




# The 45th Annual International Conference on Critical Thinking

...The Longest-Running  
Critical Thinking Conference  
in the World

*July 23- July 27, 2025*

A market economy is compatible with democracy only insofar as large accumulations of capital cannot be used to harness mass communications to manipulate the public into the service of vested interest and private greed. There is no way to prevent such practices except through the development of sophisticated critical thinking processes on the part of the electorate as a whole. – *Richard Paul in “Critical Thinking, Human Development, and Rational Productivity” (1985)*



UNIVERSITY of LOUISVILLE

## Introduction to the Conference

The Center and Foundation for Critical Thinking have together hosted critical thinking academies and conferences for forty-five 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 your understanding of critical thinking, as well as your 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. They learn that every historical text is written from some perspective, or set of perspectives. And these perspectives are frequently biased, as is the nature of the human mind. 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 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,

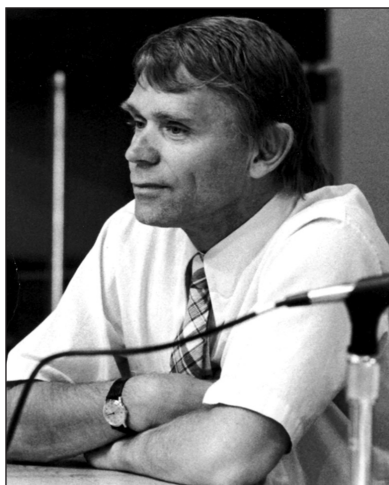
...The Longest-  
Running Critical  
Thinking  
Conference in  
the World



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 assume that all of the participants in the conference bring to it a shared general interest in critical thinking, understood as a family of interdependent intellectual skills and abilities in need of support by a complex of rational passions. We assume, as well then, that all participants share a commitment to the principle that such abilities and affective qualities can only be developed over an extended period of time and as a result of careful cultivation.”

– Richard Paul, from  
p. 6 of the conference  
program for the  
Sixth International  
Conference on  
Critical Thinking and  
Educational Reform

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## Dedication

This year's program is dedicated to  
all those people working to develop critical  
fairminded democracies across the world.



## General Conference Information

### Important Announcements

1. **Please turn all cell phone ringers and notification sounds off during all sessions.**
2. **Please review all of the information included in this program and in your packet.** You will find a campus map, 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 presenters (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 easy reference in group activities.
7. **Please attend only the Focal Sessions you have registered for.** We have assigned rooms and prepared our materials based on everyone's session selections. If you think the session you are registered for will not meet your needs, speak with the presenter in the session of your preference to see if your participation can be accommodated.
8. **Please feel free to ask for assistance or information during breaks and lunch at the information desk, which will be in room DA 109.**
9. A complimentary buffet-style lunch will be served each day at The Ville Grille (building number 048A), a 200-yard westward walk from Davidson Hall across S. 3rd Street.
10. A Starbucks is open until 3:00 p.m. each day in the Swain Student Activities Center (building number 0016), a 200-yard eastward walk from Davidson Hall.
11. For additional announcements and information, visit [criticalthinking.org](http://criticalthinking.org) and click "Conferences & Events," "45th Annual International Conference on Critical Thinking," and then "FAQ and Announcements," or visit: [www.criticalthinking.org/pages/45th-conference-faq/1702](http://www.criticalthinking.org/pages/45th-conference-faq/1702)



## **Answers to Frequently Asked Questions:**

### **Can I get a list of all conference participants?**

Our privacy policy prevents us from providing this. However, we design 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. Also consider joining the *Center for Critical Thinking Community Online* at [criticalthinkingcommunity.org](http://criticalthinkingcommunity.org), where you can connect with others looking to develop their understanding and practice of critical thinking.

### **How do the Concurrent Sessions work?**

All Concurrent Sessions will be held on Saturday, July 26 throughout the day. Please read the Concurrent Sessions Program in this program, in advance, to decide which sessions seem most relevant to your work and life. You do not need to pre-register for Concurrent Sessions.

### **How do the Roundtable Discussions work?**

All Roundtable Discussions will take place concurrently on Saturday, July 26 at 1:20 p.m. Please see the Roundtable Discussions Program in this program for details, and to decide which Discussions seem most relevant to your work and life.

### **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 or online professional development programs in critical thinking?**

Yes, both. There is a general professional development proposal included in your registration packet. For more information, visit [www.criticalthinking.org](http://www.criticalthinking.org), click 'Professional Development,' and then click 'Professional Development in Critical Thinking.' To discuss our professional development programs, please email Nicole Fargo-Nosich at [fargo@criticalthinking.org](mailto:fargo@criticalthinking.org).

