking in all aspects of the community college education process.

MCCARTHY-TUCKER, PH. D., SHERRI

Psychology Faculty, Chandler-Gilbert Community College

TUES 1:30; DAR 139

Teaching Reality-Based Formal Logic to Adolescents to Improve Critical Thinking Skills PSYCH, TACTIC/STRAT, INF LOGIC, GEN

Based upon a review of literature in psychology and education, three premises were induced: (a) Like language, capacity for critical thought is acquired through dynamic interaction between organism and environment.

Practice with logic must occur for this acquisition to take place; (b) Society currently fails, for the most part, to provide adolescents with opportunities to learn, observe or practice logic in any systematic way, and (c) Practice with logic needs to occur during adolescence, in a way compatible with the manner in which the brain processes information, for critical thinking skills to develop. This session will summarize this literature and include a brief formal paper detailing a pilot study on teaching formal logic to high school students which led to dissertation research. Findings of a longitudinal study with 190 high school students to test the hypothesis that instruction in formal logic leads to improved critical thinking skills as measured by standardized ability tests and student self-report will then be presented and discussed.

McCONNELL, ROBERT L. WED 8:45; STEV 2006
Professor, Environmental Science and Geology, Mary Washington College

DANIEL C. ABEL
Instructor of Marine Science, Coastal Carolina University

Critical Assessment of College Student Course Reaction Questionnaires
STAFF DEV, TEST, TACTIC/STRAT, COLL

Student course reaction questionnaires, if properly constructed and interpreted, may validly contribute to assessment of the student's educational experience. If poorly constructed or interpreted, however, they may provide specious data which could be used inappropriately. We propose to critically evaluate two such documents: those in use at Mary Washington College and Coastal Carolina University, and encourage participants to bring their institution's forms for comparison. We will present statistical treatment of class responses to suggest a link between the student's expected grade and his/her response to the course. Finally we will discuss ideal attributes of questionnaires for the evaluation of courses based on critical thinking methods.

McGUIRE, EDWARD L. WED 10:30; STEV 3049
Technical Assistant to Critical Thinking Program, Massachusetts Bay Community College

Reflective Logic and Third-Wave Critical Thinking *INF LOGIC, COLL, TACTIC/STRAT/MID/HIGH, COLL, TEST, TACTIC/STRAT*

This will be an informative and practical session presenting a revised view of informal logic instruction in two introductory college courses. The importance of uncovering the reasoner's own assumptions and biases will be stressed. Properly used, the study of logical standards such as reasonableness, relevancy and sufficiency can help overcome the risk of relativist positions often taken when students are encouraged to consider alternative viewpoints.

As critical thinking moves into the 21st century, it will be vital to maintain the intellectual honesty and inquiring dispositions which are the desired outcomes of these courses. In the last 30 minutes, session participants will be asked to contribute their own ideas for inculcating whole institutions with these core values.

McGUIRE, EDWARD L. SUN 11:20-12:00; IVES 119
Technical Assistant to Critical Thinking Program, Massachusetts Bay Community College

(Mini-Session) Advantages of a Technical Assistant for a Critical Thinking Program *MID/HIGH, COLL, TEST, TACTIC/STRAT*

This mini-session will focus on the position of a Technical Assistant for an introductory college critical thinking program. The tech's role can be used as an excellent model for both structuring stand-alone critical thinking courses and integrating with content-area instruction. My functions include, but are not limited to: organizing and storing course materials, maintaining grade records, meeting with students individually and in small groups for "tutorials," helping to research and create new course materials and assignments, and providing an important link between three very different course facilitators. I have been active in defining my own job as new needs arise, and I would like to share strategies for improving other schools' specific situations.

McGURY, SUSAN MON 3:15; STEV 2006
Assistant Professor, College Reasoning Champion, De Paul University

KATHLEEN TAYLOR
Chair, Department of Portfolio Development, St. Mary's College of California

JANIS BRADLEY
Chair, Department of Portfolio Evaluation, St. Mary's College of California

Thinking and Transformation: Models of Support for Emerging Critical Thinkers *COLL, GEN, FEM, LANG, TACTIC/STRAT*

We start with the premise that learning is about change. We as teachers do more than add academic information to our students' learning processes; we have the privilege and responsibility to attend to and facilitate the learning experience as it impacts students' lives.

We know that when people change their thinking, they not only profoundly change their ways of processing information; they change their way of perceiving and understanding their world. How can we be of most help? We know some things about cognitive development and affective dimensions to the learning process, yet many of us still feel under-equipped to identify stages of growth and to generate appropriate strategies for intervention or support.

This workshop will present models from several important leaders in the field of adult development which we can use as tools to help us guide our

students through the difficult process of changing their thinking. As we watch this delicate, miraculous process unfold, we will have more practical ideas about how to navigate the seas of change.

McKILLOP, LESLIE S. MON 1:30; STEV 3049
Associate Professor, Junior High Program, Nova Scotia Teachers College

DAVID W. McKILLOP
Associate Professor, Intermediate Elementary Program, Nova Scotia Teachers College

DAVID WHITE
Principal, Nova Scotia Teachers College

Not Waving but Drowning: Caught in the Second Wave Undertow *COLL, MID/HIGH, PSYCH, TACTIC/STRAT*

Funded by the Canadian government, the Nova Scotia Teachers College, in collaboration with researchers from the Ontario Institute for Studies in Education and the University of Western Ontario, has just completed a two-tiered, three-year intervention in the area of critical thinking (specifically, cognitive and metacognitive strategy instruction). While the statistical outcomes were inconclusive, the processes involved do raise interesting questions about field research in this area. In particular, we should like to consider the preparation of the interveners, the problems of research design, the difficulties in obtaining meaningful measurements and in controlling variables and the value of imposing laboratory models on "real life" research.

We can offer observations, experiences and suggestions. We do not propose to provide answers, but may be able to identify some shoals that might hinder third wave research from reaching its full potential.

MENGES, ROBERT J. WED 10:30; STEV 3040
Professor, School of Education and Social Policy, Northwestern University

Critical Thinking and Evaluation of Professor's Teaching *COLL, STAFF DEV*

Procedures for evaluating faculty performance, especially for evaluating teaching, often fail to embody the elements and standards of critical thinking. This session provides a brief summary of research about faculty dissatisfactions regarding the evaluation process. We then examine three areas where teaching evaluations are often weak: poorly articulated and communicated job expectations, inadequate evidence about teaching performance, and failure to distinguish between criteria of merit and criteria of worth. Small groups will analyze a case in which these problematic areas are evident. We will explore how faculty evaluations can be improved through elements and standards of critical thinking, particularly the elements of assumptions, inferences, and point of view, and the standards of clarity, accuracy, and relevance.

MEYERS, G. DOUGLAS SUN 10:30-11:10; IVES 119
Chair, English Department, University of Texas at El Paso

(Mini-Session) Achieving Poetic Consciousness: Found Poetry/Poetry Found *LANG, INF LOGIC, K-12*

The purpose of this mini-session is to help students use critical thinking skills to achieve poetic consciousness and to write original poems. "Found poems" are ones constructed from the so-called "ordinary language" of newspapers, magazines, etc. Creating found poems involves students in discovering poetic ways in which words and phrases that are not normally thought of as poetic. Using newspapers and magazines, students think critically and creatively to develop poetic forms and to forge poetic bonds between words and phrases which, in their original context, merely inform, but—in a novel context—take on poetic life.

MILLER, ERIC E. TUES 10:30; STEV 3076
5th Grade Teacher, Stayton Middle School

The Law of Conservation of Mass and Inductive Reasoning *ELEM, BEG, SCI*

Explore the concept of inductive thinking with Tony the Tiger, jelly beans and slime. Participants will determine if the sum of the masses of two separate substances will change once they are combined. Participants will combine chemicals that dramatically increase in volume, change state, change colors and absorb large amounts of water. Inductive thinking concepts like premise, conclusion, probability, relevancy, and *post hoc ergo propter hoc* will be covered.

It's sure to be a Grrreat session. (Hands-on activities are limited to 15 participants, more are welcome to observe.)

MILLER, ERIC E. TUES 1:30; STEV 3076
5th Grade Teacher, Stayton Middle School

Consumer Science *ELEM, BEG, SCI*

One way to get students interested in critical thinking is to use these skills with every day consumer related materials. This presentation will share an experiment to help motivate students to think critically about consumer products. Then it will share a process that's followed to get students to do consumer science. The steps are basic to the scientific process, but are organized and sequenced so that upper elementary students can be successful answering their problem. Several useful handouts and checklists will be shared to help others who might be interested in getting students to think critically about consumer issues.

MILLER, ERIC E.

5th Grade Teacher, Stayton Middle School

Advertising MID/HIGH, BEG, LANG

People are bombarded with advertisements throughout their day, but rarely examine them in detail. What are the ads really saying and are the claims relevant, valid, and/or accurate? This presentation will involve participants in an advertising unit for middle school students. The unit first focuses on evaluating the reasoning (or lack of) in ads in different media, then assigns students to develop an advertising campaign for a non-profit group or socially beneficial idea or behavior.

SUN 1:30; STEV 3046

MISSIMER, CONNIE

Author

The Case That Alternative Argumentation Drives the Growth of Knowledge—Some Preliminary Evidence ADV, MATH/SCI, FEM, INF LOGIC

Argumentation and critical thinking theorists can make a much larger case for the significance of their disciplines than they appear to do. Although it is implicit in most theories that, for example, avoiding fallacies will enhance epistemic progress, the basis for that assumption also remains implicit. What I will suggest is that we in the argumentation field ask the overarching question, "How is knowledge driven?," moving epistemic progress from an assumption to an empirical guideline. I suggest here the theory that critical thinking is the mechanism which drives the growth of knowledge. Since "growth of knowledge" *per se* is wooly, the strategy I have devised is to attach it to concrete benchmarks in the form of uncontroversial historical accounts of the generation and acceptance of new theories about which there is near universal agreement that they drove the growth of knowledge. Three such benchmarks are Newton's theory of motion, Darwin's evolution, and Mill's argument for the intellectual equality of women.

This approach yields some predictable results (e.g., that a dialogical approach by many people over time is a necessary condition for the growth of knowledge), but also a number of surprising results, among them that "reasonableness" is a constantly changing intuition which is biased against superior but novel ideas, that it may be better for theorists *not* to resolve their disputes, and that violation of one of the fallacies on a large scale is one of the strongest evidentiary tools we have.

MISSIMER, CONNIE

Author

How to Teach Critical Thinking in a Way That is Not Culturally Biased Without Sacrificing High Evidentiary Standards MID/HIGH, COLL, MUL-CULT

The purpose of this session is to help students from *any* cultural background see how they can do excellent critical thinking within their cultural framework

MON 1:30; IVES 35

Students are not dumb. If, for example, they are Inuit and find it offensive to be asked for their reasons, they know full well that the current Western/Anglo view is that this cultural attitude is unreasonable, or certainly sub-optimal for the doing of critical thinking. And they will clam up in class. This session models a way to turn the tables on these tacit Western assumptions, enabling students to freely communicate their views, opening both instructor and the class to considering alternative views and constructing for these views tests which would garner cross-cultural acceptance. Two points:

- This is not a West-bashing session! The greatest epistemological progress in the West has come from Westerners generating theories which violated to a shocking extent the then-reasonable Western view: Salient examples are Newton's theory of motion, Darwin's evolution, and Mill on the intellectual equality of women.
- Hence, encouraging students of all backgrounds to go ahead and present ideas which are unreasonable by current Western standards is not only an acceptable critical thinking practice, but might end by adding to the world's store of knowledge in important ways.

