

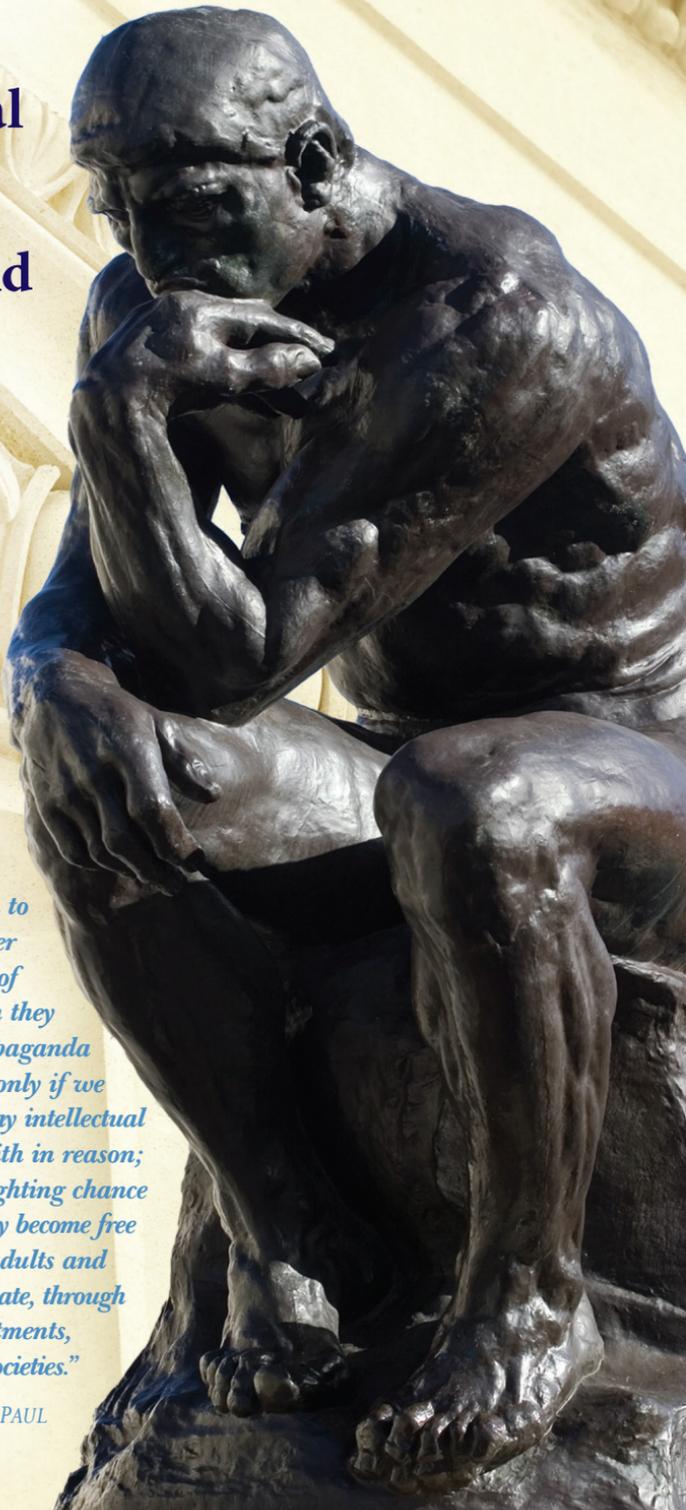
The 37th International Conference on Critical Thinking and Educational Reform

Cultivating
Fairminded
Critical Thinking
Across Education
and Throughout
Human Societies

*July - August
2017*

“Only if we raise children to think critically, as a matter of course, about their use of language, the information they take in, the nature of propaganda which surrounds them... only if we reward those who... display intellectual courage, humility, and faith in reason; only then do we have a fighting chance that children will eventually become free and morally responsible adults and hence help eventually to create, through their example and commitments, genuinely free and moral societies.”

— RICHARD PAUL



Introduction to the Conference

The Center and Foundation for Critical Thinking have together hosted critical thinking academies and conferences for thirty-seven years. During that time, we have played a lead role in defining, structuring, assessing, improving, and advancing the principles and best practices of fairminded critical thought in education and society. Our annual conference offers a unique venue for improving our understanding of critical thinking, as well as our ability to foster it more substantively in the classroom and in all aspects of our work and life.

Throughout our work we emphasize the importance of fostering a substantive conception of critical thinking. Such a conception not only highlights the qualities of the educated person, but also implies the proper design of the educational process. There are essential minimal conditions for educating minds. These entail modes of instruction that facilitate development of the standards, abilities, and traits of the educated person. For example, when history is substantively taught, it is taught as historical thinking; the major goal is to give students practice in thinking historically (analyzing, evaluating, and reconstructing historical interpretations and problems). As a result, students learn not only how to read historical texts with insight and understanding, but also how to gather important facts and write well-developed historical essays of their own. Through this mode of instruction, students come to see the significance of historical thinking, both in their own lives and in the life of culture and society. History becomes – in such a transformed mind – not random facts from the past, but a way to reason about the past in order to make intelligent decisions in the present, as well as reasonable plans for the future.

When students are taught using a substantive concept of education as the guide to the design of instruction, they can learn to initiate, analyze, and evaluate their own thinking and the thinking of others (within all the content areas they study). Doing so, they come to act more reasonably and effectively in every

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part of life. They are able to do this because they have acquired intellectual tools and intellectual standards essential to sound reasoning, as well as to personal and professional judgment. Self-assessment becomes an integral part of their lives. They are able to master content in diverse disciplines. They become proficient readers, writers, speakers, and listeners. They become

reasonable and fairminded persons capable of empathizing with views with which they disagree. They are able to use their reasoning skills to take command of their own emotional lives, and to transform their desires and motivations. They come to embody, increasingly over time, the virtues of the fairminded critical thinker.

All of our work and thus all of our conference sessions are based on this substantive conception of critical thinking. We are committed to a concept that interfaces optimally within and among the disciplines, that integrates critical with creative thinking, and that applies directly to the needs of everyday and professional life.

All conference sessions are designed to converge on basic critical thinking principles, and to enrich a core concept of critical thinking with practical teaching and learning strategies.



“We believe in the power of ideas and reasoned thought. We believe that what is ideal and what is imperative are converging. Well-grounded critical thinking has been a human ideal since Socrates. It is now fast becoming a global economic, educational, and moral imperative. Those of vision recognize this imperative and its implications...”

– Richard Paul, letter to educators, in *Education Vision*, 1994

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Our Contributors

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Dedication

This year's conference and proceedings are dedicated to the good people at this conference and across the world who persistently work to cultivate fairminded critical thinking and who exemplify intellectual humility, intellectual empathy, intellectual integrity, and confidence in reasoning in their daily lives. The critical thinking movement, such that it is, utterly depends upon the energy and the power of these deep thinkers.



Ralph Nader and Linda Elder at the 34th International Conference

The quote on the front cover can be found in Richard Paul's anthology: *Critical Thinking: What Every Person Needs To Survive in a Rapidly Changing World*, Tomales, CA: FCT Press. (2012)

General Conference Information

Important Announcements

1. Please turn all cell phone ringers off during all sessions.
2. Please review all of the information included in this program and in your packet. You will find an area map, information about local restaurants, information about the sessions and room assignments, and general information about the Foundation for Critical Thinking.
3. Please bring all of your Thinker's Guides to every conference session. This enables the presenter (and you) to use any or all of them throughout the conference.
4. Place your name or initials on each of your Thinker's Guides, in case you get separated from your guides.
5. We also suggest that you place your name on your bag – you may use the markers we have in the reception area.
6. Please wear your nametag at all times when you are in the conference sessions, so that we know you are a paid registrant, and for group activities.
7. Please attend only the sessions you have registered for. All conference sessions are designed for deep learning. Activities within each session build upon one another. If you think the session you are registered for will not meet your needs, speak with one of the presenters to see if room is available for a change.
8. Please feel free to ask for assistance or information during breaks and lunch at the information desk.
9. Coffee and tea will be provided during the breaks, and water will be provided all day in the Sonoma Valley room on the second floor of the Student Center. If you would like anything in addition to this, including snacks, feel free to bring those as you wish.
10. We will have several of our materials and publications available for sale at the reception area. Our bookstore is open during breaks and lunch, and at the end of each day's sessions. Our bookstore will close at 1:00 p.m. on Friday.
11. **DO NOT CHANGE SLEEPING ROOMS!** Your room key is specifically for the room you have been assigned as well as the entrance to the suite. If you have any issues with your assigned lodging, please see Rachael Collins.

11. **Meal information (please read):** The cafeteria is called “The Kitchens” and is “all you care to eat.” It is located on the first floor of the Student Center. Since the campus has multiple events at the same time, each event is assigned a line time for its attendees’ meals. Our line times are as follows: 7:45 a.m.-8:00 a.m. for breakfast, 12:00 p.m.-12:15 p.m. for lunch and 6:15 p.m.-6:30 p.m. for dinner. Please arrive during these assigned times to ensure there is enough space and that the food is fresh. These are line times, meaning you need to enter the dining hall during the assigned times. Once in, you can take as long as needed to eat. If you arrive outside of the line time, admission is at the discretion of the attendant on duty. The Kitchens is set up like a food court with several stations offering different items to suit a variety of dietary needs and preferences. Vegetarian and vegan options are easy to provide, and we source as many items from local farms and businesses as possible.
12. **Shampoo and conditioner will not be provided.** Please plan to bring these items with you. There are toiletries available to purchase at the campus bookstore, and there is a 7-Eleven within walking distance. (Soap is provided.)



Answers to Frequently Asked Questions:

Can I purchase the PowerPoint presentations?

We have a PowerPoint CD available for purchase during the conference. It includes many, if not most, of the visual images used in focal sessions, as well as many more images. This CD is available for \$20 and contains the following files:

- Introduction to Critical Thinking
- Three Types of Questions
- Fostering the Disciplined Mind
- Elementary Instruction
- Elements of Reasoning
- Intellectual Virtues
- Key Concepts
- Questioning Mind
- Quotes and Statistics
- Role of Administration
- Relationship between Content and Thinking
- Self-Handicapping Behaviors
- Socratic Questioning
- Standards Primary
- Theory of Mind

Please ask at the Bookstore for information.

Why are the sessions being videotaped?

Many of the workshop sessions are videotaped for the following reasons: (1) to permanently document the sessions for the Foundation for Critical Thinking archives, (2) to provide video footage from the sessions for our website, and (3) to provide DVD video clips for educational purposes.

Can I get a list of all conference participants?

We design conference sessions so that participants frequently work with others in pairs and small groups. This enables those interested in establishing personal contacts at the conference to exchange contact information.

How do the concurrent sessions work?

All concurrent sessions will be held on Thursday. Please read the Concurrent Session Program in this program, in advance, to decide which sessions seem most relevant to your work and life. You will not need to pre-register for concurrent sessions.

What is the closing session?

This is a time for all registrants to come together, process what they have learned at the conference, and think about next steps for moving forward. This session will be led by the Fellows of the Foundation for Critical Thinking.

Does the Foundation for Critical Thinking offer on-site professional development programs in critical thinking?