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

Those who wish to facilitate instruction in critical thinking with colleagues, or as trainers in business and government, may seek certification in the *Paul-Elder Framework for Critical Thinking*. To learn about becoming certified in our approach, visit [www.criticalthinking.org](http://www.criticalthinking.org), click the 'Professional Development' tab, and then click 'Certification in the Paul-Elder Approach to Critical Thinking.'



### How can I get information on assessing critical thinking?

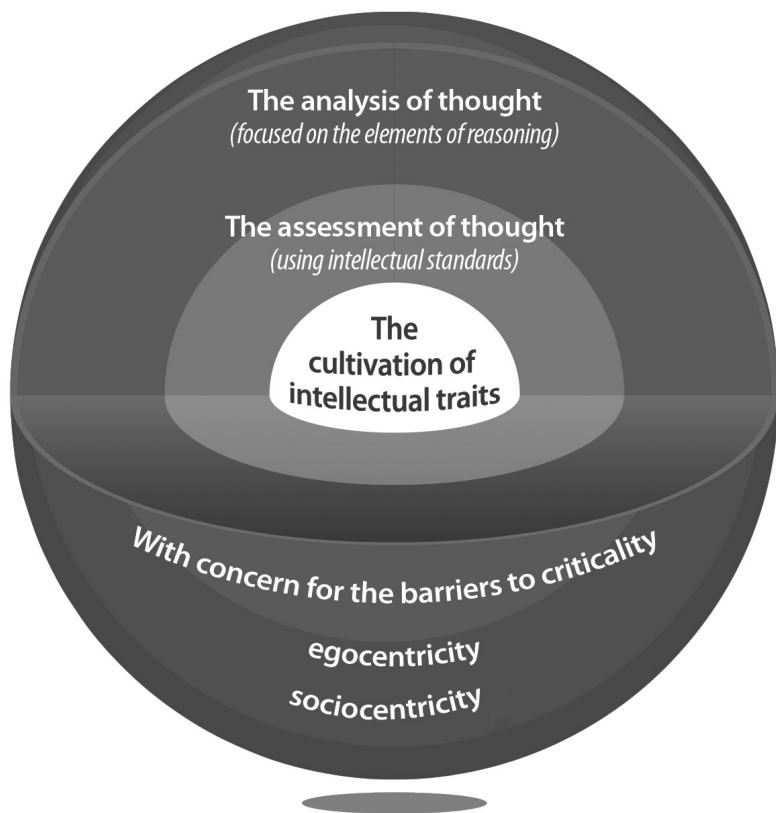
Visit [www.criticalthinking.org](http://www.criticalthinking.org), click the 'Assessment & Testing' tab, and then click 'Critical Thinking Testing and Assessment.'



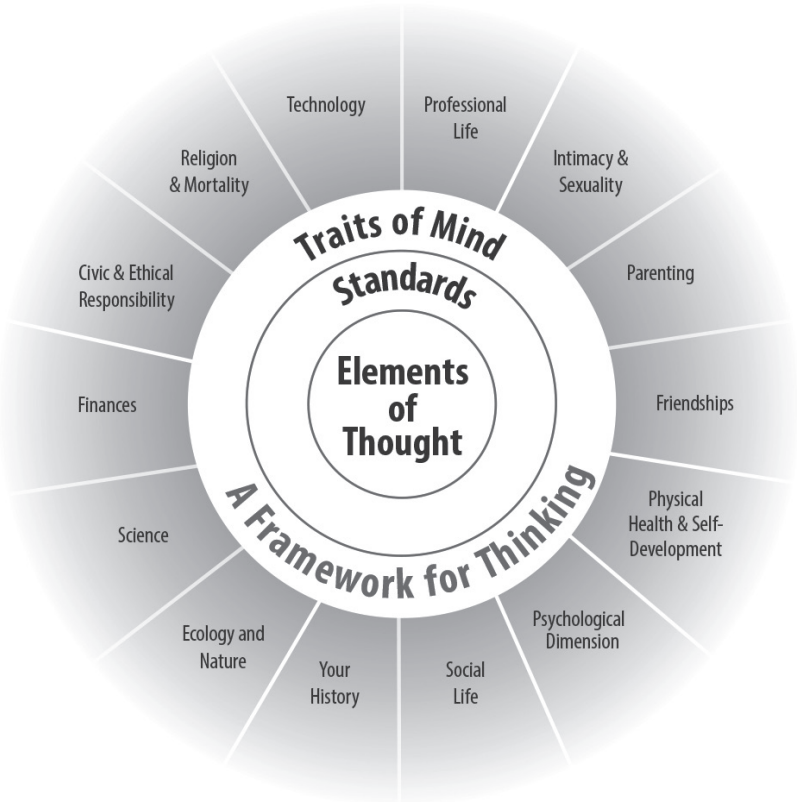
Ralph Nader and Linda Elder at the 34th International Conference

## THE CORE OF CRITICAL THINKING

The concept of critical thinking includes the disciplined analysis and assessment of reasoning as one cultivates intellectual virtues in one's self. This process entails concern for two primary barriers to criticality—egocentric and sociocentric thinking—which are prevalent and widespread in human thought and life.