MOHAPATRA, P.K.

Professor of Philosophy, Philosophy Department, Utkal University

TUES 10:30; STEV 2006

Critical Thinking and the Problem of Personal Identity ADV, PSYCH, LANG, TACTIC/STRAT

In the proposed session my concern is conceptual analysis reflecting critical thinking of the first and third wave variety. The concepts chosen for analysis are personal identity and the criteria thereof. While the focal force of my analysis is logic, argumentation and reasoning, I apply a broader standard of logic and rationality and present a comprehensive account of personal identity as it is used in its everyday context. The problem, I argue, is not a problem of defining personal identity but that of specifying the criteria for making identity judgments about persons. The traditional theories, which looked for "something unchanged" (e.g. the soul) to account for the sameness of persons, were duped by the apparent incompatibility of "sameness" and "change". This incompatibility is due to a narrow view of logic and etymology; but a wider view of the logic of these words shows that in some cases sameness even includes change. I then analyze the concept of the criteria of personal identity and criticize a theory that pleads for the primacy of the psychological continuity criterion—drawing force from the alleged cases of change-of-body. By broadening the concept of bodily continuity in terms of brain continuity I show the necessity of physical continuity even in the so-called cases of change-of-body.

Highlight: Functional analysis of the concepts in question rather than formal definitions.

MORSE, H. OGDEN

Director, Lyceum Institute, Lyceum Institute

TUES 10:30; STEV 3072

Literature, History, and What We Believe *MID/HIGH, TACTIC/STRAT, LANG, SOCIO/MID/HIGH, SOC STUD*

Consider the following "truths": "The sky is blue because it reflects the color of the sea." "The speaker in the poem is the author." "Species adapt in order to survive." "The law of averages and the law of probability govern the results of a coin flip." "William the Conqueror was destined to defeat Harold at the Battle of Hastings."

How did we arrive at these "truths"? Have we examined them lately? Do they affect the way we conduct our lives? This workshop is designed to show how material from the English and history disciplines may be integrated at the secondary level. The lesson will model classroom strategies that ask students first to analyze their own beliefs, misconceptions, and the manner by which they acquired them. Then students explore the relationship between the facts of history and the fiction of literature. They use standard texts, but the emphasis is on the application of critical thinking skills to deeply held and personal beliefs. Participants will be engaged in all activities. Handouts will include the plan for this lesson, student responses to the work, and examples of assessment methods.

MORSE, H. OGDEN

Director, Lyceum Institute, Lyceum Institute

SUN 4:05-4:45; IVES 119

(Mini-Session) The Dialectical Notebook *MID/HIGH, SOC STUD*

The purpose of this mini-session is to help students develop the habit of close reading and interaction with the text. In preparation for class work, students spend most of their time reading from assigned texts. Most of them take a very casual approach to this task. It is not surprising that they have only the vaguest notion of the material when they get to class. Usually the best they can do is to give back the facts of the texts. This should not be an acceptable outcome. One way to get them to concentrate on their reading is through the use of the dialectical notebook. In it they record the important elements of the text and also develop responses to specific parts of the text. Not only does this notebook become the basis for class work, but it also provides students with an intellectual history of their reading experience.

This workshop will provide a model of the dialectical notebook and will offer some strategies for its use. The thirty minutes will be taken up with a model of a dialectical notebook, complete with a brief text. Participants will spend their time working through the process so that they will know how to use it in their classrooms.

MUSER, JEANETTE K.

Librarian, West Windsor-Plainsboro High School

SUN 3:15; IVES 34

JULIA E. NORATO

Chemistry Teacher, West Windsor-Plainsboro High School

LAWRENCE E. SWESEY

Physics Teacher, West Windsor-Plainsboro High School

Applying and Teaching Critical Thinking *HIGH, MATH/SCI, TEST, TACTIC/STRAT*

This session demonstrates a practical, efficient method of teaching high school level students to think critically. The session presenters will discuss the process by which their students develop the skills necessary for them to think critically. Several examples of exercises used in both the sciences and humanities will be demonstrated. It is the position of the presenters that critical thinking is an active process and the teaching cycle requires students to experience the process to learn.

The presenters will describe how they use a problem solving model similar to the Bransford and Stein IDEAL model as a curriculum vehicle. The discussion will detail the students' use of the model as they progress through the three learning stages of dynamic equilibrium in order to implement the critical thinking processes on their own.

MUSER, JEANETTE K.

Librarian, West Windsor-Plainsboro High School

MON 7:30-11:10; IVES 119

JULIA E. NORATO

Chemistry Teacher, West Windsor-Plainsboro High School

LAWRENCE E. SWESEY

Physics Teacher, West Windsor-Plainsboro High School

(Mini-Session) Teaching Critical Thinking *MID/HIGH*

The purpose of this mini-session is to teach students to accomplish independent critical thought. This mini-session will discuss an efficient and practical method of teaching students to think critically. Critical thinking is an active, rather than static, process; as such it requires that students develop abilities and skills often not stressed in the normal high school curriculum. The most effective teaching cycle should stress the dynamic nature of this thinking process.

NOSICH, GERALD

Professor of Philosophy, University of New Orleans

WED 8:45; DAR 108

Working with the Elements of Reasoning *GEN*

The elements of reasoning constitute the basic essential vocabulary of critical thinking, the core set of ideas that, together, are the fundamentals of thinking. Teaching students to become more proficient in consciously using

the elements is a major part of teaching them to think better. This workshop will be on the elements of reasoning: what they are, how they function, how they work in analyzing a problem or an academic discipline, how they fit in with teaching high standards of critical thinking.

NOSICH, GERALD

TUES 3:15; DAR 108

Professor of Philosophy, University of New Orleans

Pyramid Teaching: Formulating a Philosophy of Education *COLL, HIGH*

This workshop will be an exercise in participant-centered learning and teaching. The main goal of the session is for participants to formulate a statement of their views on what education should be, both personally and in cooperation with others. The presenter will play only a minimal role in this workshop; his main function will be to facilitate groups as they work toward consensus on the goals of education. The technique to be used is called "pyramid teaching."

NOSICH, GERALD

TUES 10:30; DAR 108

Professor of Philosophy, University of New Orleans

Providing a Model for Student Self-assessment in a Subject-Matter Course *COLL, HIGH*

Many teachers are deciding to change the way they teach courses in their discipline, away from an over-emphasis on information and "content" to an emphasis on thinking through that content, thinking critically within the discipline. Such teachers confront a cluster of problems having to do with assessment: How can I assess my students' critical thinking in the discipline? What criteria are appropriate to use? How can I get my students better able to assess their own thinking? How can I get my students to grasp what it is to think critically within the subject-matter as a whole?

This will be a workshop on this cluster of problems. The main activity will be constructing, sharing, and discussing a model for students to use in assessing their reasoning through a central problem in the course.

NOSICH, GERALD

MON 1:30; WARREN

Professor of Philosophy, University of New Orleans

An Introduction To Critical Thinking: What Is It? Why Should I Teach For It? How Can I Teach For It? *GEN, BEG*

The session will provide a working, practical idea of what critical thinking is. The aim is not to provide a strict definition, but to describe it in a way that is usable—especially in the classroom—and to give a sense of how deep and robust the concept of Critical Thinking is.

Second, the session will make a case for how profoundly needed critical thinking is and—particularly when it is understood as the deep and robust notion it is—how profoundly lacking it is in education in general.

Finally, the session will provide some examples of how to teach for it and a basic model of how to rethink one's teaching to foster critical thinking for all educational levels.

A question period will follow the presentation.

NWA, WILLIA L.

WED 8:45; STEV 2049

Educator, Secondary Education, Canton City Schools

Thinking Critically About Cultural Diversity: How Should Educators Do It? *MID/HIGH, COLL, BEG, MUL-CULT, H CON*

Multicultural education involves an interdisciplinary approach that stresses teaching strategies that affirm the right of students to be different and the responsibility of students to appreciate and respect the differences of others. For multicultural education to be effective, an holistic, transformation approach must be instituted. This approach enables the learners to view concepts, ideas, issues, themes, and problems from various ethnic perspectives and points of view. In addition to critically thinking of solutions that foster multiculturalism, this presentation will discuss and brainstorm activities educators can implement in the classroom. The rationale for recognizing cultural diversity and the impact of changes that have evolved in our society and in our schools will also be discussed.

O'CONNOR, JAMES

TUES 10:30; ART 108

Center Fellow, The North Carolina Center for the Advancement of Teaching

A Renewal Seminar: The Role of Critical Thinking in Your Life *TACTIC/STRAT, STAFF DEV, SOC STUD, H CON*

The North Carolina Center for the Advancement of Teaching (NCCAT) in Cullowhee, North Carolina is dedicated exclusively to the advancement of teaching as an art and a profession. Funded by the State of North Carolina, the mission of NCCAT is to recognize the State's outstanding career teachers by providing them with renewal experiences.

This session will share information about a five day renewal seminar at NCCAT which was held in December of 1994 entitled "The Role of Critical Thinking in Your Life". The seminar was co-led and designed by both NCCAT Center Fellow Jim O'Connor, and Barbara Presseisen, Director of National Networking for Research for Better Schools in Philadelphia. Information will be provided about the goals and content of the various seminar sessions which focused on the development of critical thinking in one's personal life as well as within the classroom. Participants in this workshop will engage in some of the actual activities which the North Carolina teachers participated in during the seminar.

O'KEEFE, VIRGINIA

Adjunct Assistant Professor of Communication, Tidewater Community College

SUN 3:15; ART 108

Teaching for Discovery: The Questioning Class *MID/HIGH, COLL, LANG*

If we want authentic learning to take place, the structure of classroom communication must change from the traditional transmission process, teacher talks—students listen, to a discovery process. Students need to be questioners, seekers of information. The questions must be real, a form of hypothesis testing. Critical thinking evolves as students learn how to question and how to discover answers. This session presents a theoretical rationale for the change, provides supporting research from communication studies, suggests practical classroom methods, and models teacher-researcher questions.

OLUWATOYIN, ANTHONY

Questions, Eccentrics and Critical Thinking *TEST, GEN*

Critical thinking does not instruct in questioning—perhaps the most natural aspect of the thinking process. Good questioning skills are central to the reform of intellectual preparation, to the dismantling of “intellectual apartheid”. Eccentric views in different disciplines prompt questions in ways that test attitudes toward explanation. We can thus better cultivate in students the dispositions that characterize our practice.

OTTERBACH, RENATE

Educational Consultant

WED 8:45; STEV 2065

Teaching Critical Thinking Inductively *TACTIC/STRAT, STAFF DEV, MID/HIGH, COLL*

Hilda Taba’s Inductive Model is designed to encourage students to think their way through the content. Research has shown that it increased students ability to draw logical inferences and generalizations. It also enables students to analyze, synthesize, and evaluate data more effectively. When Taba’s Inductive Model is combined with Richard Paul’s Elements of Reasoning and intellectual standards it becomes a powerful tool to teach critical thinking.

The combined model effectively changes passive students into mentally engaged learners. Furthermore, the questioning strategies encourage students to dig deeper into the subjects, form and test their own hypotheses, and continuously evaluate both their thinking and their products in terms of universal and discipline specific intellectual standards. Thus students become reflective, self-assessing learners.

This session consists of a simulation activity combined with a lecture/discussion format.