Yes. There is a general professional development proposal included in your registration packet. That information is also available on our website at this link: <http://www.criticalthinking.org/pages/professional-development-in-critical-thinking/433>

To discuss our professional development programs, email collins@criticalthinking.org

How can I establish an official affiliation with the Foundation for Critical Thinking?

We have a new certification program that is available. There is information provided in your registration packet. If you have questions you can visit the information desk in the Sonoma Valley room or email cct@criticalthinking.org.

How can I gain access to a library of articles on critical thinking?

There is a library of articles on our website, which includes numerous articles you can read – www.criticalthinking.org/pages/index-of-articles/1021/



How can I get information on assessment regarding critical thinking?

Information is available on our website regarding tests and assessment. www.criticalthinking.org/pages/critical-thinking-testing-and-assessment/594. Also, you received two Thinker's Guides on assessment during registration – *Critical Thinking Competency Standards*, and *The International Critical Thinking Reading and Writing Test*.



This Persian rug was commissioned by Mohammad B. Bagheri in honor of our founder Richard Paul as a memorial gift to the Foundation for Critical Thinking.

Conference Overview

The conference entails the following four types of sessions and learning opportunities:

1. *Focal Sessions* that are designed to foster deep understanding of core critical thinking concepts and principles. These sessions are led primarily by Fellows and Scholars of the Foundation for Critical Thinking.

2. *Concurrent Sessions and Roundtable Discussions*, which are led by guest faculty, administrators, and others attempting to contextualize critical thinking in instruction and in various domains of life.

3. *Evening Social* – Informal discussions and conviviality with our Fellows, Scholars, and Concurrent Sessions presenters. Join us!

4. *Film and Video Continuous Loop*, highlighting the thinking of Richard Paul. Video includes classic footage of Richard Paul exploring the importance of critical thinking to education. Watch videos in our bookstore before, between, and after sessions. Tuesday - Thursday.



Conference at a Glance

Monday, July 31

Opening Ceremony

(8:45 a.m. - 10:00 a.m.)

Welcome and Keynote Address
Linda Elder and Gerald Nosich,
 Senior Fellows

Ballroom D

Day One Focal Sessions:

10:30 a.m. - 4:00 p.m.

Conference registrants have chosen one of the following sessions:

- Asking Essential Questions–
[Gerald Nosich](#)
Ballroom C
- Critical Thinking as the Core of the Curriculum– [Linda Elder](#)
Ballroom B
- *Advanced Session:*
 The Teachings of Richard Paul–
[Carmen Polka](#)
Alexander Valley Room

View Richard Paul video (looping) in our bookstore before sessions begin each day, during breaks and lunch, and after the afternoon sessions. (Tuesday-Thursday)

Tuesday, August 1

Day Two Morning Focal Sessions:

9:00 a.m. - 12:00 p.m.

Conference registrants have chosen one of the following sessions:

- Fostering Critical Thinking in the University Classroom on a Typical Day– [Gerald Nosich](#)
Ballroom C
- Critical Thinking as Essential to the Acquisition of Knowledge in K-12 Education– [Linda Elder](#)
Ballroom B
- *Advanced Session:*
 Strategic Thinking within Business and Government Using the Tools of Critical Thinking–
[Brian Barnes](#)
Alexander Valley Room



Conference at a Glance

Tuesday, August 1 cont.

Day Two Afternoon Focal Sessions: 1:30 p.m. - 4:00 p.m.

Conference registrants have chosen one of the following sessions:

- Intellectual Virtues as Essential to the Cultivated and Educated Mind– [Gerald Nosich](#)
Ballroom C
- Emotional Intelligence: A Powerful Conception– [Linda Elder](#)
Ballroom B
- *Advanced Session:*
The Teachings of Epictetus and Marcus Aurelius, and How They Could Advance Critical Societies– [Brian Barnes](#)
Alexander Valley Room



Wednesday, August 2

Concurrent Sessions

To choose concurrent sessions, see the concurrent session program, page 33; choose for each time slot on Wednesday and Thursday.

Concurrent Sessions I: 9:00 a.m. - 10:00 a.m.

- Expanding Institutional Discourse about Critical Thinking–
[Patricia E. Ackerman](#)
Ballroom C
- Guiding Students toward More Critical and Questioning Understanding of the Social World– [Mel Manson](#)
Ballroom D
- Building Foundations to Culturally Competent Critical Thinking Skills in Immigrant Professionals–
[Nava Israel](#)
Alexander Valley Room
- A TRUE Initiative: Equipping the Undergraduate and Graduate Students with Research and Critical Thinking Skills Needed in the 21st Century– [Manish Madan](#),
[Robin Hernandez-Mekonnen](#), and
[Elma Kaiser](#)
Ballroom B

Conference at a Glance

Wednesday, August 2 cont.

Professional Development Discussions with Our Fellows and Scholars

10:30 a.m. – 12:00 p.m.

Learn more about our about our customized onsite and online professional development programs!

- Higher Education– [Gerald Nosich](#)
Ballroom C
- FCT Certification, business affiliations, and business professional development– [Linda Elder and Brian Barnes](#)
Alexander Valley Room
- K-12 Education– [Carmen Polka](#)
Ballroom B

Day Three Focal Sessions:

1:30 p.m. - 4:15 p.m.

Conference registrants have chosen one of the following sessions:

- Employing Critical Thinking Throughout Professional Life– [Linda Elder](#)
Ballroom B
- How to Improve Student Learning Through Basic Critical Thinking Strategies– [Gerald Nosich](#)
Ballroom C

Thursday, August 3

Concurrent Sessions II:

8:30 a.m. - 9:30 a.m.

To choose concurrent sessions, see the concurrent session program, page 33; choose for each time slot on Wednesday and Thursday.

- Improving Student Critical Thinking through Direct Instruction in Rhetorical Analysis– [Lauren McGuire](#)
Ballroom C
- Critical Thinking and Communication: Teaching Undergraduates the Power of Critical Thinking– [Michelle R. Bahr](#)
Ballroom D
- Becoming Still, Growing Wise– [Gladys Mangiduyos](#)
Alexander Valley Room
- Cultivating Critical Thinking Throughout Organizations– [Richard King](#)
Bennett Valley Room

View Richard Paul video (looping) in our bookstore before sessions begin each day, during breaks and lunch, and after the afternoon sessions. (Tuesday-Thursday)

Conference at a Glance

Concurrent Sessions III:

9:40 a.m. - 10:40 a.m.

- Why Explicit Discussion of Intellectual Standards is Essential in the Classroom from a Student's Perspective– [Rachael Collins](#)
Ballroom C
- Transformation of a Program Curriculum One Faculty and One Student at a Time– [Jeremy Dicus](#), [Brock Jensen](#), [Jeffrey Lynn](#), and [Patricia Pierce](#)
Ballroom D
- Socratic Seminar: The Missing Element in K-12 Critical Thinking Pedagogy– [Melissa Edwards](#)
Alexander Valley Room
- Barriers to Critical Thinking in First-Year Medical and Dental Students, and How to Overcome Them– [Jacqueline Gardner](#) and [Carol Freund-Taylor](#)
Bennett Valley Room

Concurrent Sessions IV:

10:55 a.m. - 11:55 a.m.

- Assessing Critical Thinking: What to Measure and How to Fairly Measure It– [Troy Voelker](#) and [Soma Datta](#)
Ballroom C
- Flipping the Classroom Using Critical Thinking– [Joseph Halter](#)
Ballroom D
- Metacognition through Mindfulness: Thinking about Our Thinking through the Use of Mindfulness and Metacognition– [Susan Crooks](#) and [Walter Crooks](#)
Alexander Valley Room
- Critical Thinking in the Discipline of Leadership Studies– [Adrienne Castellon](#)
Bennett Valley Room



Conference at a Glance

Thursday, August 3 cont.

Thursday Roundtable Discussions

1:20 p.m. - 2:35 p.m.

Ballroom D

(see page 47 for details)

Day Four Focal Sessions:

2:50 p.m. - 4:45 p.m.

Conference registrants have chosen one of the following sessions:

- Advancing Critical Thinking as a Bona Fide Field of Study with Established First Principles–
[Linda Elder](#)
Ballroom B
- For Administrators: Promoting and Cultivating Critical Thinking across the Organization– [Carmen Polka](#)
Alexander Valley Room
- Assessing Critical Thinking in Teaching and Learning–
[Gerald Nosich](#)
Ballroom C

Thursday Evening Social

*Join us for informal discussions
and conviviality*

7:00 p.m. - 9:00 p.m.

Lobo's

Friday, August 4

Day Five Focal Sessions:

9:00 a.m. - 11:00 a.m.

Conference registrants have chosen one of the following sessions:

- Sociocentricity as a Pervasive Pathology in Teaching, Learning, and Throughout Human Societies–
[Linda Elder](#)
Alexander Valley Room
- Teaching Students to Take Command of What They Read–
[Carmen Polka](#)
Ballroom B
- Teaching Students the Role of Powerful Concepts in Learning Any Subject or Discipline–
[Gerald Nosich](#)
Ballroom C

Closing Session

Where Do We Go from Here?

11:30 a.m. - 12:15 p.m.

Ballroom D

Led by the Fellows of the Foundation for Critical Thinking. All conference participants are invited.

Daily Schedule

Monday, July 31

7:30 a.m. - 8:40 a.m.	Registration & Check-In
8:45 a.m. - 10:00 a.m.	Opening Ceremony
10:00 a.m. - 10:30 a.m.	Break
10:30 a.m. - 12:00 p.m.	Day One Focal Sessions Begin
12:00 p.m. - 1:30 p.m.	Lunch
1:30 p.m. - 2:45 p.m.	Focal Sessions Continue
2:45 p.m. - 3:00 p.m.	Break
3:00 p.m. - 4:00 p.m.	Focal Sessions Continue

View Richard Paul video (looping) in our bookstore before sessions begin each day, during breaks and lunch, and after the afternoon sessions. (Tuesday-Thursday)



Daily Schedule cont.

Tuesday, August 1

9:00 a.m. - 10:00 a.m.	Day Two Morning Focal Sessions Begin
10:00 a.m. - 10:30 a.m.	Break
10:30 a.m. - 12:00 p.m.	Focal Sessions Continue
12:00 p.m. - 1:30 p.m.	Lunch
1:30 p.m. - 2:45 p.m.	Day Two Afternoon Focal Sessions Begin
2:45 p.m. - 3:00 p.m.	Break
3:00 p.m. - 4:00 p.m.	Focal Sessions Continue

Wednesday, August 2

To choose concurrent sessions, see the concurrent session program on page 33.

9:00 a.m. - 10:00 a.m.	Concurrent Sessions I
10:00 a.m. - 10:30 a.m.	Break
10:30 a.m. - 12:00 p.m.	Professional Development Discussions with Our Fellows and Scholars
12:00 p.m. - 1:30 p.m.	Lunch
1:30 p.m. - 2:30 p.m.	Day Three Focal Sessions Begin
2:30 p.m. - 2:45 p.m.	Break
2:45 p.m. - 4:15 p.m.	Focal Sessions Continue

View Richard Paul video (looping) in our bookstore before sessions begin each day, during breaks and lunch, and after the afternoon sessions. (Tuesday-Thursday)

Daily Schedule cont.