THINK CRITICALLY ACROSS ALL PARTS  
OF YOUR LIFE



Critical Thinking is Needed in ALL Dimensions of Life

## Conference Overview

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

1. *Focal Sessions* that are designed to foster deeper understanding of core critical thinking concepts and principles, and to contextualize these principles within important domains. These sessions are led 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. *Plenary Sessions* attended by all participants. These include the Keynote, a session on the topic of Critical Thinking Therapy, and the Closing Session.

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 room DA 109, before, between, and after sessions. Wednesday – Saturday.



## Conference at a Glance

### Wednesday, July 23

#### Pre-Conference Sessions:

9:00 a.m. - 4:00 p.m.

Conference registrants choose one of the following sessions to attend:

- **For Educators:**  
The Foundations of Critical Thinking as Essential to Instruction... Gerald Nosich  
*Room: DA 101*
- **For Business, Government, and Administration:**  
How to Leverage Critical Thinking Throughout Your Work... Brian Barnes  
*Room: DA 104*

### Thursday, July 24

#### Main Conference Opening Ceremony & Keynote Address

9:00 a.m. - 10:15 a.m.

For all attendees:

- Welcome and Keynote...  
**Linda Elder and Gerald Nosich, Senior Fellows**  
*Room: DA 103*

### Thursday, July 24 cont.

#### Focal Sessions I:

10:30 a.m. - 11:45 p.m.

Conference registrants choose one of the following sessions to attend:

- **For Higher Education:**  
Intellectual Virtues as Essential to the Educated, Ethical Person... Gerald Nosich  
*Room: DA 101*
- **For K-12 Education:**  
Building Classroom Communities and Student Activities that Foster Intellectual Virtues... Carmen Polka  
*Room: DA 103*
- **For Business, Government, and Administration:**  
Why Skilled Leadership Requires Embodying and Cultivating Intellectual Virtues... Brian Barnes  
*Room: DA 104*
- **Advanced Session for Returning Participants:**  
Exploring Richard Paul's Writings: Background Logic, Critical Thinking and Irrational Language Games... Linda Elder  
*Room: DA 107*

## Conference at a Glance

### Thursday, July 24 cont.

#### Focal Sessions II:

1:15 p.m. - 4:00 p.m.

Conference registrants choose one of the following sessions to attend:

- **For Higher Education:**  
Teaching Students to Analyze and Assess Reasoning in Every Subject Throughout All Course Content... Gerald Nosich  
*Room: DA 101*
- **For K-12 Education:**  
Approaching Your Students as Thinkers Throughout the Educational Process... Paul Bankes  
*Room: DA 103*
- **For Business, Government, and Administration:**  
How Critical Thinking is Essential to Problem Solving and Skilled Decision-Making... Brian Barnes  
*Room: DA 104*
- **Advanced Session for Returning Participants:**  
Socrates' Striking Contributions to the Concept and Theory of Critical Thinking... Linda Tym  
*Room: DA 107*

### Friday, July 25

#### Focal Sessions III:

9:00 a.m. - 11:45 a.m.

Conference registrants choose one of the following sessions to attend:

- **For Higher Education:**  
Teaching Students to Ask Questions that Facilitate Vital Understandings in Your Course... Gerald Nosich  
*Room: DA 101*
- **For K-12 Education:**  
Teaching Students to Study Effectively and Learn Deeply... Carmen Polka  
*Room: DA 103*
- **For Business, Government, and Administration:**  
Asking Questions that Lead to Effective Choices, Efficient Procedures, and Powerful Insights in Your Professional Life... Brian Barnes  
*Room: DA 104*
- **How Profound Ideas Link Together and How to Internalize Them...** Linda Tym  
*Room: DA 107*

## Conference at a Glance

### Friday, July 25 cont.

#### Focal Sessions IV:

1:15 p.m. - 4:00 p.m.

Conference registrants choose one of the following sessions to attend:

- **For All Educators:**  
Teaching Students to Internalize the Most Integral and Empowering Concepts in Your Fields of Study... Gerald Nosich  
*Room: DA 101*
- How the Human Mind is Prone to Self-Handicapping Through Egocentric Forces...  
Carmen Polka  
*Room: DA 103*
- **For All Educators:**  
Critical Reading: A Prerequisite for Deep Learning in Any Subject and How to Teach It...  
Paul Bankes  
*Room: DA 104*
- **Advanced Session for Returning Participants:**  
Seeking the Limits of Your Critical Thinking Knowledge...  
Linda Elder  
*Room: DA 107*

### Saturday, July 26

#### Concurrent Sessions

To choose Concurrent Sessions, see the Concurrent Session Program, page 52. Choose one for each time slot.