OXMAN, WENDY

Director, Institute for Critical Thinking, Montclair State University

TUES 10:30; STEV 2049

Elementary Teachers’ Perceptions of Critical Thinking in Theory and Practice *ELEM, STAFF DEV, TACTIC/STRAT*

How do elementary teachers interpret the principles and practices of critical thinking at the point in time at which they are completing their work in a masters degree program in education with a concentration in critical thinking? What, for them, is the meaning of “critical thinking as an educational ideal?” How do they describe critical thinking as it occurs in the classroom? What do they think are important ways of teaching for critical thinking? How do they convey these ideas to others?

In this session, the interpretations that these knowledgeable elementary school teachers give, generally, to the principles and practices of critical thinking will be described and discussed, along with their implications for teacher education, for inservice work with teachers, and for the development of educational materials.

PAPPAS, JON

Presenter Representative, Center for Critical Thinking

MON 3:15–3:55; IVES 119

(Mini-Session) The Oral Test for the Mastery of Basic Concepts

TACTIC/STRAT, TEST/TACTIC/STRAT, TEST, BEG

Thinking about your thinking while you are thinking in order to make your thinking better—is the most essential requirement of critical thinking. How can we help students think more precisely about thinking? One of the most straightforward and logical ways is to have them learn the basic vocabulary of critical thinking. Once students understand what the basic “parts” of thinking are, for example, and how to apply them to various situations they are in a much better position to assess their own reasoning and the reasoning of others.

In this mini-session I will present one teaching tactic which can be used to help students learn the basic vocabulary of critical thinking (i.e., assumption, conclusion, point of view, interpretation, etc.) or the basic vocabulary of almost any course for that matter—the oral test.

The staff at the Center for Critical Thinking have found this oral test, if administered properly, to be one of the most effective and proven (over 1,000 students tested) tactics for helping students think more precisely about thinking. It has been designed to be beneficial to the student—not the teacher, but the end result is mutual benefit for both teacher and student.

PATTERSON, DAWN

TUES 1:30; STEV 3046

Faculty, Department of Nursing, University College of the Cariboo

Active Engagement and the Construction of Knowledge COLL, TACTIC/STRAT, NURS, BEG

The Collaborative Baccalaureate in Nursing Curriculum developed by four British Columbia colleges/university-colleges and the University of Victoria is based on a new paradigm for education wherein the curriculum is driven by critical reflection, praxis, and transformative learning. The focus of teaching in this educative-caring curriculum is on strategies that engage students in the development of meaningful ways of thinking and knowing.

Research in education suggests that effective learning involves both the acquisition of new information and experience (content) and the individual's personal discovery of the meaning of experience (understanding). The University-College of the Cariboo curriculum stresses active engagement as an essential process in the acquisition of knowledge, a process through which an understanding of the content under study is developed and information is not merely memorized. It is through interaction of the self with ideas and information that one comes to understand the learning experience with increased clarity and a broader perspective, to discover the relationship of the event to the self and to construct new meaning.

The Patterson-Mahara Framework for Understanding guides educators and learners in comprehending the role of active engagement in the construction of knowledge and offers new potential for effective teaching strategies that promote deeper understanding of course content and themselves as thinkers and learners.

PAUL, RICHARD

MON 10:30; SU 100

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Socratic Questioning: A Series of Three Demonstration Sessions. First Demonstration (Asking Questions That Take Thinking Apart) TACTIC/STRAT, BEG

All thinking is driven by questions. Good questions generate good thinking. Bad questions generate bad thinking. Deep questions, deep thinking. No questions, no thinking. To think well about thinking we need to learn how to ask questions that take thinking apart and reveal to us how the parts are functioning together. What is the *purpose* of our thinking? What is the central *question*? What *information* are we using (and where did we get it)? How are we *interpreting* that information (and is that interpretation justifiable)? What key *concepts* shape our interpretation? What are we *assuming*? What are we *implying*? What *point of view* are we using? In this first demonstration session, Richard Paul will illustrate how questions based on the elements of thought can be used to take thinking apart. (The Socratic Questioning sessions will be videotaped.)

PAUL, RICHARD

MON 1:30; SU 100

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Socratic Questioning (Second Demonstration Session): Asking Questions That Assess Thinking Based on Intellectual Standards TACTIC/STRAT, BEG

To think well about thinking we need to learn how to ask questions that bring *intellectual standards* to bear on thinking: Is the point *clear*? (Do we need to elaborate or illustrate the point?); Is the point *accurate*? (Do we need to test it or verify it in some way?); Is the point *relevant*? (Does it bear upon the question at hand?); Is the point *deep* enough? (Does it take into account the complexities of the issue, problem, or questions?); Is the reasoning *broad* enough to take into account all relevant viewpoints?; Is the reasoning *logical*? (Are there any contradictions in it? Does it make sense overall?) In this second demonstration session, Richard Paul illustrates how questions based on the universal intellectual standards of thought can be used to assess and improve thinking. (The Socratic Questioning session will be videotaped.)

PAUL, RICHARD

MON 3:15; SU 100

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Socratic Questioning (Third Demonstration Session): Asking Questions Based on Systems and Domains TACTIC/STRAT, BEG

To think well about thinking we need to learn to distinguish not only three types of questions (one-system, multi-system, and "no system" questions) but also the various domains in which questions of different types can arise (philosophical, biological, psychological, sociological, archeological, literary, moral, etc.). In this third demonstration session, Richard Paul illustrates how questions based either on systems or domains can be used to advance and improve thinking. (*System considerations*: Is there an established procedure for settling this question? Are there conflicting approaches to this question? Is this question to be settled simply by expressing our subjective preference? *Domain considerations*: Would a liberal answer this question differently than a conservative? Is there a biological dimension to this question? A historical dimension? A political dimension? An economic dimension? A moral dimension? A sociological dimension?) (The Socratic Questioning sessions will be videotaped.)

PAUL, RICHARD

TUES 10:30; SU 100

Director, Center for Critical Thinking and Moral Critique, Sonoma State University

RALPH JOHNSON

Professor of Philosophy, University of Windsor

Informal Logic: Is Our Present Concept Comprehensive Enough? INF LOGIC, COLL

In the first wave of critical thinking research and practice (1970-1982), most of those doing research in the field were philosophers whose expertise in critical thinking was based on their work in logic, principally informal

logic. The informal logic tradition is still an important strand in critical thinking studies, though it is no longer dominant. Nevertheless, most college texts designed for courses in critical thinking are based on informal logic. One of the most distinguished leaders in the informal logic movement is Ralph Johnson. In this session, Richard Paul and Ralph Johnson will debate the adequacy of the present conception of informal logic. The central question will be, "Is the present concept of informal logic comprehensive enough?"

PAUL, RICHARD **WED 10:30; SU 100**
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

How To Recognize Pseudo Critical Thinking GEN

As critical thinking has gained more and more public attention and diverse groups are convinced of the need for it in their work, a major market for critical thinking materials has developed. Since those seeking an approach to critical thinking are often (if not typically) looking for an easy, painless, instantaneous solution requiring no significant change on the part of the user, the phenomenon of pseudo critical thinking has emerged, approaches to critical thinking that lack a sound theoretical base. One of the best ways to test an approach to critical thinking to determine whether it is part of the pseudo critical thinking phenomenon is to see what intellectual standards it fosters. Typically, the quick fix approaches to critical thinking are based on devices, techniques, gimmicks, or psychological processes. Typically, they are devoid of intellectual criteria and standards. In the second wave of research and practice in the field of critical thinking studies (1980-1995), an avalanche of pseudo critical thinking materials have flooded the market. In this session, Richard Paul spells out in greater detail, with examples, how to recognize a pseudo critical thinking approach.

PAUL, RICHARD **SUN 1:30; SU 100**
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

Beyond Argumentation: The Use of Reason in Everyday Life GEN, BEC

There are occasions in which we engage in argumentation. However, it is a serious mistake to equate critical thinking with argumentation since critical thinking involves the application of reason to every dimension of living. If I become a consummate critical thinker, I use my capacity to reason to deal effectively with negative emotions, problems of motivation, bad habits, self-deception, prejudice, and, in general, a multiplicity of forms of irrationality. As a critical thinker—to the extent, that is, to which I embody its values and traits—I am better able, than otherwise I would be, to solve problems, understand myself and others, deal with "nonsense" ideas I have unconsciously internalized, develop "powerful" ideas in their place, think philosophically, scientifically, historically, ethically, and, in general, to *take charge of my life*. In this session, Richard Paul makes the case for a comprehensive view of critical thinking that goes beyond not only argumentation, but beyond any conception of critical thinking that denies its application to any dimension

of life, whether inner or outer. It is this broad concept of critical thinking which Paul argues needs to be at the heart of third wave work.

PAUL, RICHARD **WED 8:45; SU 100**
Director, Center for Critical Thinking and Moral Critique, Sonoma State University

What Is It to Join the Third Wave? GEN

To join the third wave means to recognize the limitations of first (1970-1982) and second wave (1980-1995) work and to seek to correct them (see description of the opening keynote). In other words, it is to see, on the one hand, that a narrow concept of critical thinking cannot be used to re-think either the curriculum or the way one lives one's life; and, on the other, that universal intellectual standards are a prerequisite to critical thinking. It requires that one learn from the early work in the field without ultimately accepting the narrow concept of logic which was typically used. Whatever our concept of critical thinking—to put the point somewhat differently—it must explain the relation of critical thinking to a wide array of phenomena (intuition, emotion, values, subject domains, culture, language use, personal life styles, etc.) and, whatever our concept of critical thinking, it must entail intellectual criteria and standards that enable us continually to assess our own thinking (and that of others) in ways that are not idiosyncratic and subjective.

PETERS, J.E. (PETER) **SUN 10:30; STEV 3046**
Lecturer in Economics, University College of the Cariboo

The Student Lecture Review: Critical Feedback on Standards and Expectations COLL, TACTIC/STRAT, MID/HIGH

One of the problems of the conventional teaching process is that feedback about course expectations and standards is limited to examinations. It is evaluative and often punitive. The Student Lecture Review, however, allows for regular feedback from instructor to students without summative evaluation. It teaches students to look at their own work and that of others in a critical manner. Students learn to think critically about what material is significant and relevant. They begin to develop criteria to judge the quality of their work in relation to the work of others. The Student Lecture Review is generic, i.e., it can be used in most subject areas.

POLLARD, JIM **TUES 3:15; STEV 2049**
Curriculum Specialist, Spokane Falls Community College

Making the World a Different Place with New Thinking TACTIC/STRAT, GEN

This session will be a interactive workshop type of experience. Participants will explore ways of assisting students to gain insight into why they are learning what they are learning, and learning to question why they are doing what they are doing. The objective is to provide students with opportunities to develop sound habits of thought which foster deep internalization of new thinking.

POLLARD, JIM

Curriculum Specialist, Spokane Falls Community College

WED 8:45; DAR 139

Finding Meaning—The Search for Logic TACTIC/STRAT, GEN

This is not a lesson in logic. It is a discussion about how to encourage teachers to recognize the logic within their discipline and the importance of assisting students to develop a meaningful relationship with the subject matter. Should second graders seek the logic of addition or just memorize that 1+1=2? What is it like to think historically? What is the logic of photography, biology, graphic design, or chemistry? Thinking within one's discipline requires reaching for a broader range of concerns. Participants in this session will reach.

POLLARD, JIM

Curriculum Specialist, Spokane Falls Community College

MON 1:30; DAR 122

Transference—Making the Classroom Part of Life TACTIC/STRAT, GEN

This session will be a interactive workshop type of experience. Participants will explore some ideas about how to manage classroom activities in such a manner to assist students in transference. Making it clear to students how to transfer new found thinking skills to other courses and to the problems of everyday life has been a challenge for the educational system. This session will assist participants to develop learning activities which enable their students to master transference skills.