Thursday, August 3

Concurrent sessions. To choose concurrent sessions, see the concurrent session program on page 33.

8:30 a.m. - 9:30 a.m.	Concurrent Sessions II
9:40 a.m. - 10:40 a.m.	Concurrent Sessions III
10:40 a.m. - 10:55 a.m.	Break
10:55 a.m. - 11:55 a.m.	Concurrent Sessions IV
11:55 a.m. - 1:20 p.m.	Lunch
1:20 p.m. - 2:35 p.m.	Roundtable Discussions
2:35 p.m. - 2:50 p.m.	Break
2:50 p.m. - 4:45 p.m.	Day Four Focal Sessions begin
7:00 p.m. - 9:00 p.m.	Evening Social for All Delegates

Friday, August 4

9:00 a.m. - 11:00 a.m.	Day Five Focal Sessions
11:00 a.m. - 11:30 a.m.	Break
11:30 a.m. - 12:15 p.m.	Closing Session



Focal Session Presenters

Senior Fellows of the Foundation for Critical Thinking



Dr. Linda Elder is an educational psychologist and a leading authority on critical thinking. She is President of the Foundation for Critical Thinking and Executive Director of the Center for Critical Thinking. Dr. Elder has taught both psychology and critical thinking at the college level, and has given presentations to more than 50,000 educators at all levels. She has coauthored four books and 24 Thinker's Guides on critical thinking. Dr. Elder has developed an original stage theory of critical thinking development. Concerned with understanding and illuminating the relationship between thinking and affect, and the barriers to critical thinking, Dr. Elder has placed these issues at the center of her thinking and her work.



Dr. Gerald Nosich is a prominent authority on critical thinking, and has given more than 250 national and international workshops on the subject. He has worked with the U.S. Department of Education on a project for the National Assessment of Higher Order Thinking skills, served as the Assistant Director of the Center for Critical Thinking, and has been featured as a Noted Scholar at the University of British Columbia. He is Professor Emeritus at both SUNY Buffalo State and the University of New Orleans. He is the author of two books including *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum*.

Elder and Nosich are first-generation Paulian Scholars; each experienced the rare opportunity of studying directly with Richard Paul for more than 20 years. The works of Paul, Elder, and Nosich are translated into many languages worldwide, including Chinese, Japanese, Turkish, Korean, French, German, Arabic, Spanish, Thai, Greek, and Polish.

Guest Focal Session Presenters

Scholars of the Foundation for Critical Thinking



Dr. Brian Barnes has taught critical thinking courses for nine years at the university level. He has earned grants from Hanover College, the James Randi Education Foundation, and the University of Louisville focused on developing critical thinking in everyday life. He holds a Masters degree in Philosophy and a Ph.D. in Culture, Criticism, and Contemporary Thought from the University of Louisville, which fosters the Paulian

Approach to critical thinking across the curriculum. Dr. Barnes is a Visiting Scholar of the Foundation for Critical Thinking.



Carmen Polka has worked diligently to infuse critical thinking into her classroom instruction, curriculum, and assessment for more than fifteen years. Focused on transforming education through implementation of quality instructional practices, Ms. Polka instigated and co-authored the writing of the Colorado Academic State Standards targeting research and reasoning based on the Paul-Elder framework. As a leader and critical

thinking expert in her district, she led professional development and coached K-12 teachers to effectively utilize the Paulian theory. Ms. Polka is a Doctoral candidate in the Educational Leadership and Policy Studies program at the University of Northern Colorado. In addition, she is a licensed principal, elementary teacher, and K-12 Special Education teacher.



Focal Sessions

All conference delegates and attendees have registered for their choices from the following sessions. See your confirmation sheet (in your packet) if you are unclear on which focal sessions you have selected. Please attend the sessions you chose, as room assignments have been determined based on enrollment totals for each session. If any problems arise, visit the registration desk.

Monday Focal Session Descriptions

Day One: Monday (10:30 a.m. - 4:00 p.m.)

Asking Essential Questions... Gerald Nosich

Ballroom C

It is not possible to be a good thinker and a poor questioner. Questions define tasks, express problems, and delineate issues. They drive thinking forward. Answers, on the other hand, often bring an end to thought. Only when an answer generates further questions does thought continue as inquiry. A mind with no questions is a mind that is not intellectually alive. No questions (asked) equals no understanding (achieved). Superficial questions lead to superficial understandings, and unclear questions lead to unclear understandings. If your mind is not actively generating questions, you are not engaged in substantive learning.

Students must learn to generate and reason through essential questions in academic disciplines. This process prepares them for reasoning with skill and control through the problems they will face throughout their lives – including in their roles as public citizens. Hence, these questions are raised:

- How can we teach so that our students learn to generate questions which lead to deep learning, and to the cultivation of powerful intellectual skills?
- What role do questions play in the mind of the cultivated public citizen?
- How can we teach so that students learn to generate, and reason within, essential questions in all domains of life?

In this session we will focus on practical strategies for helping students generate essential questions within subjects and disciplines, so they are better able to think through content and reason through the issues and problems in their lives and careers.

Monday Focal Session Descriptions Continued

Critical Thinking as the Core of the Curriculum... Linda Elder

Ballroom B

Bringing critical thinking into instruction entails understanding the concepts and principles within critical thinking and then applying them throughout the curriculum. It means developing powerful strategies that emerge when we begin to understand critical thinking. In this session, we will focus on strategies for engaging the intellect at potentially all levels of instruction. These strategies are powerful and useful, because each is a way to engage students in actively thinking about what they are trying to learn. Each represents a shift of responsibility for learning from teacher to student. Through these strategies, students learn to discipline their thinking as they reason their way through content. They learn the importance of using the principles of critical thinking in reasoning through problems and issues in every subject and discipline.

This session will introduce you to some of the most basic understandings in critical thinking - namely, how to analyze thinking, how to assess it, and how to develop and foster intellectual virtues or dispositions.

Advanced Session: The Teachings of Richard Paul... Carmen Polka

Alexander Valley Room

Richard Paul is widely considered to be a seminal thinker in the emerging field of Critical Thinking Studies. In this session we will consider some of Paul's important contributions to the substantive conception of critical thinking that has been cultivated over the past 40 (or more) years. We will view and discuss video footage of Paul articulating the theory of critical thinking and how to foster it throughout instruction. We will read



and discuss excerpts from Paul's anthology: *Critical Thinking: What Everyone Needs to Survive in a Rapidly Changing World*, a text which laid the groundwork for what has come to be known as the Paulian Approach to Critical Thinking, or the Paul-Elder Framework.

Tuesday Focal Session Descriptions

Day Two: Tuesday Morning (9:00 a.m. - 12:00 p.m.)

Fostering Critical Thinking in the University Classroom on a Typical Day...

Gerald Nosich

Ballroom C

One of the main goals of instruction is to help students internalize the most basic concepts within subjects, and to learn to think through the content and questions in everyday life using those concepts. Critical thinking in biology is biological thinking. Critical thinking in anatomy is anatomical thinking. Critical thinking in literature is thinking the way a knowledgeable, sensitive, reasonable reader thinks about literature. A discipline is more than a body of information. It is a distinctive way (or set of ways) of looking at the world and thinking through a set of questions about it. In this session, participants will work through the fundamental, powerful concepts in their respective disciplines or subjects and use them to structure a typical class day of critical thinking.

Critical Thinking as Essential to the Acquisition of Knowledge in K-12 Education... Linda Elder

Ballroom B

We understand that students today have difficulty distinguishing between real and fake news. In some ways, critical thinking seems to be moving further away from educational contexts, given the many complex political realities facing K-12 teachers. But it is essential to recognize that to study well – to truly learn any subject – demands that we learn how to think with discipline inside of that subject. To become a skilled learner is to become a self-directed, self-disciplined, self-monitored, self-corrective thinker who understands and gives assent to rigorous standards of thought and mindful command of their use.

Bringing critical thinking into the K-12 classroom entails understanding the concepts and principles embedded in critical thinking, and then applying those concepts throughout the curriculum. It means developing powerful strategies that emerge when we begin to understand critical thinking. In this session, we will focus on strategies for engaging the intellect at the K-12 level. These strategies are powerful and useful, because each is a way to get students actively engaged in thinking about, and thinking through, what they are learning. Each represents a shift of responsibility for learning from teacher to student.

Tuesday Focal Session Descriptions Continued

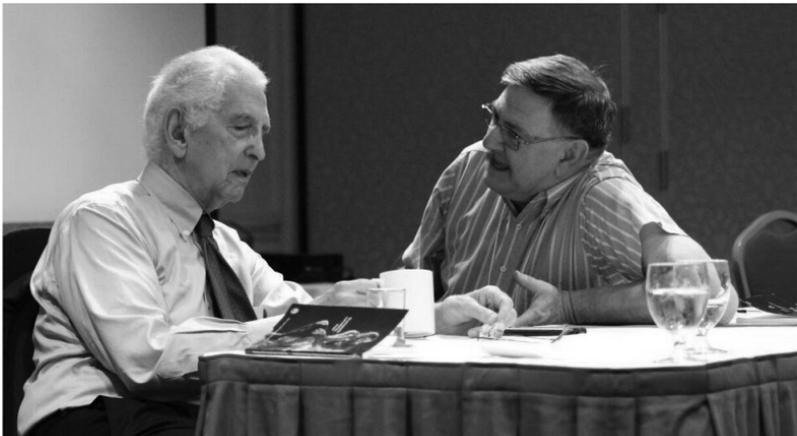
Strategic Thinking within Business and Government Using the Tools of Critical Thinking... Brian Barnes

Alexander Valley Room

Strategic thinking is essential to reasoning through issues and problems in business and government. The tools embedded in a robust conception of critical thinking are essential to strategic thinking at all levels, and for all employees and personnel, within any organization.

This session will help participants:

- Begin to internalize the foundational concepts and principles implicit in a substantive conception of critical thinking.
- Better use critical thinking as a set of tools for thinking deeply through the questions, issues, and challenges they face in their work.
- Learn the art of intelligent decision-making using critical thinking concepts.
- Internalize the skills, abilities, and traits of reasonable, logical, critical persons.



Tuesday Focal Session Descriptions Continued

Day Two: Tuesday Afternoon (1:30 p.m. - 4:00 p.m.)

Intellectual Virtues as Essential to the Cultivated and Educated Mind...

Gerald Nosich

Ballroom C

Critical thinking is not just a set of intellectual skills. It is a way of orienting oneself in the world, and a way of approaching problems that differs significantly from that which is typical in human life. People may have critical thinking skills and abilities, yet still be unable to enter viewpoints with which they disagree. They may have critical thinking abilities, yet still be unable to analyze the beliefs that guide their behavior. They may have critical thinking abilities, yet be unable to distinguish between what they know and what they don't, to persevere through difficult problems and issues, to think fairly, and to stand alone against the crowd.

This session focuses on designing instruction that transforms the mind - instruction that fosters the development of fairness, intellectual humility, intellectual perseverance, intellectual courage, intellectual empathy, intellectual autonomy, intellectual integrity, and confidence in reason.