#### Concurrent Sessions I:

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

- A Low Dose Rate Equals Big Results in Dental Radiology Education... Lavina Myers  
*Room: DA 101*
- Using the Foundation for Critical Thinking Framework to Connect Research Policy and Practice in Education... Sunshine Moss  
*Room: DA 108*
- Critical Thinking and the Management of Kinetic Actions in Nigerian Military Operations...  
Ogeregbe Michael Oriewu  
*Room: DA 107*
- Critical Thinking and Global Competencies: Using Critical Thinking to Bring Ideas into Strategy... Susannah Johnson  
*Room: DA 103*
- Improving Student Critical Thinking Through Direct Instruction in Rhetorical Analysis...  
Lauren McGuire  
*Room: DA 109*

## Conference at a Glance

### Saturday, July 26 cont.

#### Concurrent Sessions cont.

To choose Concurrent Sessions, see the Concurrent Session Program, page 52. Choose one for each time slot.

#### Concurrent Sessions II:

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

- My Ongoing Journey Toward Fair Minded Critical Thinking: Insights and Transformations... Nadine Ezzeddine  
*Room: DA 107*
- Exploring the Experience of a High School Teacher Implementing the Paul & Elder Critical Thinking Model in Teaching English as a Foreign Language... Drissia Ounnich  
*Room: DA 109*
- The Dynamics of Critical Thinking in a Multimedia Presentation with Intellectual Humor... Danuta Furszpaniak  
*Room: DA 104*
- The Beauty of the Paul-Elder Model for Achieving Aspirational Organizational Objectives by Developing Critically Thinking Collaborators... Paul Consalvi  
*Room: DA 101*

### Saturday, July 26 cont.

- Assessing Critical Thinking in Community College: Supports, Challenges, and Opportunities Minded Critical Thinking: Insights and Transformations... David Campbell, Lauren Pellegrino, Kaya Muller  
*Room: DA 103*

#### Concurrent Sessions III:

**10:50 a.m. - 11:50 p.m.**

- Embodying Critical Thinking in Leadership Practice... Sara Lynne Willett  
*Room: DA 103*
- Using an Innovative Video Assignment to Jumpstart Critical Thinking in an Online Capstone Course... Edna Ross  
*Room: DA 108*
- More Than Meaning: Using Poetry to Deepen Critical Thinking... Norman Minnick  
*Room: DA 107*
- Operationalizing the Paul-Elder Framework for Instruction, Assessment, and Student Development... David Johnson  
*Room: DA 109*



## Conference at a Glance

### Saturday, July 26 cont.

- Critical Thinking as Criteria for Learning Outcomes in Schools...  
Susannah Johnson  
*Room: DA 101*

### Roundtable Discussions

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

*Room: DA 101*

See page 68 for details.

#### Cluster I

- There and Back Again: Theoretical Wisdom, Practical Wisdom, & Critical Thinking... Matt Isaia
- Grounding Critical Thinking in Objective Reality... Bryan Calkin



### Saturday, July 26 cont.

#### Cluster II

- Utilizing Hip-Hop Lyrics to Foster Students' Critical Thinking: Language, Identity and Interpretation... C. Keith Harrison
- Professional Development Workshop: Applying the Dual-Process Model to Promote Preservice Teachers' Critical Thinking Skills in Hybrid Learning... Fatiha Bazouche
- A Journey of Discovery in Nigerian Military and Intelligence Community Education... Caroline Obiageli

#### Cluster III

- Clarifying Insights and Misinterpretations of the Paul Elder Critical Thinking Framework for Freshman Psychology Students... Azriel Williams, Loui Chang, Edna Ross
- Two Sides of the Coin: Evaluating Critical Thinking Environments... Il Barrow

## Conference at a Glance

### Saturday, July 26 cont.

#### Focal Sessions V:

2:35 p.m. - 4:00 p.m.

Conference registrants choose one of the following sessions to attend:

- **For Higher Education:**  
Classroom Strategies for Improving Student Learning on a Typical Day... Gerald Nosich  
*Room: DA 101*
- Why Critical Thinking Is in Danger and What This May Mean for Human Societies... Linda Elder  
*Room: DA 107*
- **For Higher Education Administrators:**  
Bringing Critical Thinking Across the Curriculum at Your Institution... Patty Payette  
*Room: DA 104*
- **For K-12 Educators:**  
Active and Cooperative Learning that Adheres to Critical Thinking Standards... Paul Bankes  
*Room: DA 103*

### Sunday, July 27

#### Focal Sessions VI:

9:00 a.m. - 11:45 a.m.