POPE, RICHARD

Instructor, Toyon School

MON 3:15; STEV 1002

Total Quality Management Comes to the Thinking Classroom K-12, STAFF DEV, LANG, TACTIC/STRAT

Enjoy a humor-filled, enlightening and highly active session about making the 'Total Quality Management' process come alive in your Language Arts Program. Learn how to establish critical thinking goals for reading and writing. Discover ways to check for gaps between your goals and your students' true understanding. Acquire methods that determine the causes for these gaps and that create solutions to bridge these gaps. Construct ways of assessing the success of your solutions. Imagine this process of 'Continuous Improvement' energizing you, the students and their parents for years of learning enjoyment.

RADDUE, GEORGE

Founder/Director, Science Discovery Workshop, Science Discovery Workshop

TUES 1:30; STEV 2065

JOANN RADDUE

Consultant, Dominican College of San Rafael, Science Discovery Workshop

Project-Based Learning: Making Microscopes (A Two-Part Session) ELEM, STAFF DEV, SCI, ENV

Teachers will discover how children (grades 3-7) can learn to think critically as they solve real-world design problems encountered during the construc-

tion of this cross-disciplinary life/physical science project. Students walk in the footsteps of scientists and inventors as they investigate properties of optics, light, and mechanics while constructing a rugged and practical (and inexpensive!) learning tool. The instructor will punctuate the activities with both practical and theoretical background information. He argues that teachers who don't subject their students (and themselves) to the "chaos" of truly cross-disciplinary hands-on exploratory, "constructivistic" activities are missing out on a best-kept-secret of many successful teachers. He further contends that kids need to be led into certain exploratory real-world activities before they are thrust into the role of "inventor" or critical thinker. The instructor is a veteran teacher and school science consultant with extensive classroom experience with children preschool into high school, public and private, throughout California and internationally. Each participant will construct a microscope and receive how-to instructions enabling she/he to implement this project in the classroom.

Materials/Supplies: will be provided by the instructor, for a reimbursement consideration of \$7.00 materials per participant.

Note: This is a two-part session.

RADDUE, GEORGE

Founder/Director, Science Discovery Workshop, Science Discovery Workshop

TUES 3:15; STEV 2065

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RADDUE, JOANN TUES 10:30; STEV 2065
Consultant, Dominican College of San Rafael, Science Discovery Workshop

GEORGE RADDUE
Founder/Director, Science Discovery Workshop, Science Discovery Workshop

Critical Thinking Smorgasbord: Showcase of Project-Based Learning Activities ELEM, STAFF DEV, SCI, ENV

How can teachers structure classroom learning experiences that strike a balance between content and process, and help the student understand not only what is being done, but also *why*.

The projects on display, along with workshop commentary and a short tape on "complex instruction" will help workshop participants plan classroom activities and projects that are engaging for both teacher and student and help avoid the pitfalls of egos and self-esteem encountered when attempting to implement hands-on cooperative groups.

Participants will have an opportunity to examine materials and talk one-on-one with workshop leaders.

RANKIN, KAREN TUES 10:30; DAR 122
Assistant Professor, Nursing Department, West Georgia College

CAROL WILSON
Associate Professor, West Georgia College

The Fortune Cookie Syndrome: Self-disclosure as a Teaching/Learning Strategy for Critical Thinking NURS, SOCIO, PSYCH, FEM

A dialogue of self-disclosure between students and teachers creates a powerful and practical way to encourage critical thinking. Self-disclosure brings into consciousness one's prejudices and values; what Paul (1992) describes as the abilities and affective traits necessary for higher order thinking. Students are encouraged to read, write, speak and reason by comparing and contrasting ideas from competing perspectives (Paul, 1992). This workshop will explore the use of self-disclosure as an intentional teaching-learning strategy to role model a critical thinking process in nursing. The fortune cookie syndrome will be used as a metaphor for the influence of assumptions on critical thinking.

RASKIN, JONAH TUES 1:30; STEV 3008
Associate Professor of Communication Studies, Sonoma State University

Joseph McCarthy, Television, and the Limits of Critical Thinking MEDIA, POL, SOC STUD, H CON

Senator Joseph R. McCarthy used television to build his own career, and the anti-communist crusade in the 1950s. Moreover, television allowed itself to be used and abused by McCarthy. It also helped to destroy him at the celebrated Army-McCarthy hearings in 1954. McCarthy was not defeated through sound reasoning, logic or critical thinking, but in large part

because of his poor image, bad manners and shallow performance on television. McCarthyism has continued in American society, long after McCarthy's death because the media has continued to give coverage to the lies and untruths of demagogues.

REED, JEFF WED 10:30; STEV 2006
Mentor Teacher, Instructional Technology, Windsor Unified School District

Illustrations and the Information Age STAFF DEV, MID, TEST, COMP AID

Learn how to use carefully selected visual images to stimulate critical thinking and writing, and about Windsor Middle School's collaborative model for creating benchmark products to assess higher order thinking skills. Also includes making interactive books and illustrated Jeopardy-style computer games, and dialogue on copyright law, implications for classroom use, and the future. Those who attended last year's session (on Historical Images) are encouraged to come and share their ideas, insights, and innovations on how to use illustrations. Participants leave with instructional materials that engage students, integrate technology and thinking skills, and help implement the California Social Science and Language Arts frameworks, grades 5-11.

REED, JEFF SUN 10:30-11:10; IVES 119
Mentor Teacher, Instructional Technology, Windsor Unified School District

(Mini-Session) Using Assessment Rubrics for Critical Thinking MID/HIGH, COLL

Participants will practice how to use an assessment rubric developed for students and teachers to assess test essays on open-ended questions. This rubric is used by the Windsor Unified School District, grades 7-9, to assess students' understanding and knowledge, language development, and higher order thinking skills. It focuses on the intellectual standards of clarity, concept development, and use of evidence-examples to answer carefully crafted essay questions.

REED, JEFF TUES 10:30-11:10; IVES 119
Mentor Teacher, Instructional Technology, Windsor Unified School District

(Mini-Session) Leading Socratic Discussions in History Classes MID/HIGH, COLL

Participants will practice how to start discussions with carefully crafted open-ended questions, get students to share ideas, and use questions to guide and clarify meaning in classroom discussions on specific topics in history classes. This includes the use of an induction flow chart, where students take notes about what they are discussing, and thus create a written record they can use to prepare coherent, well-organized analytical essays.

RIPPY, EDWARD B.

Candidate, M.S. Education, C.S.U., Hayward

TUES 10:30; DAR 112

Critical Thinking, Fear of Freedom, and Authoritarianism *PSYCH, H CON, TACTIC/STRAT, BEG*

What are the psychological processes underlying critical thinking (or its lack)? Rather than focusing on the cognitive approach, we view (philosophically) critical thinking as a foundation of freedom and responsibility, and examine psychological theories regarding freedom for their implications for critical thinking and its pedagogy. We shall consider psychodynamic (Fromm's 'escape from freedom'), transactional (radical psychiatry), and social learning-based (Altemayer's Right-Wing Authoritarian personality) models of the human relationship to freedom and responsibility and construct a theoretical basis for experiments in pedagogy to enhance the teaching of critical thinking.

Experiential exercises will be included; participants are advised that these almost invariably involve some emotional threat.

ROSSOUW, GEDEON J.

Professor of Philosophy, Rand Afrikaans University

MON 1:30; STEV 1002

J. COLEY LAMPRECHT

Professor of Educational Psychology, Rand Afrikaans University

The IIT Approach to the Development of Thinking and its Multi-Cultural Application in South Africa *TACTIC/STRAT, COLL, STAFF DEV, MUL-CULT*

The IIT (independent and innovative thinking) approach to the development of thinking is an inter-disciplinary approach in which the following factors that have a bearing on the acquisition of thinking skills are addressed:

- The cultivation of a positive disposition towards the development of thinking,
- The creation of conditions conducive to the development of thinking,
- The cultivation of virtues that will dispose a person towards good thinking,
- An understanding of what good thinking entails,
- The teaching and assessment of thinking skills.

In the paper the general theoretical framework of the IIT approach is explained. In the rest of the session a video on the application of this approach in the multi-cultural South African context is presented and discussed.

RUDERMAN, RENÉE

Assistant Professor of English, Metropolitan State College of Denver

TUES 1:30; DAR 122

The Beat, the Word, the Feeling! Using the Techniques of Poetry to Generate Critical Thinking and Writing *LANG, ARTS, MID/HIGH, COLL, BEG, TACTIC/STRAT*

In this participatory workshop session we will practice some of the methodologies used in the poetry workshop. Teaching poetic techniques leads not only to the creation of poems, but to the understanding of complex and elusive thoughts and emotions. The facilitator, a published poet herself, will read some of her poetry, and discuss how to transfer these techniques and insights to various aspects of critical thinking and writing. *Do not be intimidated by the idea of using poetry (even your own) to teach and to deepen critical thinking.*

RYKIEL, JOAN D.

Professor of Psychology, Social Science Department, Ocean County College

MON 10:30; DAR 139

The Community College Experience: Is There an Effect on Critical Thinking and Moral Reasoning? *PSYCH, COLL, TEST, TACTIC/STRAT*

The purpose of this study was to assess the net effects of community college attendance on critical thinking skills and moral reasoning in community college students. The conditional effects of age and off-campus employment on the two dependent measures were also examined. A cross-sectional design with two predictor groups and a comparison group was employed. The Watson-Glaser Critical Thinking Appraisal measured critical thinking skills, the Defining Issues Test evaluated moral reasoning, and the Vocabulary subtest of the Multiple Aptitude Test was administered to assess the covariate. A multivariate analysis of covariance was employed to test the hypothesis. Discussion, speculations beyond the data, and recommendations follow.

SANZENBACHER, RICHARD

Associate Professor, Humanities Department, Embry-Riddle University

SUN 2:20-3:00; IVES 119

(Mini-Session) Working with Imagery from a Semiotic Perspective *TACTIC/STRAT, LANG, MID/HIGH, COLL*

The purpose of this mini-session is to help students develop a reflective/critical understanding of images and how their human experience and assumptions about the world are mediated by these images or symbolic processes.

All too many times students interpret the images or sign systems around them as unmediated and truth-giving. Based on the premise that the image is the primary underlying structure in language, media, and the mind, this pedagogy takes the students through a dialectical/dialogic sequence of

activities which provoke them to reflect on how imagery is historicized and thus ideologically laden, and how it shapes their perceptions of the world.

To discover on their own how imagery is the product of historical, economic, and other cultural forces and how these images construct their lives, the students participate in a series of sequential activities which emphasize the interdependence of imagery and language.

SAUNDERS, T. FRANK **MON 10:30; STEV 2006**
Professor Emeritus, University of Arizona, Double Think Inc.

AMY SCHLESSMAN
Evaluation Specialist, University of Arizona, Double Think Inc.

Double Think: Restructuring Content, Context, and Purposes for 21st Century Thinking *STAFF DEV, GEN*

Deliberately restructuring our thinking for higher quality of life is as easy as one! two! three! In this workshop, participants are introduced to a method with strategies for learners to identify their thinking styles, use alternative styles of their choice to generate creative solutions, and to rethink their professional and personal experiences to enhance future success. Session participants are invited to explore their thinking styles and to learn how to constructively evaluate their thinking and experiences. To avoid "hardening of the categories," the stylization of thought is creative fun. This process has been used in over 400 Think Tanks internationally in both the public and private sectors. The method is successful cross-culturally and designed to encourage lifelong learners of all ages. Don't think twice! Join us in this participatory *Double Think* session!