Emotional Intelligence: A Powerful Conception... Linda Elder

Ballroom B

To develop emotional intelligence is to achieve command of the workings of our minds, for it is our minds that generate our thoughts, feelings, and desires. It is our students' minds that control not only how they study and learn, but also how they make decisions and conduct their lives. To develop as emotionally intelligent persons, we need to understand the relationship between thoughts and emotions. To be in command of one's emotional life is to have control over the faculties of mind that determine it: thoughts, emotions, and desires working, as they do, in concert.

Student emotions play a significant role in how, and to what extent, students learn in a given setting. The emotions they bring to the classroom (connected with the thinking that gives rise to these emotions) largely determine the level at which they can learn. When they bring learned indifference, irrational fears, acquired hostility, and inflexible ideas into the classroom, their learning is limited to the superficial. It is important that students recognize the universal challenges we all face as largely egocentric and sociocentric persons.

This session provides a structure for helping students (and all people) improve the quality of their emotional experiences - in all parts of life - by commanding

Tuesday Focal Session Descriptions Continued

the thoughts and feelings that determine that quality. Our approach is based on a conceptual, rather than scientific, orientation to human thought and emotion. The theory to be explored will focus on the relationship between cognition and affect, and the importance of commanding one's egocentric tendencies while working to cultivate emotional intelligence within oneself.

Advanced Session: The Teachings of Epictetus and Marcus Aurelius, and How They Could Advance Critical Societies... Brian Barnes

Alexander Valley Room

Now there are two ways in which a man may be this hardened: one when his reasoning faculty is petrified, and the other when his moral sense is petrified, and he sets himself deliberately not to assent to manifest arguments, and not to abandon what conflicts with them. Now most of us fear the deadening of the body and would take all possible means to avoid such a calamity; yet we take no heed of the deadening of the mind and the spirit. When the mind itself is in such a state that a man can follow nothing and understand nothing, we do indeed think that he is a bad condition; yet, if a man's sense of shame and self-respect is deadened, we even go so far as to call him a "strong man."

from 'Arrian's Discourses of Epictetus' (The
Stoic and Epicurean Philosophers: The
Complete Extant Writing of Epicurus, Epictetus,
Lucretius and Marcus Aurelius, p. 232.)

One way of deepening our understanding of critical thinking and its role in history is to interrelate explicit critical thinking concepts and principals with transformative ideas developed by deep thinkers throughout history. At this year's conference, returning registrants (and those who have attended our professional development programs on your campus) are invited to participate in an advanced session focused on Epictetus and Marcus Aurelius, two deeply insightful thinkers in the history of ideas and of critical thinking. We will explore ideas by both men integral to a fairminded conception of critical thinking. For a brief study of both thinkers, we will explore fragments from their original works.

In this session we presuppose that you have an initial or advanced understanding of the elements of reasoning, intellectual standards, and intellectual virtues. These intellectual tools will be used to open up and begin internalizing the thinking of Epictetus and Marcus Aurelius.

Wednesday Focal Session Descriptions

Day Three: Wednesday Afternoon (1:30 p.m. - 4:15 p.m.)

Employing Critical Thinking Throughout Professional Life... Linda Elder

Ballroom B

You are what you think. Whatever you do, whatever you feel, whatever you want - all are determined by the quality of your thinking. If your thinking is unrealistic, your thinking will lead to many disappointments. If your thinking is overly pessimistic, it will squeeze what enjoyment can be found in life and keep you from recognizing what should be properly celebrated.

Since few people realize the powerful role that thinking plays in their lives, few gain significant command of it. Therefore, most people are in many ways “victims” of their own thinking - harmed rather than helped by it. Most people are their own worst enemy. Their thinking is a continual source of problems, preventing them from recognizing opportunities, keeping them from exerting energy where it will do the most good, poisoning their relationships, and leading them down blind alleys.

Though it may not be easy, if you take the ideas in critical thinking seriously, you can discover the power and role of thinking in your life and work. Like all of us, you are capable of achieving more significant professional goals. You can become a better problem solver. You can use power more wisely. You can become less subject to manipulation. You can take charge of what you do in your professional and personal life, how you relate to others, and even what emotions you feel. You can live a fuller, a more happy, more secure life. The choice is yours.

In this session, we introduce the basic ideas in a rich conception of critical thinking and focus on their implications for a more satisfying and rich professional life.



Wednesday Focal Session Descriptions Continued

How to Improve Student Learning Through Basic Critical Thinking Strategies...

Gerald Nosich

Ballroom C

Bringing critical thinking into instruction entails understanding the concepts and principles within critical thinking, and then applying those concepts throughout the curriculum. It means developing powerful strategies that emerge when we begin to understand critical thinking.

In this session, we will focus on strategies for engaging the intellect at potentially all levels of instruction. These strategies are powerful and useful, because each is a way to get students actively engaged in thinking about what they are trying to learn. Each represents a shift of responsibility for learning from teacher to student, and each suggests ways of getting your students to do the hard work of learning.



Thursday Focal Session Descriptions

Day Four: Thursday Afternoon (2:50 p.m. - 4:45 p.m.)

Advancing Critical Thinking as a Bona Fide Field of Study with Established First Principles... Linda Elder

Ballroom B

It is essential for a field of critical thinking studies to fully emerge if we are to properly advance a robust conception of critical thinking – one that can be actively employed across cultures, persons, subjects, disciplines, and professions. A valid field of critical thinking studies rests on what may be termed logical first principles in critical thinking. Moreover, the development of such a field faces substantial and pervasive barriers. Participants in this session will explore both the first principles and the barriers. They will also address the question of what they see as their role in advancing a substantive conception of critical thinking within their circle of influence.



Thursday Focal Session Descriptions Continued

For Administrators: Promoting and Cultivating Critical Thinking across the Organization... Carmen Polka

Alexander Valley Room

Critical thinking, deeply understood, provides a rich set of concepts that enables us to think our way through any subject or discipline, and any problem or issue. With a substantive concept of critical thinking clearly in mind, we begin to see the pressing need for a staff-development program that fosters critical thinking within and across the curriculum. As we come to understand a substantive concept of critical thinking, we are able to follow-out its implications in designing a professional development program. By means of it, we begin to see important implications for every part of the institution – redesigning policies, providing administrative support for critical thinking, rethinking the mission, coordinating and providing faculty workshops in critical thinking, redefining faculty as learners as well as teachers, and assessing students, faculty, and the institution as a whole in terms of critical thinking abilities and traits. We realize that robust critical thinking should be the guiding force for all of our educational efforts.

This session presents a professional development model that can provide the vehicle for deep change across the curriculum, throughout the institution.

Assessing Critical Thinking in Teaching and Learning... Gerald Nosich

Ballroom C

The purpose of assessment in instruction is improvement. The purpose of assessing instruction for critical thinking is to improve the teaching of discipline-based thinking (historical, biological, sociological, mathematical, and so on). It is to improve students' abilities to think their way through content by using disciplined skill in reasoning. The more specific we can be about what we want students to learn about critical thinking, the better can we devise instruction to serve that purpose. Unfortunately, standardized tests now widely used in critical thinking are not designed to impact instruction. There is a significant disconnect between what standardized tests assess and what we want students to learn.

This session will focus on methods for integrating assessment and critical thinking across the curriculum.

Friday Focal Session Descriptions

Day Five: Friday Morning (9:00 a.m. - 11:00 a.m.)

Sociocentricity as a Pervasive Pathology in Teaching, Learning, and Throughout Human Societies...Linda Elder

Alexander Valley Room

Many of the deep-seated habits that humans acquire come from the process of being socialized or enculturated. Almost everything we think or do, we have been taught to think or do by the social groups that have shaped us. Those who want to free themselves from indoctrination, to become intellectually emancipated, must understand this problem as a significant barrier to development and begin seeing its influence on their daily thinking.

Living a human life entails membership in a variety of human groups. These typically include groups such as nations, cultures, professions, religions, families, and peer groups. We find ourselves participating in groups before we are even aware of ourselves as living beings, and in virtually every setting wherein we function as persons. What is more, every group to which we belong has some social definition of itself and some oft-unspoken “rules” that guide the behavior of its members. Each group to which we belong imposes some level of conformity on us as a condition of acceptance. This including a set of beliefs, behaviors, and taboos.

For most people, blind conformity to group restrictions is automatic and unreflective. Most individuals effortlessly conform without recognizing their conformity. They internalize group norms and beliefs, take on the group’s identity, and act as they are expected to act, all without any sense that what they are doing might reasonably be questioned. Most people function in social groups as unreflective participants in a range of beliefs, attitudes, and behaviors analogous, in the structures to which they conform, to those of urban street gangs.

This conformity of thought, emotion, and action is not restricted to the masses, the lowly, or the poor. It is characteristic of people in general, independent of their role in society, independent of status and prestige, and independent of years of schooling. It is, in all likelihood, as true of college professors and presidents as students and custodians, as true of senators and chief executives as it is of construction and assembly-line workers. Conformity of thought and behavior is the rule in humans, independence the rare exception.

This session will focus, then, on the problem of sociocentric thinking in human life and its implications for living rationally, as well as for teaching and learning.

Friday Focal Session Descriptions Continued

Teaching Students to Take Command of What They Read... Carmen Polka

Ballroom B

Educated persons are skilled at, and routinely engage in, close reading and substantive writing. When reading, they seek to learn from texts. They generate questions as they read, and they seek answers to those questions by reading widely and skillfully. In short, they seek to become better educated through reading. They do this through the process of intellectually interacting with the texts they read, while they are reading. They come to understand what they read by paraphrasing, elaborating, exemplifying, and illustrating it. They make connections as they read. They evaluate as they read. They bring important ideas into their thinking as they read.

Quite remarkably, many of our students have never read a text closely, nor written in a substantive way. Instead, they have developed the habit of skirting by with superficial and impressionistic reading. This session will therefore explore basic, foundational processes for developing student skills in close reading. The aim is for these processes to become internalized and used throughout life as powerful tools for continual development.

Teaching Students the Role of Powerful Concepts in Learning Any Subject or Discipline... Gerald Nosich

Ballroom C

Concepts are ideas we use in thinking. They enable us to group things from our experience in different categories, classes, or divisions. They are the bases for the labels we give things in our minds. They represent the mental map (and meanings) we construct of the world, the map that tells us the way the world is. Through our concepts we define situations, events, relationships, and all other objects of our experience. All our decisions depend on how we conceptualize things. All subjects or disciplines are defined by their foundational concepts.

In this session, participants will focus on the most fundamental concepts in their courses. They will explore how using those concepts can help students to think through the most central questions in a course, and to process the background logic that so often derails their learning.

Professional Development Discussions with Our Fellows and Scholars

Wednesday, August 2
(10:30 a.m. – 12:00 p.m.)

To learn more about our professional development programs, join any of the following groups for discussions during the session. These will be informal discussions, and we invite your comments and questions.

Higher education – with Dr. Gerald Nosich
Ballroom C

Certification in our approach, business affiliations, and business professional development – with Dr. Linda Elder and Dr. Brian Barnes
Alexander Valley Room

K-12 education – Ms. Carmen Polka
Ballroom B



Concurrent Sessions Program

Wednesday, August 2 and Thursday, August 3

The Concurrent Sessions are presented by attendees who are attempting to foster critical thinking in teaching, learning, or any other area of life. Choose one Concurrent Session to attend for each time slot.