Conference registrants choose one of the following sessions to attend:

- **For Higher Education:**  
Teaching Students to Write Substantive Papers Using the Tools of Critical Thinking... Gerald Nosich  
*Room: DA 101*
- How Group Think, Prejudice, and Conformity are Tremendous Barriers to Criticality... Linda Tym  
*Room: DA 107*
- **For K-12 Educators:**  
Writing for Growth and Development... Carmen Polka  
*Room: DA 103*
- **For All Educators:**  
Helping Your Students Think Through Social and Political Issues with Discipline and Empathy... Paul Bankes  
*Room: DA 104*

## Conference at a Glance

### Sunday, July 27 cont.

#### Plenary Session

1:15 p.m. - 2:45 p.m.

*Room: DA 103*

- Critical Thinking Therapy: How Critical Thinking Can Lead Us Out of Toxic Lifestyles...  
Linda Elder & Gerald Nosich



### Sunday, July 27 cont.

#### Closing Session for All Attendees

*Where Do We Go from Here?*

3:00 p.m. - 4:00 p.m.

*Room: DA 103*

- Detailing Your Own Plans for Moving Forward Using Your New Critical Thinking Understandings... Fellows and Scholars of the Foundation for Critical Thinking



## Daily Schedule

### Wednesday, July 23 (Pre-Conference)

8:15 a.m. - 9:00 a.m.	Pre-Conference Registration & Check-In
9:00 a.m. - 10:30 a.m.	Pre-Conference Sessions Begin
10:30 a.m. - 10:45 a.m.	Break
10:45 a.m. - 11:45 a.m.	Pre-Conference Sessions Continue
11:45 a.m. - 1:15 p.m.	Lunch
1:15 p.m. - 2:45 p.m.	Pre-Conference Sessions Continue
2:45 p.m. - 2:55 p.m.	Break
2:55 p.m. - 4:00 p.m.	Pre-Conference Sessions Continue

*View Richard Paul video (looping) in Room DA 109 before sessions begin each day, during breaks and lunch, and after the afternoon sessions.  
(Wednesday - Saturday)*





## Daily Schedule Continued

### Thursday, July 24 (Main Conference Begins)

8:15 a.m. - 9:00 a.m.	Main Conference Registration & Check-In
9:00 a.m. - 10:15 a.m.	Welcome and Keynote Address
10:15 a.m. - 10:30 a.m.	Break
10:30 a.m. - 11:45 a.m.	Focal Sessions I
11:45 a.m. - 1:15 p.m.	Lunch
1:15 p.m. - 2:30 p.m.	Focal Sessions II Begin
2:30 p.m. - 2:45 p.m.	Break
2:45 p.m. - 4:00 p.m.	Focal Sessions II Continue

### Friday, July 25

9:00 a.m. - 10:30 a.m.	Focal Sessions III Begin
10:30 a.m. - 10:45 a.m.	Break
10:45 a.m. - 11:45 a.m.	Focal Sessions III Continue
11:45 a.m. - 1:15 p.m.	Lunch
1:15 p.m. - 2:30 p.m.	Focal Sessions IV Begin
2:30 p.m. - 2:45 p.m.	Break
2:45 p.m. - 4:00 p.m.	Focal Sessions IV Continue

*View Richard Paul video (looping) in Room DA 109 before sessions begin each day, during breaks and lunch, and after the afternoon sessions.  
(Wednesday - Saturday)*

## Daily Schedule Continued

### Saturday, July 26

8:30 a.m. - 9:30 a.m.	Concurrent Sessions I
9:30 a.m. - 9:40 a.m.	Break
9:40 a.m. - 10:40 a.m.	Concurrent Sessions II
10:40 a.m. - 10:50 a.m.	Break
10:50 a.m. - 11:50 a.m.	Concurrent Sessions III
11:50 a.m. - 1:20 p.m.	Lunch
1:20 p.m. - 2:20 p.m.	Roundtable Discussions
2:20 p.m. - 2:35 p.m.	Break
2:35 p.m. - 4:00 p.m.	Focal Sessions V

### Sunday, July 27

9:00 a.m. - 10:30 a.m.	Focal Sessions VI Begin
10:30 a.m. - 10:45 a.m.	Break
10:45 a.m. - 11:45 a.m.	Focal Sessions VI Continue
11:45 a.m. - 1:15 p.m.	Lunch
1:15 p.m. - 2:45 p.m.	Plenary Session on Critical Thinking Therapy
2:45 p.m. - 3:00 p.m.	Break
3:00 p.m. - 4:00 p.m.	Closing Session – Everyone Together

## Focal & Plenary Session Presenters

### Senior Fellows of the Foundation for Critical Thinking



**Dr. Linda Elder** is an educational psychologist and international authority on critical thinking. President and Senior Fellow at the Foundation for Critical Thinking, she has taught psychology and critical thinking at the college level, and has given presentations to more than 50,000 educators and leaders.