SCHWARZE, SHARON **MON 10:30; IVES 34**
Professor of Philosophy, Philosophy Department, Cabrini College

HARVEY LAPE
Adjunct Professor of Philosophy, Philosophy Department, Cabrini College

The Third Wave is the Oldest Wave: The Socratic Model *COLL, TACTIC/STRAT, INF LOGIC*

To be a critical thinker is to be committed to rational dialogue as the primary tool for decision making. This commitment to reason is not a commitment to force all discussion into some set of narrow logical algorithms but rather a commitment to engage in an open dialogue with yourself and/or others. This notion of rationality is inclusive rather than logocentric in that it takes seriously all contributions to the dialogue which are made in good faith and only excludes attempts to end the dialogue prematurely. We call this notion of rationality "Socratic dialogue" because it models itself on the methods and attitudes of Socrates.

SCRIBA, JOELYN **TUES 3:15; IVES 35**
Chair, Department of Nursing, Bemidji State University

Critical Thought as a Personal Journey *FEM, NURS*

Although increasing numbers of registered nurses are continuing their education in baccalaureate nursing programs, how their professional perspectives emerge is not well understood. The purpose of the study was to examine the nature of the registered nurses' experiences in learning as perceived by the registered nurses engaged in baccalaureate education. The qualitative study involved individual and group semi-structured interviews and critical incidents. Central to the data analysis is description of critical thought, and learning as nonlinear, unpredictable, emotional, powerful, and personal. The data will be examined in relation to adult learning literature associated with critical thinking and transformation learning. Educational strategies based on implications from the data will be addressed.

SHVYRKOV, V. **TUES 1:30; STEV 3049**
Lecturer, Management Department, Sonoma State University

Principles of Critical Thinking in Statistical Science *TEST, BUS, MATH/SCI, TACTIC/STRAT*

All reasoning is based on statistical information. But this information is often "misused to advance the interests of a variety of groups..." (R. Paul, p. 181). Moreover, the quality of statistical information is not tested by conventional statistical methods. To assess data quality, the following principles of critical thinking must be applied:

1. Monism vs. pluralism (faith in reason)
2. Intellectual integrity (truth) vs. improbity (lie)
3. Axioms vs. unwarranted assumptions
4. Consistency vs. inconsistency (between theory and practice)

SIDES, MARIAN B. **TUES 3:15-3:55; IVES 119**
President, Education Enterprises, Inc., Education Enterprises, Inc.

(Mini-Session) Analyzing Assumptions Underlying Critical Thoughts
TACTIC/STRAT, NURS, STAFF DEV, HEALTH, COLL

The purpose of this strategy is to help learners recognize, interpret, and analyze assumptions underlying critical thoughts and actions. Meaningful and productive interactions are based on accurate recognition and interpretation of assumptions that characterize the thinking process. In this mini-session participants will be introduced to thought structures that shape individual paradigms and modes of thinking.

SIMPSON, PHYLLIS L. TUES 1:30; DAR 112
Developmental Reading/Critical Thinking Instructor, Southeastern Louisiana University

MINDS: Architectural Supplies for the Instructional Designer COLL,
 MID/HIGH, LANG, TACTIC/STRAT

The MINDS strategy can be utilized by any critical thinking teacher to better preplan for a "semester vision" that will set the stage for better student learning via hands-on activities that involve all ten elements of reason. A myriad of activities will also be described and introduced to delete any thought of a lecture format in today's critical thinking classroom. Those teachers in attendance will be taken through an actual exercise called "Triangular Theory of Love" to demonstrate the aspects of the acronym, MINDS (materials, inquiry, introspection, decision, and assessment) as a useful teaching tool that can also become an independent student strategy. Then those in attendance will be allowed to choose 1 of 22 critical thinking activities in a handout and will construct their on MINDS design on that activity (example: return to sender, crib sheets, what's wrong with this picture).

SKOOG, KIM WED 10:30; DAR 139
Associate Professor of Philosophy, Division of Humanistic Studies, University of Guam

A Pluralistic Model of Knowledge ADV, PSYCH, MUL-CULT, SOCIO

This presentation will identify the diverse ways through which individuals explore and know the world. Besides rational and empirical observation, people frequently perceive reality from aesthetic, spiritual, or intuitive points of view. It must be recognized that these are not mutually exclusive modes of inquiry, but mutually supportive avenues of understanding. This presentation will attempt to identify the specific characteristics of each mode of knowing and set out the distinct standards and criteria that are met by each type. It will be argued that each type of knowing is important and should be developed if we are to actualize our full potential as thinking and experiencing beings.

SKOOG, KIM TUES 3:15; STEV 3049
Associate Professor of Philosophy, Division of Humanistic Studies, University of Guam

A Multicultural/Critical Thinking Reader ELEM, MUL-CULT, ARTS, SOC STUD

This session will present the first look at a student reader (elementary school level) that is designed to bring out multicultural themes while at the same time require the student to engage in critical thinking about specific topics developed in the stories. This reader is composed of short stories or folklore taken from different island cultures in Micronesia(South Pacific). Some discussion will cover how this material is being used on the island of Guam to increase critical thinking abilities and cultural awareness in students within the Guam Public School System.

SMITH, LINDA Q.
Teacher, Sierra Middle School

TUES 2:20-3:00; IVES 119

(Mini-Session) Teaching Critical Thinking Through Chess K-12, BEG,
 TACTIC/STRAT, INF LOGIC

The purpose of this mini-session is to help students develop complex thinking skills. Between the ages of nine and fifteen a student will make a transition from concrete thinking to formal operations. The game of chess will help him accomplish this. When a chess player is trained in the touch move method of play, he learns to visualize his move and then to move his chess piece. With this training he begins to manipulate the pieces in his mind, search for patterns, and make plans. Chess is a powerful teaching tool not just a game. It is part of the curriculum of 30 countries. Research shows that scores in reading, math, and thinking are improved with chess instruction.

SMITH, LINDA Q.
Teacher, Sierra Middle School

MON 3:15; STEV 3049

Chess: A Thinking Machine That Works GEN, BEG, TACTIC/STRAT, TEST

If you're a chess player or not, let's get together and examine this ancient game of kings. In over 30 countries chess is used in the school curriculum. Educators are discovering that the game teaches profound lessons in thinking. Kids simply play and get smarter. In this session we will examine some current educational research, look at simple techniques in teaching the game, and count the many ways chess is relevant to our curriculum and school society.

STEELE, JOE M.

MON 1:30; DAR 139

Director, College Outcome Measures Program, American College Testing

Tasks for Critical Thinking: When is a Problem Just an Exercise?

TACTIC/STRAT, TEST, COLL, STAFF DEV

This workshop will contrast examples of student activities that claim to call for problem solving and critical thinking. It will identify differences between those tasks that are closely tied to topics, such as concepts covered in mathematics and science texts, those that are highly structured to converge on an intended answer, and a variety of tasks that represent fuzzy, ill-defined problems which may be defined by the student, may be cross-disciplinary in nature, and which may address complex problems having no clear-cut answer. Implications for assessment using various kinds of tasks will be discussed.

STEPIEN, WILLIAM J.

Director, Consortium for Problem-Based Learning, Consortium for Problem-Based Learning

MON 3:15; STEV 2065

SHELAGH A. GALLAGHER

Research and Development Consultant, Consortium for Problem-Based Learning, Northern Illinois University

Thinking Is More Than "Bumper Sticker" Reasoning TACTIC/STRAT, BEG, K-12

A plague of "bumper sticker" reasoning is upon the land. Citizens want simple answers to complex problems. A strong dose of problem-based learning (pbl) and critical thinking can help stamp out the virus. Problem-based learning uses real-world, ill-structured problems as the vehicles for developing problem-solving ability and a significant knowledge base, simultaneously, in students with a range of abilities, elementary through undergraduate school and across the disciplines.

This session will include a demonstration of an ill-structured problem, review of the steps for finding and designing problems for the classroom, and discussion of how teachers become metacognitive coaches and use authentic assessments within a problem-based learning system.

STOUT, CANDACE JESSE

Associate Professor of Art, University of Georgia

WED 10:30; STEV 2065

Critical Thinking and Criticizing Art ARTS, TACTIC/STRAT, COLL, MID/HIGH

This presentation describes how an "organic" model of art criticism can serve as a generative source for critical thinking. If we conceive of art criticism not as a fixed model or an algorithmic process, but of something organic, capable of growing and changing in response to environmental influences, art criticism has the potential to become one of the most powerfully fertile seedbeds for higher-order thinking in the visual arts. This presentation will define art criticism for instructional purposes, present methods for teaching art criticism as a mode of critical thinking, and provide authentic examples of the quality of critical thinking generated through the study of art criticism in high school and college art classes. The approach to this workshop is dialogic. Participants can expect a lively interchange of teaching experiences, philosophies, and instructional strategies.

STREAN, WILLIAM B.

Assistant Professor of Physical Education and Recreation, University of Alberta

MON 1:30; DAR 112

RUSS LINDGREN

Instructor, Social Sciences, Sonora High School

Critical Thinking About Sport/ Critical Thinking Within Sport GEN, PSYCH, BEG, MEDIA, H CON

Using presentation, discussion, and activities, the session will demonstrate the utility of critical thinking as a paradigm: (a) to consider sport in society and (b) to analyze strategic thinking in team sports. In the first part of the session, we will explore how it is important to do critical thinking about

sport in society. We will examine existing models of youth sport, intercollegiate athletics, and professional sports. In this section, we will draw from two empirical studies (one about youth sport and one about intercollegiate athletics). We will then do a moral critique of some contemporary issues in professional sport and how critical thinking can be used to develop some needed changes in the status quo of coach-athlete relationships. After raising questions about the social construction of sport, we will show how critical thinking is used by coaches and athletes, based on a study of Canadian Interuniversity teams. Future directions will be discussed with respect to ongoing work that is looking at constructs such as perceived control and autonomy (e.g., Patrick et al., 1993; Eccles, et al., 1991), freedom (Frankl, 1984; Westcott, 1988), intrinsic motivation (e.g., Deci & Ryan, 1985), authority and obedience (e.g., Kelman & Hamilton, 1989), and responsibility, which have been shown to be related to a variety of psychosocial and developmental outcomes in instructional settings.

TAN, SHIRLEY

Head of English Language and Literature Department, Raffles Girls' School Secondary

TUES 4:05-4:45; IVES 119

LIM TOCK KENG

Lecturer, C.A.R.E., Nanyang Technological University

(Mini-Session) The Community of Inquiry Approach to Critical Thinking

BEG, MID/HIGH, MUL-CULT, TACTIC/STRAT

Raffles Girls' School initiated the Philosophy for Children program in January 1993 to promote critical thinking of students in a community of inquiry. It introduces students to philosophical issues through the discussion of passages in specially written novels. The teacher attempts to create a community of inquiry in the classroom to encourage students to discuss philosophical issues embedded in the novels. This workshop shares the difficult experiences the teachers had at the introductory stages of the program and strategies the teachers carried out to overcome the problems.

TANNER, PAUL

Instructor, English Department, Utah Valley State College

TUES 3:15; DAR 139

Audio Tape as a Feedback Tool: Increased Transfer of Critical Thinking Skills TACTIC/STRAT, TEST, COLL, MID/HIGH

The vast majority of teachers use red pencil notes as their primary method of providing students with feedback. The very nature of notes, e.g. writing, causes the notes and teacher's mind to be almost entirely focused on errors and how to repair them. This session will question what happens in terms of learning using that method of critique compared to one that is delivered through audio tapes, where the focus is on the "why" as well as the "what." It is modeling critical thinking where it truly means something to the student.