Schedule Overview:

Wednesday

9:00 a.m. – 10:00 a.m.

Concurrent Sessions I

Thursday

8:30 a.m. – 9:30 a.m.

Concurrent Sessions II

9:40 a.m. – 10:40 a.m.

Concurrent Sessions III

10:55 a.m. – 11:55 a.m.

Concurrent Sessions IV

Concurrent Sessions I

(9:00 a.m. – 10:00 a.m. Wednesday)

Expanding Institutional Discourse about Critical Thinking

Patricia E. Ackerman

Professor of Language Arts Curriculum & Instruction and 2017 Coffman Chair,
University Distinguished Teaching Scholar

Kansas State University

Ballroom C

Definitions of the term *critical thinking* vary between pedagogical models. Paul & Elder, Brookfield, Halpern, Facione, Wolcott, Perry, and Bloom employ targeted language when defining and framing what it means to *think critically*. Regardless of definition, critical thinking appears as a standard Student Learning Outcome across academic disciplines. Kansas State University adopted its current set of Undergraduate Student Learning Outcomes in 2004, including critical thinking. The KSU Office of Assessment monitors program and classroom curricula designed to teach and assess critical thinking across ten different colleges in the University system. Outside of this assessment process, academic discourse about what it means for students to *think critically* can be vague and intermittent. The teaching of critical thinking appears to take place implicitly, but is seldom discussed explicitly.

Conference Concurrent Sessions Continued

As 2017 Coffman Chair for University Distinguished Scholars, my proposal to shine a collaborative spotlight on how critical thinking is defined, taught, and assessed at KSU was embraced by the Provost's Office. My collaboration with KSU's Teaching & Learning Center, the KSU Faculty Exchange for Teaching Excellence, and the Office of Assessment has resulted in 2017 being designated as the Year of Critical Thinking at Kansas State University. Throughout this year, events such as the Spring Teaching Workshop and Institute of Assessment have adopted critical thinking as a common focus. The year launched in January with a workshop conducted by Dr. Gerald Nosich, through the lens of Paul & Elder's critical thinking model, titled *Teaching Critical Thinking within the Logic of One's Own Discipline*.

During this one-hour engaged lecture, I will discuss the need for interactive discourse about critical thinking across academic disciplines and programs. I will share how this discourse-based process has taken on a life of its own at Kansas State University. And she will invite participants to identify concerns, collaborations, and opportunities to nurture productive dialogue about critical thinking within their own institutions.

Guiding Students toward More Critical and Questioning Understanding of the Social World

Mel Manson

Professor of Sociology and Professor of Psychology
Endicott College

Ballroom D

As teachers we are responsible for designing courses and assignments to engage our students in a pedagogy that guides them to deep thinking about, and clear questioning of, their social world. The ideal is for students to learn and internalize strategies that will help them become critical and fairminded thinkers. Continuous application of the intellectual standards to the elements of thought in all course assignments allows the student to develop this questioning mind – a mind not manipulated by biased or uncritical thinking.

In this session, practical examples of such assignments from the discipline of sociology will be introduced. Participants will be asked to evaluate how effective these assignment examples might be in their own classroom settings, and how they might incorporate these – or other suggestions from fellow participants – into new assignments and strategies to help guide their students in the ways of critical and fairminded thinking.

Conference Concurrent Sessions Continued

Building Foundations to Culturally-Competent Critical Thinking Skills in Immigrant Professionals

Nava Israel

Founder

Fusion Global Education

Founder and Co-Chair

The Bridging Coalition

Alexander Valley Room

In the last two decades, the Canadian government has invested billions of dollars in the integration of immigrants into Canadian society. Part of this funding went towards bridge-training programs, uniquely designed to expedite the effective transition of internationally educated professionals into meaningful employment in the Canadian labor market. The curriculum of these programs is highly responsive to employer-driven research in the field, which indicates critical thinking and reasoning skills as the main barriers for employment and retention of immigrant professionals. In this session, we will explore the extensive experience gained through bridge-training programs on (1) the cultural roots for immigrants' "lapses" in critical thinking, and (2) the most effective strategies used for "fast-tracking" immigrant professionals into culturally-competent critical thinking and reasoning. Beyond working with immigrants, these strategies are fully transferrable to North American populations living within micro-cultures where basic critical thinking skills are underdeveloped and/or suppressed.



Conference Concurrent Sessions Continued

A TRUE Initiative: Equipping the Undergraduate and Graduate Students with Research and Critical Thinking Skills Needed in the 21st Century

Manish Madan

Assistant Professor of Criminal Justice
Stockton University, School of Social and Behavioral Sciences

Robin Hernandez-Mekonnen

Assistant Professor of Social Work
Stockton University, School of Social and Behavioral Sciences

Elma Kaiser

Assistant Professor of Social Work
Stockton University, School of Social and Behavioral Sciences

Coauthors:

Jessie Finch, Assistant Professor of Sociology, Stockton University

Kaite Yang, Assistant Professor of Psychology, Stockton University

Ballroom B

It has often been noted that students at both undergraduate and graduate levels find research-methods courses as some of the most dreaded and challenging. In 2016, we conceptualized a TRUE (Teaching Research in the University Environment) teaching circle, aimed at bringing together Stockton faculty who teach research courses. The purpose was to recognize the obstacles commonly faced in teaching research, and also those that students face in such courses.

In this study, using content analysis of nearly two-dozen syllabi and focus-group interviews with research faculty, we examine course content for commonalities across disciplines, identify pedagogical strategies employed by the interdisciplinary faculty, and explore the utility of integrating critical thinking skills while teaching courses grounded in research and evaluation. This presentation will share innovative methods, adopted by faculty institution-wide, in highlighting the importance of research in social sciences and using elements of critical thinking to help students become better consumers of research.



Conference Concurrent Sessions Continued

Concurrent Sessions II

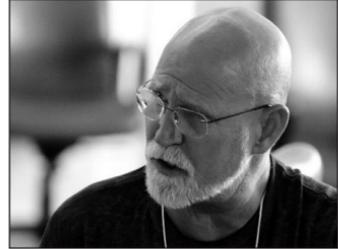
(8:30 a.m. – 9:30 a.m. Thursday)

Improving Student Critical Thinking through Direct Instruction in Rhetorical Analysis

Lauren McGuire

English Professor

Victor Valley College



Ballroom C

Cultivating critical thinking, intellectual growth, and lifelong learning opportunities that provide students with the knowledge and skills necessary for success in life is a fundamental goal of all educational institutions. In an effort to encourage students' higher-order thinking skills and abilities, educators are beginning to include critical thinking curriculum into a variety of academic disciplines. Instructional strategies that advance critical thinking pedagogy on a consistent basis could positively impact the range and quality of students' critical-thinking-skills performance.

Purposeful implementation of Dr. Richard Paul and Dr. Linda Elder's Elements of Thought, Intellectual Standards, and of Socratic questioning could strengthen students' perceptions of critical thinking and of their own critical thinking abilities. Educators can cultivate these intellectual traits by encouraging students to develop those skills necessary for clearly and logically evaluating the credibility and reliability of rhetoric. Assuming that an argument can be any language – written, spoken, aural, or visual - that expresses a point of view, it is vitally important that educators challenge students to consider new perspectives on topics they may feel they already understand. It is similarly important to provide practice for analyzing the sorts of arguments that students will be assigned in their various courses. Implementing Paul and Elder's Elements of Thought and Intellectual Standards, as well as Socratic questioning, through direct instruction in rhetorical analysis could encourage students to detect and evaluate assumptions, egocentrism, and sociocentrism in the rhetoric they encounter in literature, the media, and their own writing. Consistent application of Paul and Elder's Intellectual Standards provides students with the tools necessary for acquiring intellectual humility as they approach the complexities of life with clarity, accuracy, and precision, as they explore multiple perspectives

Conference Concurrent Sessions Continued

of difficult problems, and as they learn to sympathetically acknowledge others' viewpoints with breadth and clarity.

This session will focus primarily on designing instruction which integrates direct instruction in rhetorical analysis. Emphasis will be placed on incorporating Paul and Elder's Intellectual Standards and the Elements of Thought. Participants will work in small groups, and will be offered instructional methodologies which encourage the evaluation of expository and argumentative discourse and which develop students' critical thinking, reading, and writing skills.

Critical Thinking and Communication: Teaching Undergraduates the Power of Critical Thinking

Michelle R. Bahr

Professor

Bellevue University

Ballroom D

Critical thinking and communication are intricately connected. Healthy communication requires the critical thinking skills of clarity of thought and a high awareness of our own beliefs, intentions, and values – areas which are commonly lacking in undergraduate students. Strong critical thinking skills allow us to structure our communication in a way that delivers maximum impact.

To build positive critical thinking habits of mind, undergraduates must engage their beliefs, intentions, and values around the importance of thinking critically as the optimal means of solving problems, making decisions, and communicating. Critical thinking is all about real life, and the only way to help build undergraduates' skills and desires to engage critical thinking in communication is to use material from real-life situations when we teach. This session will offer practical examples and discussion of activities, group exercises, and papers which allow undergraduates to improve their communication skills through the employment of critical thinking.

Conference Concurrent Sessions Continued

Becoming Still, Growing Wise

Gladys Mangiduyos

Dean, College of Education and Social Work

Wesleyan University, Philippines

Alexander Valley Room

In this technology-propelled century, reading has been taken over by the advent of enormous gadgets that provide vast information. ‘Becoming Still, Growing Wise’ is a qualitative study on how critical thinking skills are cultivated within 21st-century trends and networks. It presents how RHDA (Read, Highlight, Define, and Answer) enhances learning. It presents as well how this strategy of teaching has empowered the learner to deeply engage himself/herself in analyzing the socio-economic and political situation of the world in general, and the Philippines in particular.

Cultivating Critical Thinking throughout Organizations

Richard King

Principal

Thinking in Organisations, Australia

Bennett Valley Room

Organizations reflect society’s values. They are, however, frequently seen as “critical-thinking-free zones.” Many people who join organizations become frustrated at the lack of support for critical thinking: they are required to apply policies and procedures, and to do what they are told. This session will explore some of the key barriers to critical thinking, and suggest strategies to cultivate an environment in organizations that supports critical thinking. The session uses the Eight Parts of Thinking as a framework to analyze issues with thinking in organizations.



Conference Concurrent Sessions Continued

Concurrent Sessions III

(9:40 a.m. – 10:40 a.m. Thursday)

Why Explicit Discussion of Intellectual Standards is Essential in the Classroom from a Student's Perspective

Rachael Collins

Scholar and Executive Assistant to
the President

Foundation for Critical Thinking

Ballroom C

My purpose in this session is to explore, from a student perspective, the extent to which different faculty use different standards when grading student papers, and how inadequately expressing the standards they adhere to is a hindrance to students' growth as well as to the teaching and learning process.

I will engage participants in a grading activity to exemplify this problem. I will then share some of my experiences in English writing classes, and share some examples of both student and faculty edits which clearly demonstrate the extent to which students and faculty tend to adhere to Intellectual Standards when assessing written work.