Dr. Elder is author of *Liberating the Mind:*

*Overcoming Sociocentric Thought and Egocentric Tendencies*. She has also coauthored four books, including *30 Days to Better Thinking and Better Living through Critical Thinking* and *Critical Thinking: Tools for Taking Charge of Your Professional and Personal Life*, as well as 24 Thinker's Guides on critical thinking. Concerned with understanding and illuminating the relationship between thinking and affect, and with the barriers to critical thinking, Dr. Elder has placed these issues at the center of her thinking and work.



**Dr. Gerald Nosich** is a noted authority on critical thinking and has given more than 250 workshops to instructors and governmental agencies on all aspects of teaching it. He is the author of *Reasons and Arguments*, *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum*, and *Critical Writing: Using the Concepts and Processes of Critical Thinking to Write a Paper*.

Dr. Nosich has given workshops for instructors at all levels of education in the United States, Canada, Thailand, Lithuania, Austria, Germany, Singapore and England. He has worked with the U.S. Department of Education on a project for a National Assessment of Higher Order Thinking Skills; given teleconferences sponsored by PBS and Starlink on teaching for critical thinking; served as a consultant for ACT in Critical Thinking and Language Arts assessment; and been featured as a Noted Scholar at the University of British Columbia. Dr. Nosich is author of numerous articles, audio- and videotapes on critical thinking. He has been Assistant Director at the Center for Critical Thinking at Sonoma State University, and is Professor Emeritus at the State University of New York Buffalo State and at the University of New Orleans.

## Focal & Plenary Session Presenters Continued

### Scholars of the Foundation for Critical Thinking



**Ms. Carmen Polka** has worked diligently to infuse critical thinking into her classroom instruction, curriculum, and assessment for more than eighteen years. Focused on transforming education through the implementation of quality instructional practices, Ms. Polka instigated and co-authored 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 Paulian theory.

Ms. Polka is currently a principal at an elementary school, as well as a Doctoral candidate in the Educational Leadership and Policy Studies program at the University of Northern Colorado. She is also a licensed K-12 Special Education teacher.



For nearly twenty years, **Dr. Paul Bankes** has played an important leadership role in fostering the Paulian conception of critical thinking in multiple school districts. As a principal, he led the implementation of this critical thinking approach to bring about state-recognized levels of achievement in three different Title I schools—a high school, a middle school, and an elementary school. He helped author the reasoning portion of the Colorado Academic Standards that are based on the Paul-Elder framework. In addition to his administrative experience, Dr. Bankes was an elementary school teacher, continues teaching critical thinking courses at the college level, and served as a Director on his School Board of Education.

## Focal & Plenary Session Presenters Continued

### Scholars of the Foundation for Critical Thinking



**Dr. Brian Barnes** holds a Ph.D. in Interdisciplinary Humanities and an MA in Philosophy from the University of Louisville. Barnes is a veteran of the US Army, along with other non-academic careers, and currently teaches face-to-face and online classes at several universities in traditional philosophy topics, sustainability, and critical thinking. He has co-authored articles examining critical thinking

strategies and tactics for the National Teaching and Learning Forum and is author of the textbook, *The Central Question: Critical Engagement with Business Ethics*. Barnes co-hosts the weekly radio show, *Critical Thinking for Everyone!*, on 106.5 Forward Radio in Louisville; he also created *Adventures in Critical Thinking*, a critical thinking comic book series.



**Dr. Linda Tym** is an Associate Professor of English in Alabama. Originally from Canada, she completed her PhD studies at the University of Edinburgh and was a Postdoctoral Research Fellow at The Institute for Advanced Studies in the Humanities. She is currently pursuing her Certification in the Paul-Elder Approach to Critical Thinking under the mentorship of Dr. Elder.

In addition to Dr. Tym's focus on critical thinking, her research focuses on memory studies, Scottish literature, and Scottish-Canadian diasporic literature. Her work has been published in the *Scottish Literary Review*, *Journal of the Short Story in English*, *Macmillan Interdisciplinary Handbooks: Gender series*, and *Gale Cengage's Contemporary Literary Criticism series*.