This discussion will examine the experience of using tapes as the response vehicle in four semester long classes; and will examine the results in terms of the improvement in writing quality, of the higher levels of critical thinking exposed in the writing, and of the positive student responses. The reasons, at present, are partially obvious and partially obscure. The session participants will be introduced to the concept, will experience a taped response as a student would experience it, will examine the reasons for the apparently positive results, and will receive workshop instruction in how to apply the process.

TANNER, PAUL WED 10:30; IVES 34
Instructor, English Department, Utah Valley State College
Critical Writing: Getting from Wording to Meaning TACTIC/STRAT, COLL, MID/HIGH, TEST

Teachers everywhere have a common challenge: getting students to become comfortable enough with how they are writing things, e.g. grammar and syntax, to be able to truly deal with *what* they are saying. The answer generally does not lie in the part about the student becoming skilled at grammar and syntax, but in the part about becoming comfortable with their writing. Writing has become such a frustration for most students that it can and often does get in the way of good critical thinking. This session presents ideas from the "writing to learn," and "writing across the curriculum" movements in the field of rhetoric as they apply to this problem. When writing is stripped of its need to be "correct," and when students learn to distinguish writing to learn, writing to communicate and writing to publish from each other, they are freed to use writing to its fullest: to think, to examine and to create.

The participants will practice the process and will learn how to apply writing in their classes to improve the critical thinking of their students, and to do it without increasing their current workload.

TAYLOR-JONES, TRISH SUN 3:15; IVES 35
Independent Consultant, Trish Taylor-Jones Training and Consulting
A Critical Thinking Road Map to Problem Solving: Avoiding the Pitfalls BUS, STAFF DEV

No one can escape the need to solve problems; simple and mundane as well as complex and extraordinary. Given the experience we have acquired and the abundance of "how to" theories, one would think that we would all be excellent problem solvers. But how often do we set out to solve a problem, assuming that we have thought critically about it, only to find that after much time and effort the problem is not solved adequately. In the worse cases, we realize that what we thought was the problem wasn't the problem at all or that we didn't establish criteria for determining if the problem was solved or not. By approaching problems using elements of thought, by applying standards to our process, and by striving to maintain effective ways of thinking, we can all save time and avoid frustration. This session

will present a "road map" which acts as an overview for problem solving as well as detailed worksheets. The worksheets include flags to help identify pitfalls and strategies to help avoid them. We will also work in small groups, using the road map to begin working through a specific problem.

TÖRZS, FREDERIC WED 10:30; DAR 122
Learning Specialist, Critical Thinking Program, Massachusetts Bay Community College
Rational Choice and Strong-Sense Critical Thinking H CON, PSYCH, COLL, INF LOGIC

As the concept of critical thinking and our understanding of what it means to be a rational person develops beyond the formal and informal requirements of logical analysis, we are faced with new questions. This presentation/dialogue considers one of these questions: are the goals of strong-sense critical thinking rationally achievable?

There are six related issues which we will address, either briefly or in depth depending on time constraints: whether the goals of strong-sense critical thinking demand a 'negative dialectic,' i.e., to what extent is strong-sense critical thinking a process of "stripping away" as opposed to "adding-on;" in what way is a reason a cause of an action; what is an intention; what affect our attempts to reduce dissonance have on the thinking process; the difficulty in stepping out of a self-justifying system, and how certain forms of irrationality such as the intellectual and moral fallacy of by-products (J. Elster), self-deception, akrasia, and adaptive preference formation relate to the goals of strong-sense critical thinking.

As a starting point for our discussion, we will consider various problems such as 'the case of the neurotic horse,' whether people who cannot satisfy their desires are more autonomous than people who can, paradoxical intention, etc. At the end of this session we will all have, hopefully, a more comprehensive grasp of some issues surrounding strong-sense critical thinking and greater insight into the complexities of becoming fully rational human beings.

TROW, RUBY WED 10:30; DAR 112
Professor of Nutrition and Consumer Sciences, California State Polytechnic University, Pomona

MARILYNN FILBECK
Associate Professor, Family Environmental Sciences, California State University, Northridge

Jigsaw: A Collaborative Strategy for Teaching Critical Thinking TEST, TACTIC/STRAT, COLL, BEG

Jigsaw is a popular, recognized cooperative learning strategy. While widely used at the elementary and secondary levels, few examples have been available in higher education. This session will focus on the effectiveness of this strategy as a tool for teaching the critical thinking process at the college level. Teachers will participate in a simulated classroom learning activity using this technique.

UNRAU, NORMAN J.

SUN 1:30; STEV 2006

Associate Professor, School of Education, Division of Curriculum and Instruction, California State University, Los Angeles

Toward a New Wave Conception of Critical Thinking: A Process, Dispositions, and an Outlook in a Context COLL, MID/HIGH, TACTIC/STRAT, STAFF DEV

Can a comprehensive and rigorous meaning be given to critical thinking that integrates the insights of "first and second wave" practitioners with an interpretive or hermeneutic perspective? The purpose for this session will be to address that question. A "new wave" conception of critical thinking that is accessible to teachers will be presented for exploration and discussion. Critical thinking will be viewed as a process moved by dispositions and grounded in a transformative outlook. These aspects of critical thinking will be contextualized in the cognitive and social worlds of students, teachers, and their classrooms. Following the paper presentation and discussion, suggested strategies for the development of more reflective, rigorous thinkers will also be presented, including thinking through talking, reading, and writing.

VANETZIAN, ELEANOR

SUN 1:30; IVES 34

Assistant Professor of Nursing, University of Massachusetts

BARBARA CORRIGAN

Clinical Assistant Professor, University of Massachusetts

"Prep" for Class and Class Activity: Key to Critical Thinking HEALTH, NURS, TACTIC/STRAT

The demands of practice in today's health care environment require that nursing professionals be prepared to manage problems and make decisions in complex patient care situations that are often ambiguous and uncertain. Students at all levels of their education need opportunities to practice analyzing patient situations, formulating problems and proposing solutions that enable them to function competently in increasingly more autonomous roles (Miller & Malcolm, 1990, Woods, 1993). This workshop will prepare faculty members to develop a two-part teaching strategy that provides opportunities for students to develop critical thinking skills when preparing for class and participating in one or more class activities. Critical thinkers are able to use the elements of reasoning and intellectual traits in the process of "figuring something out (Paul, 1994, p. 11)" with sensitivity to universal intellectual standards. Identifying and challenging assumptions and exploring alternative ways of thinking and living are two essential activities when students are developing critical thinking skills: (Brookfield, 1987).

VOORHEES, BURTON

WED 10:30; STEV 2049

Professor of Mathematics, Mathematics Department, Athabasca University

Could a Computer Ever Think—Critically or Otherwise? MATH/SCI, ADV, INF LOGIC

Since the first days of the computer age, there has been a running debate on the question of whether or not a computer will ever be able to think, or

become self-conscious in the way that human beings are self-conscious. That such is possible with only technical extensions of the current state of the art is known as the "strong AI" position. One of the foci of dispute in this debate centers on the Godel incompleteness theorems. Opponents of computer thought have made the claim that these theorems demonstrate that no computer will ever be able to match the human mind, even in mathematics. Proponents of computer thought have rebutted these arguments, suggesting that the Godel theorems are irrelevant to the issue. Most recently these discussions have been catalyzed by two books by Roger Penrose, *The Emperor's New Mind*, and *Shadows of the Mind*, which put the anti-strong AI argument in a particularly telling form through use of a *reducto ad absurdum*.

In this session an extension of the Penrose approach is considered, in which the implications of combining the strong AI thesis with the consequences of the Godel theorems is considered. The implication of these, when taken together, is that we live in a universe which is in principle unknowable. This is a direct negation of the idea, going back to the Greeks, that the universe can be rationally known. In the context of the present conference, this raises the question of whether or not critical thinking is formalizable, and if so, whether or not the formal system which results is consistent.

WEBSTER, YEHUDI O.

SUN 10:30; DAR 108

Professor of Pan-African Studies, California State University, Los Angeles

Are There White and Black People? Reasoning About Racial Classification GEN, SOC STUD, MUL-CULT

Description: Criticisms of racial classification have come from every discipline except philosophy. Yet racial classifications exhibit a multitude of logical flaws, as in the syllogism: "I have white skin. Therefore, I am a white." "People regard themselves as black. Therefore, race is a reality." "Only black people have been enslaved. Therefore, white people cannot appreciate the black experience." This presentation will outline the theoretical-educational source of these and other fallacies, and indicate how critical thinking skills must be integrated with courses on racial and ethnic relations. It will therefore also address hidden (realist and relativist) philosophical inputs in the training of teachers and social scientists.

WEBSTER, YEHUDI O.

SUN 3:15; DAR 108

Professor of Pan-African Studies, California State University, Los Angeles

Multi-Culturalism and Critical Thinking: Compatibility or Competition? GEN, MUL-CULT

Multi-culturalism has been proposed as a solution to some educational and social problems. It promises to reduce stereotyping and prejudice, increase sensitivity to America's cultural diversity, and combat the legacies of racism and ethnocentrism which permeate education and society. Advocates of critical thinking make similar promises. I argue that a critical examination of the dominant conception of multi-culturalism would discover that it is

incompatible with critical thinking and cannot deliver on its promises. To mention three incompatibilities: 1) Multi-culturalism downplays the role of reasoning in human behavior. 2) Cultures cannot be taught or cultivated in schools, but conceptions of culture used in anthropology can be analyzed, (this would not be called Multi-culturalism). 3) Multi-culturalism affirms relativism: each individual or group has its own "perspective"; all perspectives are relatively right. The alternative to multi-culturalism is to foster critical thinking about racial and cultural theories of society.

WEBSTER, YEHUDI O. **MON 3:15; DAR 108**
Professor of Pan-African Studies, California State University, Los Angeles

On Becoming a (Better?) Critical Thinking Instructor: The Elements of Thought GEN

This presentation will address some processes of infusing critical thinking in the classroom setting, specifically, conveying the ramifications of the elements of thought — the foundation of critical thinking instruction and critical thinking as a competency. Beliefs and propositions are the end-product of an infinite series of related assumptions, points of view (theory, paradigm, world view), premises, and inferences; they have implications, policy and behavioral consequences. All these elements are integrated by reasoning, and critical thinking is the conscious grasping of these elements and subjecting them to intellectual standards. Thinking about the elements of thought requires a commitment to learning, to educability, and this commitment should be infused in every student, whether in the natural sciences, social sciences, or humanities. Grasping the elements of thought is a first step in intellectual adventures, in the construction of a critical thinking classroom, and in becoming a teacher in the Socratic sense.

WEBSTER, YEHUDI O. **MON 1:30; DAR 108**
Professor of Pan-African Studies, California State University, Los Angeles

Are There White and Black People? Reasoning About Racial Classification GEN, SOC STUD, MUL-CULT

Description: Criticisms of racial classification have come from every discipline except philosophy. Yet racial classifications exhibit a multitude of logical flaws, as in the syllogism: "I have white skin. Therefore, I am a white." "People regard themselves as black. Therefore, race is a reality." "Only black people have been enslaved. Therefore, white people cannot appreciate the black experience." This presentation will outline the theoretical-educational source of these and other fallacies, and indicate how critical thinking skills must be integrated with courses on racial and ethnic relations. It will therefore also address hidden (realist and relativist) philosophical inputs in the training of teachers and social scientists.