Conference Concurrent Sessions Continued

Transformation of a Program Curriculum One Faculty and One Student at a Time

Jeremy Dicus

Assistant Professor, Exercise Science Program
Slippery Rock University

Brock Jensen

Associate Professor, Exercise Science Program
Slippery Rock University

Jeffrey Lynn

Professor, Exercise Science Program
Slippery Rock University

Patricia Pierce

Professor, Exercise Science Program
Slippery Rock University

Ballroom D

Slippery Rock University's Exercise
Science Program is dedicated to

fostering a rich conception of critical thinking in both our faculty and our students. The Exercise Science Program at Slippery Rock University consists of 13 faculty and over 600 students. This initiative began in 2014 and is guided by a core team of four faculty. Our purpose in this process has been to assist faculty with the development of their conception of critical thinking. Additionally, we provide strategies and encourage faculty to utilize their concept of critical thinking in the classroom.

In this concurrent session, participants will be introduced to our implementation process and the barriers our program has faced. Attendees are encouraged to bring their own experiences and engage in discussion on how to initiate or continue an intentional, program-wide implementation of critical thinking.



Conference Concurrent Sessions Continued

Socratic Seminar: The Missing Element in K-12 Critical Thinking Pedagogy

Melissa Edwards

Grades 6-12 School Administrator

Thales Academy

Alexander Valley Room

This session will examine the realities of critical thinking skills in the context of K-12 education. The presenter will define critical thinking skills in relation to K-12 education and demonstrate how, in an effort to best prepare students for the collegiate level, she applies them in the context of Socratic Seminars.

The session will conclude with a discussion about the effectiveness of teaching critical thinking through class discourse, and about methods of assessment appropriate for any grade level.



Conference Concurrent Sessions Continued

Barriers to Critical Thinking in First-Year Medical and Dental Students, and How to Overcome Them

Jacqueline Gardner

Associate Vice President, Student & Academic Services, Faculty Affairs & Academic Societies (CEDS) and Director, A. Cherrie Epps, Ph.D. Center for Educational Development and Support
Meharry Medical College

Carol Freund-Taylor

Associate Professor, Department of Professional and Medical Education
Meharry Medical College

Bennett Valley Room

Over the last nine years, all students matriculating at Meharry Medical College take a selection of four assessments during orientation administered by the Center for Educational Development and Support (CEDS). Two of them, the Health Sciences Reasoning Test (HSRT) and the California Critical Thinking Dispositions Inventory (CCTDI), provide data about critical thinking skills and disposition. The HSRT shows that almost 50% of incoming students do not have strong skills in induction, deduction, analysis, inference, or evaluation. The CCTDI shows that the students' disposition toward critical thinking is at the low end of positive, specifically, 42.8% (71/166) of the incoming students in 2016 scored in the negative (5/166) or ambivalent (66/166) on the scale for "truth-seeking."

Opportunities are provided for assessed students to receive one-on-one feedback from an educational-skills specialist about their results, with accompanying advice on areas to address for the purpose of improving chances of success. Notably, not all students avail themselves of this opportunity to gain insight from the assessments. Furthermore, some who do hear the results do not implement suggestions until a later time, typically after poor performance on an exam leads them to referral for consultation at CEDS.

Based on the experience of the CEDS educational skills specialists, the barriers to critical thinking in the first year students include poor habits ("I've gotten by with this strategy so far"), intellectual arrogance ("I got into medical/dental/graduate school, so I've got this"), intellectual laziness ("just tell me what I need to know so I can memorize it"), and failure to perceive the big picture ("all I have to do is get through this [Step 1/Part 1/candidacy exam], and don't bother me with other stuff").

We will present some barriers to critical thinking in this population of students, and will consider interventions and activities to overcome them.

Conference Concurrent Sessions Continued

Concurrent Sessions IV

(10:55 a.m. – 11:55 a.m. Thursday)

Assessing Critical Thinking: What to Measure and How to Fairly Measure It

Troy Voelker

Associate Professor of Management
University of Houston–Clear Lake

Soma Datta

Assistant Professor of Software Engineering
University of Houston–Clear Lake

Coauthors:

Kwok-Bun Yue, Senior Institutional Research Analyst, University of Houston–Clear Lake

Angela Kelling, Senior Institutional Research Analyst, University of Houston–Clear Lake

Ballroom C

The purpose of our session is to discuss fairminded approaches to the assessment of critical thinking in Applied Critical Thinking (ACT) courses. UHCL created ACT courses during the adoption of “Applied Critical Thinking for Lifelong Learning” as our Quality Enhancement Plan (QEP) in 2012. At that time, we partnered with the Foundation for Critical Thinking in training and professional development to launch our first ACT courses. We currently have a system-wide deployment of ACT with over 40 undergraduate and more than twelve graduate courses; these courses are well-distributed across our four colleges (Business, Education, Humanities, and Science and Engineering).

We intend to discuss the conceptual issues our program faced in establishing new assessment protocols. These protocols fairly protected faculty academic freedom while balancing our needs for system-wide, course-level assessment. Additionally, we will present our experiences and the challenges we have encountered in establishing a University-level approach to assessing critical thinking. Finally, we will present our recent examination of the National Survey of Student Engagement (NSSE); this will offer insight into behavior and experience differences between students who have taken one or more ACT courses, and students who have taken none. We intend to close the session with a discussion on measurement of critical thinking and models for use within classes and programs.

Conference Concurrent Sessions Continued

Flipping the Classroom Using Critical Thinking

Joseph Halter

Instructor, Social Science and General Education Faculty
Moraine Park Technical College

Ballroom D

The session is an exercise in actively engaging students in learning key concepts for each Economics and Ethics learning plan. Each student teaches a key concept for the discipline:

1. The student selects a key concept from a list.
2. The student must research and define the key concept by using the course definition for clarity.
3. The student, in his or her own words, must paraphrase the concept for understanding and accuracy of their interpretation.
4. The student draws or provides an illustration of the concept to visualize the concept for clarity.
5. The student provides a real-life example of the concept for relevancy, significance, and internalization.
6. The student presents the concept in class.
7. Each student then assesses one other student's presentation by using the standards of critical thinking.

This exercise teaches students and instructors the traits of intellectual humility, intellectual courage, and confidence in reasoning.



Conference Concurrent Sessions Continued

Metacognition through Mindfulness: Thinking about Our Thinking through the Use of Mindfulness and Metacognition

Susan Crooks

Language Arts Instructor, Middle School
South Carolina Connections Academy

Walter Crooks

Advisory Teacher, Middle School
South Carolina Connections Academy

Alexander Valley Room

Critical thinking is the process of thinking about our thinking in a systematic and logical way with intent to improve it. But how do we become critically aware of our thinking, and how do we teach our students to get into that space?

During this workshop, we will first take you through simple exercises for mindfulness - the nonjudgmental observation of our thinking. This openness and awareness of our thoughts, maintained while refraining from judgement, is the first step towards effective metacognition. We will explore ways to help students obtain this nonjudgmental awareness, and to transition into metacognition in order to develop an analytical analysis of their thinking and learning. This perspective will allow students to see themselves as thinkers and learners. Finally, we will tie these practices to the application of the Elements of Thought and the Intellectual Standards.

Critical Thinking in the Discipline of Leadership Studies

Adrienne Castellon

Assistant Professor, Doctor of Education
Trinity Western University

Bennett Valley Room

Critical thinking is an essential component of leadership because there is an intelligence to practice. This practical wisdom or *phronesis* incorporates discernment and judgment, and is enhanced through practice. Experiential learning can lead to wisdom if experience is accompanied by critical thinking and intentionally grounded in values and beliefs about what is good. This wisdom is transformational both personally and professionally. In graduate studies, students are expected to think critically, analyze the assertions of others, and propose their own ideas based on reasoned evidence and their phronesis.

Roundtable Discussions

Thursday, August 3

1:20 p.m. – 2:35 p.m.

Ballroom D

The Roundtable Discussions offer an opportunity for us to engage in lively informal dialogue about important topics in education and society. Each Roundtable will begin with a brief (10-15 minute) introduction by the presenter. Join any discussion as you wish.

Examining Pieces of the Critical Thinking Puzzle: Raising Faculty Awareness

Patricia E. Ackerman

Professor of Language Arts Curriculum & Instruction

2017 Coffman Chair, University Distinguished Teaching Scholar

Kansas State University

United States

Consistent with Higher Education pedagogy, Kansas State University adopted critical thinking as one of five foundational 'Undergraduate Student Learning Outcomes' in 2004. Defining, teaching, and assessing what it means for students to think critically can vary between disciplines. The teaching of critical thinking at KSU often takes place implicitly, but is seldom discussed explicitly.

In an effort to increase university-wide discourse about critical thinking, KSU has proclaimed 2017 as The Year of Critical Thinking, beginning with a January teaching workshop conducted by Dr. Gerald Nosich, titled, 'Teaching Critical Thinking within the Logic of One's Own Discipline.' Dr. Nosich facilitated a day filled with learning, thinking, and sharing about the subject of critical thinking, applying Paul & Elder's Intellectual Traits model. Workshop organizers conducted pre- and post-workshop surveys about participants' individual awareness and involvement in the teaching and assessment of critical thinking at KSU.

This presentation will share a brief summary of KSU pre- and post-workshop survey data. Questions from this survey will then be employed as prompts, designed to facilitate Socratic dialogue about how conference participants engage in the process of defining, teaching, and assessing critical thinking in their own academic courses, programs, and institutions.

Roundtable Discussions Continued

Designing a Course that Teaches Students to Think Critically about Problems Concerning War and Peace

Ostin Moon

Post-Graduate Student

Sonoma State University

United States

This presentation concerns the research I have done to create a syllabus for an undergraduate course in world peace education, WP 401.

I began by taking all the core courses in the Sonoma State University School of Education Master's program. In those courses, I drew a concept map listing all the social problems, by subject category, that are preventing world peace at this time. In my reading-research and Literature Review, I made note of how these problems, and proposed solutions, have been addressed in the past.

The syllabus for WP 401 is divided into fifteen weekly lecture and lab sessions in which students work on a separate problem each week. The reading list for the course is the result of my research on these problems and their potential solutions, but the result of the course itself should be solutions created by the students and shared with other peace groups globally via websites linked by a World Peace Social Network (also created by the students).

WP 401 uses transactional and transformational teaching methods to convey critical thinking about the problems concerning war and peace. I wish to invite all educators to consider using this course in their respective venues.

Cultivating the Demand for Critical Thinking throughout Society

Richard King

Principal

Thinking in Organisations

Australia

In an information society dealing with intellectually shallow social media, the cult of celebrity, 'post-truth,' and 'alternative facts,' there has never been a greater need for critical thinking. Critical thinkers, however, should be concerned at an apparent lack of demand for critical thinking. I believe that we have focused for too long on the supply of critical thinkers for society. Unless we can stimulate society's appetite for critical thinking, we face an uphill battle to improve the standard of critical thinking in society.

Roundtable Discussions Continued

Rethinking Foreign Aid to Africa?

Precious Sibiyá

Director, Legal Services

Professional Advisor to the Minister

Ministry of Public Service, Labour and Social Welfare

Zimbabwe



Critical thinking entails constant review of how things are done, with the aim of surpassing the current. Coming from a social welfare arm of government, it is my job to review legislation and policies.