## Focal & Plenary Session Presenters Continued



**Dr. Patty Payette** is executive director of the Quality Enhancement Plan (QEP) at the University of Louisville and the Decisiveness Virtue Expert at their Center for Positive Leadership. In these positions, Patty leverages her expertise in faculty development, curriculum design, critical thinking, and higher education training and development. Over the last 20 years, Dr. Payette has designed and delivered

hundreds of workshops on teaching and learning topics, including dozens of sessions on critical thinking across the curriculum. She consults with schools and colleges nationally on the design and implementation of critical thinking initiatives and QEP programs. She co-authored with Dr. Brian Barnes a series of six articles for *The National Teaching and Learning Forum* on teaching for critical thinking and serves as a consulting editor for the journal *College Teaching*. She earned her doctorate from the Department of English at Michigan State University in 2001.



Dr. Elder and Dr. Nosich are first-generation Paulian Scholars; each studied directly with Richard Paul for more than twenty years. The works of Paul, Elder, and Nosich are translated into many languages world-wide, including Chinese, Japanese, Turkish, Korean, French, German, Arabic, Spanish, Thai, Greek, and Polish.



The Bertrand Russell Distinguished Scholars Lecture was given by Elizabeth Loftus at the 33rd Annual International Conference.





## Focal & Plenary Session Descriptions

All conference delegates have registered for their choices from the following sessions. See your confirmation sheet (in your packet) if you are unclear as to which Focal Sessions you have selected. Please attend only the sessions you chose in advance, as room assignments have been determined based on enrollment totals for each session. If any problems arise, please see us at the Help & Information desk

### Wednesday, July 23 Focal Sessions

#### Pre-Conference Sessions (9:00 a.m. – 4:00 p.m.)

##### *For Educators:*

##### **The Foundations of Critical Thinking as Essential to Instruction... Gerald Nosich**

*Room: DA 101*

The elements of reasoning, intellectual standards, intellectual virtues, and the innate barriers to critical thinking (egocentrism and sociocentrism) together form the bedrock of critical thinking theory. Most educators who discover these fundamentals stop working with them before they can adequately take ownership of them as powerful tools, and they therefore remain unable to employ them effectively and consistently in their instruction.

Bringing critical thinking into the classroom entails first understanding the concepts and principles embedded in critical thinking, then applying them throughout the curriculum. It means developing powerful strategies that emerge when we take critical thinking seriously as a means of cultivating the intellects of our students at all levels.

This session lays the groundwork for internalizing the foundations of critical thinking and beginning to apply them in the classroom or in online courses.



## Wednesday, July 23 Pre-Conference Session

### Descriptions Continued

#### *For Business, Government, and Administration:*

#### **How to Leverage Critical Thinking Throughout Your Work... Brian Barnes**

*Room: DA 104*

Whether we recognize it or not, whether it is ours or someone else's, thinking is the most significant determinant of the quality of our work. It is always functioning with us, determining how we see our organizations or departments as well as our respective places within them. Our thinking determines the extent to which we reason well through problems, and whether we accurately and sufficiently consider the implications of our important decisions. It determines whether we can identify the assumptions we make and when we should question them. It is so much a part of our experience that we tend to take it for granted, assuming that it works well for us. In other words, we do not often question our thinking, even when the quality of our work is poor.

This session will help you to begin internalizing the foundations of critical thinking and developing practical ways to infuse them throughout your professional work, both individually and institutionally. It will provide tools for systematic analysis and evaluation of any question, problem, and procedure.



## Thursday, July 24 Focal & Plenary Sessions

### Keynote Address (9:00 a.m. – 10:15 a.m.)

Welcome & Keynote... Linda Elder & Gerald Nosich

*Room: DA 103*

Join the Senior Fellows and Scholars of the Foundation for Critical Thinking, as well as your fellow delegates from around the world, as we introduce this year's conference, make general announcements, and set the tone for a historic and unforgettable event.

### Focal Sessions I (10:30 a.m. – 11:45 a.m.)

*For Higher Education:*

**Intellectual Virtues as Essential to the Educated, Ethical Person... Gerald Nosich**

*Room: DA 101*

Critical thinking does not entail merely intellectual skills. Rather, it is a way of orienting oneself in the world. It is a different way of approaching learning and problems from that which is typical in human life. People may have some critical thinking skills and abilities, yet be unable to enter viewpoints with which they disagree; incapable of analyzing the beliefs guiding their behavior; inept at distinguishing what they know from what they don't; and unwilling to persevere through difficult problems and issues, to duly consider the rights and needs of others, or to responsibly dissent. Thus, it is necessary to develop intellectual virtues such as intellectual humility, intellectual perseverance, intellectual courage, intellectual empathy, intellectual autonomy, intellectual integrity, confidence in reason, and fairmindedness.

Intellectual traits go beyond knowing a given set of skills; they define a person's intellectual character. That character impacts not only the thinker and his or her social circle, but also the society in which the thinker lives. The successes and failures of any society depends largely upon the degree to which it embodies intellectual virtues, or in other words, rational and ethical intellectual character.