WEINSTEIN, MARK **TUES 10:30; STEV 1002**
Associate Director/Institute for Critical Thinking, Montclair State University

A Comprehensive Approach to Instructional Planning GEN

This workshop will offer the theoretic framework for instructional planning within regular school subjects and at all grade levels, including post-secondary. After a presentation of the framework and a discussion of problems and possibilities, participants will be asked to work in groups exploring the model with others who share common interests and concerns.

The theoretic framework requires the identification of educational goals, helps faculty to identify relevant content and appropriate critical thinking skills, and addresses criteria for excellence in academic achievement.

WEN, SOPHIA MING-LEE **TUES 1:30; STEV 1002**
Associate Professor, Department of Education, National Taiwan Normal University

The Four Modes of Critical Thinking: Its Nature and Critique PHIL, SOCIO, BEG

The main task of this session is to redefine the nature of critical thinking from a comprehensive history with a rigorous approach. This session also meets with the third wave research concerns. The nature of critical thinking is clarified in two ways: investigating its general characteristics, and examining its noesis. The four modes of critical thinking picked out from history are the supernatural mode, the empirical mode, the subject-dialectical mode, and the communicative mode. Critical thinking has common characteristics that are justified: skepticism, reflection, emancipating from irrationality, reconstruction and autonomy. Further, dialectical method and the concept of quasi-universality are emphasized. Also, two crises of critical thinking are mentioned. Finally, learning by thinking and learning by experiencing are suggested for teaching critical thinking.

WILLIAMSON, JAN **SUN 1:30; STEV 3008**
Educational Consultant, Northeast Technical Assistance Center

Alternative Assessment: Enhancing and Monitoring Student Thinking TEST, GENCOLL

This participatory workshop will explore how alternative assessment, including performance assessment, can help students to become more self-directed learners and more insightful thinkers. In addition, the use of alternative forms of assessment can give the teacher more meaningful feedback about students' metacognition and about how deeply and accurately students are thinking about content. Participants will be provided with specific examples of different forms of classroom assessments and they will then be asked to devise practical ways of expanding the role of assessment in their classes or schools.

WILLIAMSON, JAN TUES 3:15; SU 100
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Panel Discussion of Critical Thinking in the K-12th Grade Curriculum
K-12

Noted educators will participate in a discussion of the state of the field, including what strategies are being used to bring critical thinking into instruction, the problems or pitfalls most often encountered in infusing critical thinking into the curriculum, and the projected future of critical thinking in the elementary and secondary school.

WILLIAMSON, JAN MON 1:30-2:10; IVES 119
Educational Consultant, Northeast Technical Assistance Center

(Mini-Session) Writing and Critical Thinking: Action Research at One College *Coll*

This session will describe how a small liberal arts college, Claflin College in Orangeburg, South Carolina, obtained and used grant funding from the Bush Foundation to implement a critical thinking program. Information will include the staff development plan for the faculty, some of the instructional strategies which have been implemented, the research design for assessing the effects of instructional changes, and the results of the first two years of the three year research project.

WILLSEN LORAND, JANE TUES 1:30; DAR 108
Independent Consultant

How Do I Know if My Thinking is Good Thinking? Teaching Intellectual Standards to Middle School and High School Students *MID/HIGH, STAFF DEV*

Students tell us that their papers are good papers when the teacher likes them. How can they use INTELLECTUAL STANDARDS (Clarity, Depth, Relevance, Accurate, etc.) to help them during the process of their thinking and writing, and also have them to guide them as they self-assess their work?

If students do not know enough to recognize if their work product is poor, good, or excellent, they do not have on board the background, reference points, language and insight to do the assignment in the first place. They need to have direct instruction in the language of intellectual standards. They need to be brought from the concrete to the abstract. They need examples and models they can imitate, and then use independently. Without standards, students will continue to be dependent, ineffective, and lack confidence in their own thinking. Teachers need help and this workshop provides hands-on strategies for this direct instruction.

WILLSEN LORAND, JANE MON 3:15; ART 108
Independent Consultant

Self-Assessment at the High School and College Level: Peer Editing, Group and Individual Assessment in Speaking and Writing *MID/HIGH, COLL, STAFF DEV*

The amount of writing and speaking students need to do far exceeds the amount of reading and listening teachers can provide. Thus far, teachers have logically responded to this reality by limiting the writing and speaking assignments they give. There is an alternative model that works!

Students need to learn how to assess their own work and the work of others. "Is this a *clearly stated* question?" "Is the purpose of this essay significant?" "Is this point *consistent* with the first part of the paper?" Students report that they learn more through looking carefully at the work of their peers, comparing and assessing it *according to standards* that they have been taught, than they learn in any other aspect of their courses. And, of course, self-assessment abilities and insights build from course to course, and students carry substantial tools out into the world of work.

Self-assessment is fundamental to developing judgment, and this session provides not only a framework, but strategies, such as phrasing and direct instruction in the intellectual standards, to support teachers and administrators who see the potential and the need for self-assessment.

WRAGG, DIXON MON 3:15; STEV 2049
Freelance Writer/Speaker

Critical Thinking and Social Responsibility *H CON, SOCIOL, BEG*

The main explicit function of an educational system is to educate people, which implies imparting critical thinking skills. Its main tacit function is to uncritically indoctrinate people with societal mores. The two are fundamentally in conflict, although most educators prefer to ignore that uncomfortable fact. To the extent that the world's problems are caused by existing societal mores, "education" which uncritically teaches social acceptability as a valued norm perpetuates these problems. Educators, then, have a social

responsibility to replace indoctrination with real education. I will present the basic concepts, and then we will have a spirited discussion through which we will explore how we can confront this issue without losing either our sanity or our jobs.

WRAGG, DIXON
Freelance Writer/Speaker

MON 1:30; STEV 2049

Reasoning with Irrational Persons *PSYCH, H CON, BEG*

We have all had the frustrating experience of trying to reason with extremely irrational persons (and we all have been irrational to varying degrees ourselves). In this workshop, we will look at the underlying causes of irrationality and share some ideas as to how to deal constructively with it, including a look at some tried-and-true principles of communication. The format will be a presentation of the basic concepts, followed by spirited discussion. If time allows, we may also do a role-play or two.

WRAGG, DIXON
Freelance Writer/Speaker

SUN 1:30; DAR 112

Nonrational Determinants of Thinking, and Implications for Critical Thinking Pedagogy *PSYCH, SOCIOL, MUL-CULT, BEG*

Most presentations of critical thinking emphasize specifically cognitive factors such as rules of logic. But nonrational (social, political, cultural, economic, geographical, emotional, and psychological) factors inform our perceptions, beliefs and values more than we like to admit. In this lecture-discussion, I'll present examples of how these factors affect our thinking, and we'll consider how to optimize our approach to teaching in light of this information.

YAMEEN, DEANNA L.
Associate Dean, Career Programs, Massachusetts Bay Community College

MON 3:15; STEV 3072

MARITA PRATER
Staff Education, Children's Hospital

Interdependent (Critical) Thinking: A Bridge Between Education and the Workplace *COLL, STAFF DEV, ADV, NURS*

This interactive session will allow participants the opportunity to explore critical thinking as a framework that allows us to bridge the gap between education and the workplace. Report after report from our educational institutions, government agencies, and the workforce point to the as yet unbridged gap between higher education and the workplace. This problem stems from a viewpoint which is outdated and relates more to issues of training and socialization than true education. In making the theoretical shift from dependent to independent to interdependent (re: critical) thinking, we begin to build a framework that meets the demands of the class-

room, the workplace, and, most notably, the educational needs of students/employees.

ZWICKER, DAVID

Co-Director, Savvy and Safe

SUN 11:20-12:00; IVES 119

(Mini-Session) SAVVY & SAFE: A Critical Thinking Approach to Self-Defense *STAFF DEV, BEG, PSYCH, HEALTH*

This presentation will offer a thinking, psychological approach to self-defense based on research from critical thinking and problem solving, sports psychology, crime prevention, and self-defense. It will begin by identifying misconceptions of self-defense, and show why traditional approaches have failed and why a psychological (as opposed to physical) approach is necessary. Next it will offer prevention and problem solving strategies for maximizing one's level of safety by controlling key variables in one's environment, such as time, light, and noise. It will also show how to respond to immediate dangerous situations in a variety of environments by using simple thinking models/heuristics, before and after our "fight or flight" response is triggered. Part of the presentation will also focus on metacognition and metaemotive self-management as well as dispositions particularly enabling for self-defense/personal safety.

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PHILOSOPHY

Critical thinking holds the potential for helping students learn how to learn, with discipline and depth, in any subject they choose to study. It offers the thinker the opportunity to develop well-grounded self-confidence in his or her ability to come to a well-reasoned idea on any issue or topic. It provides the developmental foundation for good judgment, a quality highly prized by all.

The Center for Critical Thinking and Moral Critique is based on the singular goal of helping critical thinking reach its potential. The objectives of our research, our teaching, our writing, and our critique is to reach out to students, to teachers, to administrators, to parents, to community leaders, and to business people who are all striving to develop well-reasoned ideas, and to develop people of good judgment.

PRINCIPLES

- Every person is capable of improving his or her thinking.
- We learn what to think only as we learn how to think.
- Critical thinking always involves the thinker's continuous self-assessment of the thinking as the thinking develops.
- We will gain significant knowledge only if we value gaining it.
- To be educated means to predictably come to well-reasoned ideas, beliefs, and decisions.
- Speedy and shallow coverage, which is the survey approach to education, often produces mislearning which retards deeper understanding and tends to breed intellectual arrogance.
- We all learn best by working with others, dialogically, and generating mutually supportive debate.
- Critical thinking requires that we recognize the limitations of our own point of view and seek truth above advocacy of our positions.
- We need intellectual criteria and standards by which to guide and evaluate our thinking as we construct meaning from our world.
- There are numerous pseudo critical thinking approaches being generated by textbook publishers and others. It is important to have criteria for the assessment of such approaches.

PLEASE CALL ...

The staff at the Center and the Foundation for Critical Thinking, committed to the furthering of critical thinking, welcomes inquiries via phone, fax, or E-mail. We will do our best to answer your questions or direct you to other sources, when appropriate. Inquiries regarding the conference, staff development services, and academic credit should be directed to the Center. Questions regarding Regional Workshops and critical thinking books and tapes should be directed to the Foundation. Below is a list of organizational and project managers. These individuals welcome your communications.

John Pruess	Manager, Foundation for Critical Thinking
David Grady	Coordinator, Center for Critical Thinking
Jessie Foster	Inservice Coordinator
Jon Pappas	Conference Presenter Representative
Monica Fioretti	Registration Coordinator
Charles Evans	Research Assistant at the Foundation
Emiko Lewis	Regional Workshop Coordinator
Peggy Bassham	Bookkeeper
Kristi Burrows	Staff Coordinator
Rena Ferrick	Shuttle Coordinator
Garth O'Brien	Shipping Manager
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THE NATIONAL COUNCIL FOR EXCELLENCE IN CRITICAL THINKING

With a solid core membership of leading educators as a foundation, the National Council for Excellence in Critical Thinking (NCECT) is working hard to expand its outreach and impact. The strategy is twofold: to staff research-reporting committees with bonafide experts in 75 domains and to establish regional and state centers for critical thinking.

The hopes of the National Council leadership are ambitious, no less than the establishment of NCECT representatives in every school district, college, and university. "Only with wide outreach can the message of the National Council transform classrooms at all educational levels," says Richard Paul, NCECT chair.