Receiving grants and aid from developed countries, Africa still remains with its incessant woes of poverty, illness, and famine. Rich in human and natural resources, it still cannot stand up and walk alone. Critically applying the mind, I must be able to advise the Zimbabwean government to adopt laws which speak to practice.

This Roundtable will question traditional foreign-aid trends. What form should foreign aid to developing nations take? How long should it last? Are sustainable development goals applicable? When will Africa and other nations receiving aid stand and walk on their feet?

Can Critical Thinking Be Taught?

An Le Dao Thanh Binh

Ph.D. Student

The University of Gloucestershire

United Kingdom

With an unofficial underpinning educational philosophy, exam- and degree-based goals, dependent academic and social practices, and biased assessment in teaching and learning, efforts to prepare Vietnamese territory learners – especially those who major in English Studies programs to be global citizens – prove to be a real challenge. However, changes in thinking can happen when there is willingness from both learners and teachers.

This Roundtable will discuss a case study which seeks to test the effect of KWL (‘what I know,’ ‘what I want to know,’ and ‘what I learned’) strategy on critical reading and writing skills among 25 freshmen in a private Vietnamese university. Its findings confirm that teaching and learning such 21st-century skills as critical thinking depends on the scaffolding in the instructional design, and on controlling the emotional changes.

Roundtable Discussions Continued

Relevance of Critical Thinking: A Proven, Successful Story

Aubrey Mokadi
Special Advisor to the Premier
Free State Provincial Government
South Africa

This is a case study on how I set about to transform an institution of Higher Learning from one that was on the brink of collapse and self-destruction to one that became highly respected, most preferred, and a shining example of transformation in South Africa. In order to achieve this, I relied on the principles of critical thinking as well as the attributes of courage and conviction.



Concurrent Sessions and Roundtable Discussions

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Concurrent Sessions and Roundtable Discussions

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About Richard Paul

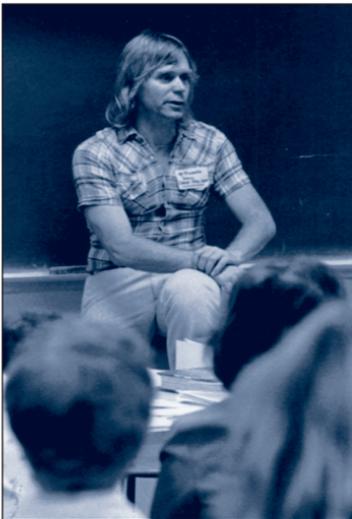
The Founder of the Center and Foundation for Critical Thinking

In 1968, Richard Paul completed his doctoral dissertation for the Ph.D. in Philosophy. His dissertation focused on the following seminal questions:

To what extent do traditional philosophical approaches to the analysis and assessment of reasoning effectively guide one in determining what makes sense to believe and what to reject? More specifically, to what extent do these approaches provide adequate theory for determining when questions have been adequately answered and when assertions or claims have been sufficiently validated?

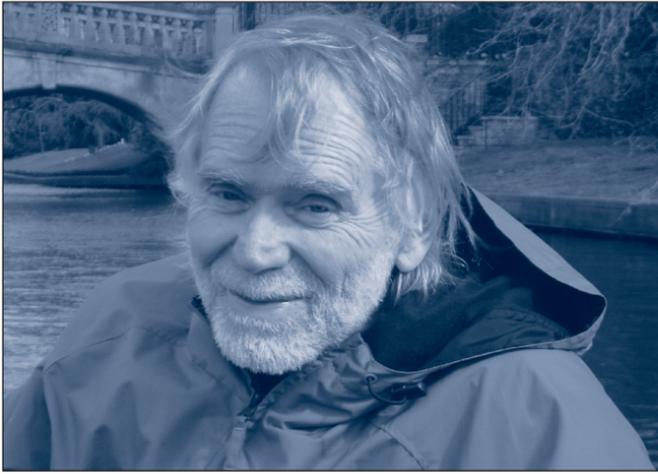
In his critique of traditional philosophical approaches to reasoning, Paul illuminated the conflicting nature of these approaches, as well as the limitations and often glaring inconsistencies within and among them. He asserted the need for replacing the fragmented, inconsistent, and conflicting philosophical approaches to reasoning with an integrated, systematic, and – if possible – universal approach.

Paul argued that the primary task of the logician is to develop tools for the analysis and assessment of reasoning in every discipline and domain of human thought – tools to be used in reasoning through life’s many complex problems



and issues. He emphasized the importance of the “logic of language” to human reasoning. He set forth the idea that every subject and discipline has a fundamental logic that could and should be explicitly formulated (and that an adequate theory of reasoning would provide the foundation for that logic).

Paul’s focus on the importance of explicating intellectual tools for analyzing and assessing reasoning in his 1968 dissertation laid the groundwork for what would become his life’s work. It planted the seeds for the critical thinking theory Paul would develop throughout many years of thinking about the problematics in thinking,



and about the concepts that can be used to intervene in these problematics, thereby improving thinking.

Paul developed, throughout his lifetime, precisely what he called for in his early critique of philosophy: an integrated approach to the analysis and assessment of reasoning, now

used by perhaps millions of people throughout the world. Almost 50 years after the completion of his dissertation, after many years of doggedly pursuing the questions he opened up in it, the name “Richard Paul” and the concept of critical thinking are virtually synonymous throughout the world.

The importance of Paul’s work lies in its richness and in its universal application to human decisions and interactions, in its simplicity and in its complexity, in its delineation of ethical versus unethical critical thought, and in its integration of insights from many domains of human reasoning. Through a developed lens of critical thinking, Paul has detailed a multilogical, multidisciplinary approach to understanding and improving the human mind – and, thus, the human condition.

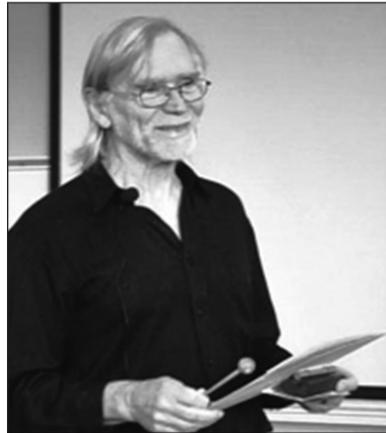
Richard Paul was a living example of a critical mind at work, systematically employing intellectual skills human minds rarely learn, even at foundational levels. His genius lay, among other things, in his willingness to take ideas seriously, to resolutely pursue those ideas through strict adherence to intellectual



standards, to clearly distinguish in his own mind what is known from what is simply believed, and to sincerely embrace and embody the intellectual virtues of the cultivated mind – and to do all of these things routinely and consistently even, and most especially, in his own personal life.

Richard Paul cultivated theory that, were it to be taken seriously in any broad-scale way, would greatly reduce suffering and the pervasive injustices that exist throughout the world, for Paul developed a fairminded conception of criticality accessible to all humans through their own natural languages.

Richard Paul died in August of 2015, but we carry forward his vision for a more forgiving world, a more compassionate world, and in his name, a more merciful world.



The Bertrand Russell Distinguished Scholars Critical Thinking Series



Previous year's conferences have been marked by our Bertrand Russell Distinguished Scholars Critical Thinking Series. This series highlights the work and thinking of distinguished thinkers within subjects, fields, disciplines, or about specific topics or issues. We honor the thinking, the philosophy, and the contributions of Bertrand Russell through this series.

Bertrand Russell was one of the most influential 20th-century philosophers. In the following passages, he emphasizes the importance of open and free inquiry. He stresses the critical need to create

education systems that foster fairminded pursuit of knowledge, and warns of the dangers inherent in dogmatic ideologies.

The conviction that it is important to believe this or that, even if a free inquiry would not support the belief, is one which is common to almost all religions and which inspires all systems of state education...A habit of basing convictions upon evidence, and of giving to them only that degree of certainty which the evidence warrants, would, if it became general, cure most of the ills from which the world is suffering. But at present, in most countries, education aims at preventing the growth of such a habit, and men who refuse to profess belief in some system of unfounded dogmas are not considered suitable as teachers of the young...

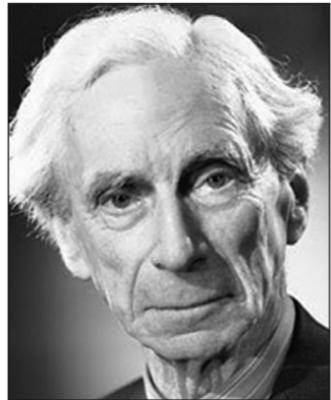
The world that I should wish to see would be one freed from the virulence of group hostilities and capable of realizing that happiness for all is to be derived rather from cooperation than from strife. I should wish to see a world in which education aimed at mental freedom rather than at imprisoning the minds of the young in a rigid armor of dogma calculated to protect them through life against the shafts of impartial evidence. The world needs open hearts and open minds, and it is not through rigid systems, whether old or new, that these can be derived (Russell, 1957, pp. vi-vii).

In his book, *Portraits from Memory*, “Reflections on My Eightieth Birthday,” Russell (1956) comments on the long-term nature of change and the importance of moving ever closer toward the creation of critical societies:

...beneath all this load of failure I am still conscious of something that I feel to be victory. I may have conceived theoretical truth wrongly, but I was not wrong in thinking that there is such a thing, and that it deserves our allegiance. I may have thought the road to a world of free and happy human beings shorter than it is proving to be, but I was not wrong in thinking that such a world is possible, and that it is worth while to live with a view to bringing it nearer. I have lived in the pursuit of a vision, both personal and social. Personal: to care for what is noble, for what is beautiful, for what is gentle; to allow moments of insight to give wisdom at more mundane times. Social: to see in imagination the society that is to be created, where individuals grow freely, and where hate and greed and envy die because there is nothing to nourish them. These things I believe, and the world, for all its horrors, has left me unshaken.

Russell (1919) also illuminates the fact that the vast majority of people today do not think critically, or indeed ethically, and that those who do will seek a “new system of society.” He says:

The great majority of men and women, in ordinary times, pass through life without ever contemplating or criticizing, as a whole, either their own conditions or those of the world at large. They find themselves born into a certain place in society, and they accept what each day brings forth, without any effort of thought beyond what the immediate present requires...they seek the satisfaction of the needs of the moment, without much forethought, and without considering that by sufficient effort the whole condition of their lives could be changed...It is only a few rare and exceptional men who have that kind of love toward mankind at large that makes them unable to endure patiently the general mass of evil and suffering,



regardless of any relation it may have to their own lives. These few, driven by sympathetic pain, will seek, first in thought and then in action, for some way of escape, some new system of society by which life may become richer, more full of joy and less full of preventable evils than it is at present (p. viii).

Bertrand Russell's thoughts and writings on social issues are intimately linked with the ideals of critical thinking and the concept of fairminded critical societies.



References:

Russell, B. (1919). *Proposed Roads to Freedom*. NY: Henry Holt and Co. Russell, B. (1956). *Portraits From Memory and Other Essays*. New York: Simon and Schuster.

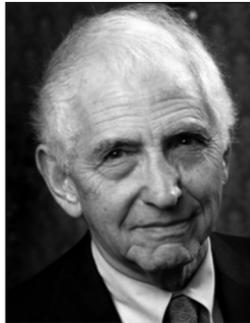
Russell, B. (1957). *Why I am Not a Christian*. New York: Simon and Schuster.