Unless educators come to understand the importance of intellectual criteria, they will not make the basic changes in teaching and assessment fundamental to sound educational reform. For informational material, please visit the Foundation for Critical Thinking representatives, in the Dining Commons.

National Council (NCECT)
4655 Sonoma Mountain Road
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phone (707) 546-0629,
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STAFF DEVELOPMENT

The Center for Critical Thinking and the Foundation for Critical Thinking offer five avenues for continuing professional development:

- **Inservice at your school or district:** For one day, two days, or longer we come to your institution to offer a seminar designed to meet your individual needs.
- **Regional Workshops:** Two exciting, interactive days that focus on the design of instruction.
- **National Academy:** A five-day event for individuals who plan to mentor others in the art of bringing critical thinking into the classroom or the place of business.
- **"How to Teach" Video Series (9 videocassettes):** This study course can be used alone, with a colleague or with a team of people.
- **Resource Materials:** We offer several books on critical thinking as well as video presentations by a variety of presenters that can be used for self-study.

INSERVICE

Our staff development specialists, committed to helping educators facilitate the development of student critical thinking abilities in schools, colleges, universities, can bring to your campus what we bring to educators in our regional workshops, or we will create a unique program to meet your specific needs.

Your educators will:

- Learn how critical thinking can enable students to learn in every classroom
- Explore strategies and tactics they can put to work immediately
- Discover how to engage students in the thinking you want and hold them responsible for the thinking they do
- See how and why self-assessment by students is so crucial.

Some thematic workshops we have developed by request are:

- Critical Thinking Across the Curriculum
- Socratic Questioning and Teaching Students to Question
- Intellectual Standards Across the Curriculum
- Reading and Writing as Modes of Thinking
- Remodeling Curriculum Lessons so that students are required to reason
- Self-Assessment and Critical Thinking.

Why Do It?

Critical thinking is not an isolated good unrelated to other important goals in education. Rather it is a seminal goal which, done well, simultaneously facilitates a rainbow of other ends. It is best conceived, therefore, as the hub around which all other educational ends cluster. For example, as students learn to think more critically, they become more proficient at historical, scientific, and mathematical thinking. Their test scores and self-confidence increase. Finally, they develop skills,

abilities, and values crucial to success in everyday life. All of this assumes, of course, that those who teach have a solid grounding in critical thinking and in the teaching strategies essential to it.

Make Long Term Plans

Critical thinking is foundational and, when taught well across the curriculum, has implications in virtually every dimension of education. However, critical thinking transfers only to the extent that it is taught with global transfer in mind. A superficial understanding of critical thinking will not lead to transfer across subject areas nor to significant application in everyday life. A long-term faculty development plan is best, since instruction rarely accentuates reasoning and critical thinking, since many who teach are habituated to didactic lecture as the main mode of instruction, and since it takes considerable time to modify established teaching habits and the thinking that underlies them. It makes the most sense to think-of inservice for critical thinking as generating start-up momentum which is to be followed up in some specific way later on. It is more useful to begin with a two-day than a one-day workshop, for the more substantial the initial understanding, the more likely it will result in long range change.

Critical Thinking in the Workplace

Due to rapidly changing technology, along with ever increasing complexity and interdependence, today's workplace calls for employees with the ability to think critically on the job. Yet, most employees are not equipped with the reasoning skills they must have to survive in this complex world of work. To reason well on the job means to think critically on the job. As more and more managers come to realize this, we are being increasingly called upon to provide critical thinking workshops and staff training programs for the business community, assisting executives and managers to improve their management skills through developing their own critical thinking abilities, and facilitating the development of reasoning skills of staff at various organizational levels. Call on us to prepare a staff training program to fit the unique needs of your organization.

REGIONAL WORKSHOPS

We are offering three regional workshop options next year: our standard workshop on infusing critical thinking into instruction, a Socratic workshop, and a workshop on critical thinking and the process of assessment. The standard workshop is offered at all six locations. The Socratic workshop is offered in Boston, Minneapolis, Portland, and Orlando. The Assessment workshop is offered in Kansas City and Phoenix. First-time participants may enroll either in the standard workshop or in the more specialized workshops. Many persons who have already taken our basic workshop enroll in the Socratic and Assessment workshops. All workshops run from 9:00 A.M. to 5:00 P.M. Saturday and Sunday.

You will appreciate the practicalness and the theoretical rigor that underlies these workshops. Your intellect is challenged; your practical sense is fulfilled.

In the standard workshop you learn how to teach your content as a mode of thinking (e.g., Biology is taught as biological thinking; Sociology as sociological thinking; Art as artistic thinking.) You learn how to foster the basic criteria and standards for good thinking (clarity, precision, accuracy, relevance, depth, breadth, logicalness). You learn how to model thinking, engage students in thinking and hold students responsible for a high level of performance.

In the Socratic workshop, you learn how to teach through the systematic asking of questions. You learn how to ask questions that force students to take their thinking apart. You learn how to ask questions that force students to consider crucial standards for thinking. You learn how to ask questions that focus on both domains of thought and systems of thought.

In the workshop on the process of assessment, you learn how to use assessment effectively and how to teach students to use it. Through a better understanding of the process of assessment, you will be better able to assess: classroom design, modes of testing, standardized tests, student performances, students' reading, writing, speaking, and listening.

NATIONAL ACADEMY

The Academy for Excellence in Critical Thinking is an in-depth, five-day interactive seminar for educators and administrators who seek to mentor others in critical thinking in their respective departments, institutions, and districts. The Academy is designed to help you aid and mentor others in responding to students' needs:

- to self-educate,
- to reason deeply and clearly,
- to respond to change appropriately, and
- to live in community with respect and knowledge of the demands of fairmindedness, intellectual humility, empathy, and integrity.

This exciting week will be filled with self-reflection and writing. The experience will bring you closer to an intimate knowledge of your own thinking processes, insight into the processes of your colleagues, and it will bring you practical tactics and strategies that will enable you to make a difference in the lives of your students, to be the educator that you strive to be.

We will train you to:

- teach educators tactics for creating a dynamic, critical thinking classroom,
- teach administrators how to conduct effective meetings using a critical thinking model,
- teach educators how to promote critical reading and listening skills in all aspects of their program, and
- teach educators how to lead Socratic discussions.

The format will vary. The challenges will be attuned to those with high energy and commitment. You will not only enjoy the week, but come away with renewed faith in what education can be. You will look long and hard at how you can effectively use your professional energy to do the most for those most deserving of your help.

We recognize that some will come with little background. We are prepared to meet your needs, whatever your previous experience. Seminars run from 8:30 A.M. to 11:45 A.M. and 1:30 P.M. to 4:30 P.M. each day. You will be practicing teaching your peers, which will build your confidence. All participants will have the opportunity to volunteer to be videotaped while trying out new techniques, group activities, and re-designed lessons, while other participants critique your efforts.

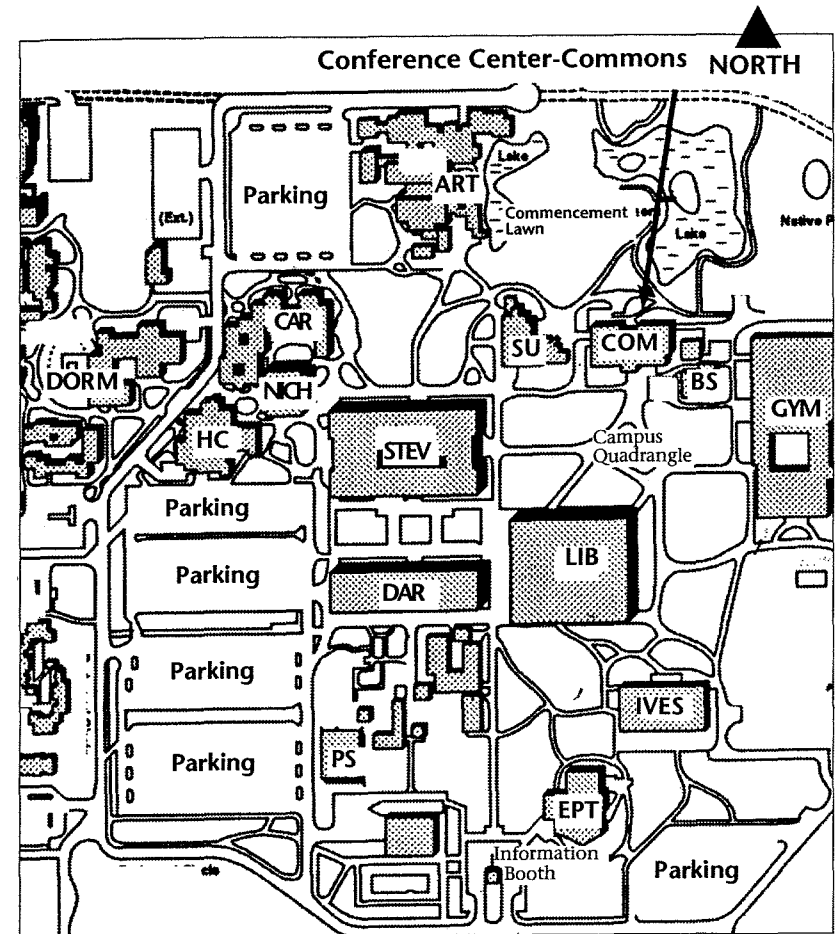
Session Audience Codes

ELEM	.....	elementary school
MID/HIGH	.....	middle/high school
K-12	.....	kindergarten-12th grade
COLL	.....	post-secondary education
ADV	.....	advanced session
ARTS	.....	the Arts
BEG	.....	beginners in critical thinking
BUS	.....	business
COMP AID	.....	computer assisted instruction
ENV	.....	environment
FEM	.....	feminism
GEN	.....	general
HEALTH	.....	health sciences
H CON	.....	human conflicts
INF LOGIC	.....	informal logic
LANG	.....	language arts/English
MATH/SCI	.....	math/science
MEDIA	.....	media, media literacy
MUL-CULT	.....	multi-culturalism
NURS	.....	nursing
PEACE	.....	peace studies
POL	.....	politics, political science
PSYCH	.....	psychology
SOC STUD	.....	social studies
SOCIOL	.....	sociology
STAFF DEV	.....	staff development
TACTIC/STRAT	.....	teaching tactics & strategies
TEST	.....	testing and assessment

IMPORTANT PHONE NUMBERS AND LOCATIONS

Specially-marked on-campus phones are available throughout campus. When calling on campus from one of them, dial the last four digits only.

Campus Operator (Information, Activities)	664-2880	
Conference Info Center	664-4156	Student Union, Downstairs
Shuttle Information	664-2901	Student Union
Housing Service Desk	644-2530	Zinfandel
Public Safety (Campus Police)	664-2143	Foundation Center Buildings
Lost & Found	664-2317	
Parking Information	664-2143	
Emergency Only	664-2911	
Academic Credit: Office of Extended Education	664-2394	Stevenson 1012



Sonoma State University Central Area Legend

ART	Art Complex	IVES	Ives Hall; Warren Auditorium
BS	Bookstore	LIB	Ruben Salazar Library
COM	Commons (Cafeteria)	PS	Public Safety
CAR	Rachel Carson Hall	NICH	Nichols Hall
DAR	Darwin Hall	HC	Health Center
DORM	Residence Halls	STEV	Stevenson Hall
EPT	Evert B. Person Theatre	SU	Student Union
GYM	Gymnasium		

Three Waves of
Critical Thinking
Research and
Practice

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The International Conference fully adheres to
the principles and standards of the National
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