Bertrand Russell Scholars From Previous Conferences

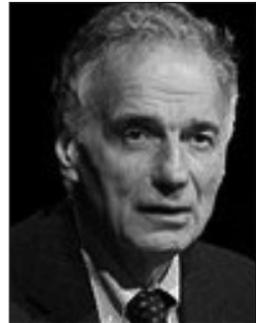
For this year's program, we have chosen not to name a Bertrand Russell scholar; however we honor these scholars from previous conferences who have significantly contributed to the advancement of fairminded critical societies and who stand as exemplars for those seeking to foster critical thinking in their own lives and in their work.



Carol Tavris
at the 36th Conference



Daniel Ellsberg
at the 35th Conference



Ralph Nader
at the 34th Conference



Elizabeth Loftus
at the 33rd Conference



William Robinson
at the 32nd Conference



Michael Shermer
at the 32nd Conference

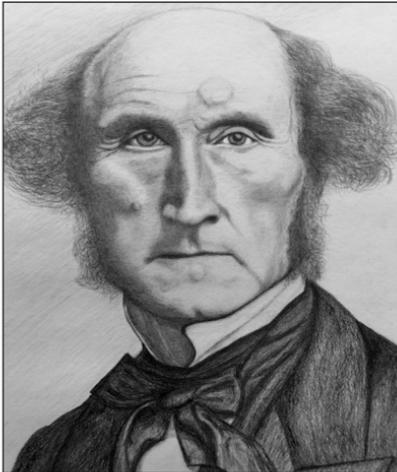
* Drawings by Linda Elder using graphite on acid-free paper, 2015 (Mill) and 2016 (Paine).

Bertrand Russell Scholars Previously Honored Posthumously



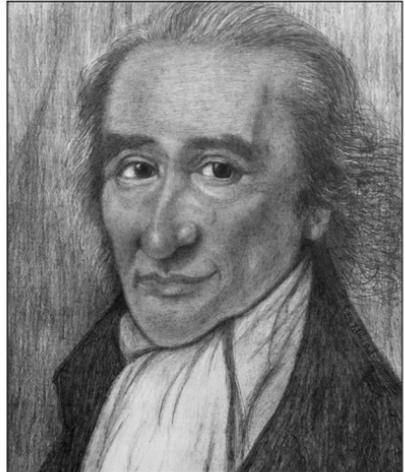
Socrates

Named at the 34th Conference



John Stuart Mill*

Named at the 35th Conference



Thomas Paine*

Named at the 36th Conference

* Drawings by Linda Elder using graphite on acid-free paper, 2015 (Mill) and 2016 (Paine).

Our Contributors

For the first time in the history of the Foundation for Critical Thinking, we are now actively seeking financial contributions to support the advancement of fairminded critical thinking through our work. Below is a list of this year's generous donors. We applaud these early supporters who answered our first calls for help.

Some of the proceeds from our fund drive support international scholarships for this year's conference, enabling attendance by several international scholars who otherwise could not have been with us this year. Your contributions help us with national as well as international outreach, support development of our conferences and academies, and enable the advancement of our online web presence. As the world becomes in many ways increasingly chaotic and pathological, our work remains central to supporting and cultivating fairminded critical societies through explicit tools of criticality.

To donate to the Foundation for Critical Thinking and contribute to the development of fairminded critical societies, visit www.criticalthinking.org and click "Donate." We also welcome in-kind gifts in marketing, in web design or web maintenance, and in other volunteer capacities. We are grateful for anything you can do to advance a robust conception of critical thinking through your donations and efforts. For in-kind contributions, email lindaelder@criticalthinking.org.

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Michael D. Coleman

Sustainers (Major Gifts)

We send our sincerest gratitude to Doyne Elder who, in an act of extraordinary generosity, amended his personal trust to leave his home to the Foundation for Critical Thinking upon his passing.

Finally, we give a very special thanks to Kathy Abney, who has offered her talents and expertise as an illustrator and designer through many years of volunteer work – and without whom many projects, including this conference program, would not have been possible.

Foundation for Critical Thinking Books and Guides

The following publications have been written by Foundation for Critical Thinking Fellows and are available in our conference bookstore, or at www.criticalthinking.org/store:

- *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World*
- *Critical Thinking: Tools For Taking Charge of Your Learning and Your Life, Third Edition*
- *Critical Thinking: Tools for Taking Charge of Your Professional and Personal Life, Second Edition*
- *Critical Thinking: Learn the Tools the Best Thinkers use*
- *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum*
- *30 Days to Better Thinking and Better Living With Critical Thinking*
- *Critical Thinking Handbook: K-3rd Grades*
- *Critical Thinking Handbook: 4th-6th Grades*
- *Critical Thinking Handbook: 7th-9th Grades*
- *Critical Thinking Handbook: High School*
- *The Aspiring Thinker's Guide to Critical Thinking*
- *The Thinker's Guide: A Glossary of Critical Thinking Terms and Concepts*
- *The Thinker's Guide to Analytic Thinking*
- *The Thinker's Guide to Intellectual Standards*
- *The Miniature Guide to the Human Mind*
- *The Miniature Guide to Critical Thinking for Children*
- *The Miniature Guide to the Art of Asking Essential Questions*
- *The Teacher's Manual for the Miniature Guide to Critical Thinking for Children*
- *The Thinker's Guide to Clinical Reasoning*
- *The Thinker's Guide to Engineering Reasoning*
- *The Miniature Guide to Critical Thinking Concepts and Tools*
- *A Critical Thinker's Guide to Educational Fads*
- *The Thinker's Guide for Students on How to Study and Learn a Discipline*
- *The Thinker's Guide to How to Write a Paragraph*
- *The Thinker's Guide to How to Read a Paragraph*
- *The Thinker's Guide to Fallacies: The Art of Mental Trickery and Manipulation*

- *The Thinker's Guide for Conscientious Citizens on How to Detect Media Bias and Propaganda*
- *The Thinker's Guide to the Art of Socratic Questioning*
- *The Miniature Guide to Understanding the Foundations of Ethical Reasoning*
- *The International Critical Thinking Reading & Writing Test*
- *A Miniature Guide to For Those Who Teach on How to Improve Student Learning*
- *A Miniature Guide for Students and Faculty to Scientific Thinking*
- *A Guide for Educators to Critical Thinking Competency Standards*
- *The Thinker's Guide to the Nature and Functions of Critical and Creative Thinking*
- *The Student Guide to Historical Thinking*
- *The Instructor's Guide to Critical Thinking*
- *Historical Thinking: Bringing Critical Thinking Into the Heart of Historical Study*



The Foundation for Critical Thinking seeks to promote essential change in education and society through the cultivation of fairminded critical thinking – thinking committed to intellectual empathy, intellectual humility, intellectual perseverance, intellectual integrity, and intellectual responsibility. A rich intellectual environment is possible only with critical thinking at the foundation of education. Why? Because only when students learn to think through the content they are learning in a deep and substantive way can they apply what they are learning in their lives. Moreover, in a world of accelerating change, intensifying complexity, and increasing interdependence, critical thinking is now a requirement for economic and social survival.



Contact us online at criticalthinking.org to learn about our publications, videos, workshops, conferences, and professional development programs.

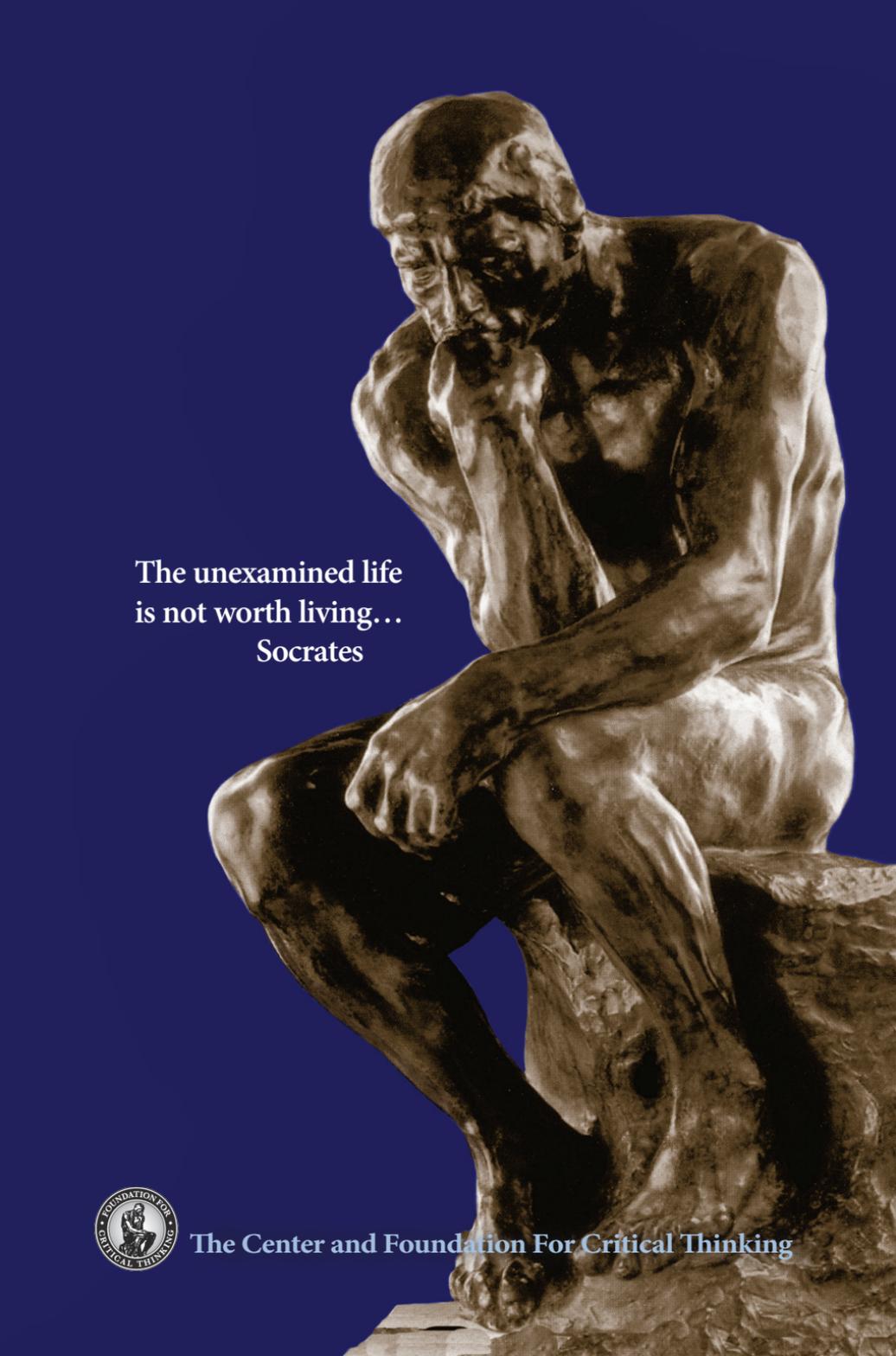
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The unexamined life
is not worth living...
Socrates



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