This session will describe the desirable intellectual traits shared by ethical critical thinkers—necessary for high-level functioning throughout learning, teaching, and work and life in general—and how to develop them over time.

## Thursday, July 24 Focal & Plenary Sessions Continued

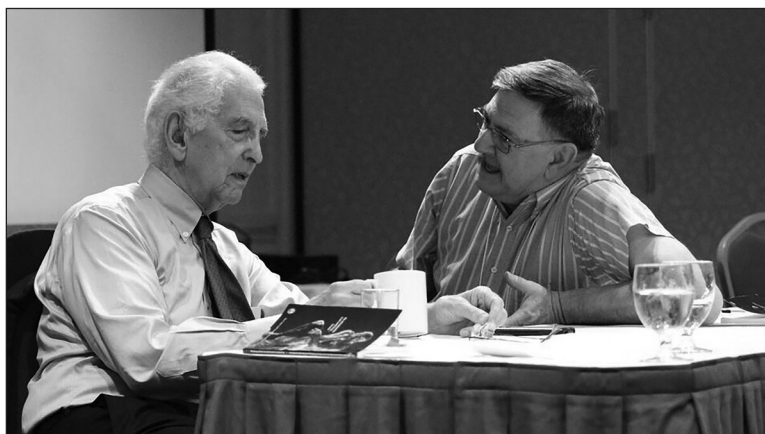
### *For K-12 Teachers:*

### **Building Classroom Communities and Student Activities that Foster Intellectual Virtues... Carmen Polka**

*Room: DA 103*

Intellectual virtues are important for learning the content of any field, or in other words, of thinking through any discipline or area of study. Students cannot learn to think well within subjects without, for example, coming to terms with what they don't know or having the intellectual courage to imagine a world far more complex than that which they take for granted. In all subjects, students need to engage through intellectual empathy with other thinkers and envision new ideas. They also need to develop the intellectual autonomy and intellectual perseverance necessary to repeatedly work through deep and challenging issues without easily giving up or simply gravitating to groupthink. They need to develop fairmindedness in order to appreciate new theories and alternative viewpoints. They need to cultivate confidence in reasoning, so that they understand they can successfully work toward understanding themselves and the world more deeply.

This session will help you develop strategies for fostering a class culture of intellectual-character development through reasonable activities and communication strategies.



Daniel Elsberg and Gerald Nosich at the 35th Annual International Conference.

## Thursday, July 24 Focal & Plenary Sessions Continued

### ***For Business, Government, & Administration:***

### **Why Skilled Leadership Requires Embodying and Cultivating Intellectual Virtues... Brian Barnes**

*Room: DA 104*

Leadership in business, government, and other organizations does not only reside with managers, supervisors, owners, executives, etc. It is present wherever any employee takes the lead on a project or an aspect thereof, wherever any colleague plays a role in redirecting team efforts (whether in a meeting or elsewhere), and so on. Thinking in leadership contexts is vital, as bad leadership misallocates the efforts not only of the thinker, but of everyone depending on his or her thinking

It is clear, then, that human leadership needs critical thinking. However, it is possible to develop seemingly self-serving thinking skills while neglecting abilities that appear to mainly benefit others. This leads to the cultivation of weak-sense critical thinking. In professional life, leaders engaged in weak-sense critical thinking create obvious problems for organizations: manipulative, sophistic thinking tends to compromise colleagues and handicap the functionality of the whole. Lesser recognized is how such behavior also undermines the leaders doing it, such as when others grow wise to their tactics and begin undermining them without their knowledge, or when resulting damage to the organization decreases the wellbeing—financial and otherwise—of everyone. In contrast, the well-rounded development of intellectual character, which entails a sense of justice and ethics, leads to strong-sense critical thinking.

If you are to cultivate strong-sense critical thinking within your organization or department, you first need a reasonable conception of it, and then a plan for bringing it to your circle of influence. This session, therefore, will enhance your understanding of the intellectual virtues and why they are essential to high-functioning organizations. It will also help you develop a plan for implementing strong-sense critical thinking within your work community.



## Thursday, July 24 Focal & Plenary Sessions Continued

### ***Advanced Session for Returning Participants:***

### **Exploring Richard Paul's Writings: Background Logic, Critical Thinking and Irrational Language Games ... Linda Elder**

*Room: DA 107*

Richard Paul frequently observed the shortcomings of how reasoning is typically approached in academia—how disconnected it often is from real-world questions, problems, and challenges, and thus how little it lends itself to addressing these phenomena when students enter the worlds of work, community, politics, etc.

In his 1985 paper written for the Second International Symposium on Informal Logic, Paul wrote,

...we cannot face situations in everyday life in the terms in which we are academically trained. The real world of human action is not compartmentalized into academic categories. The social, the psychological, the philosophical, and the economic are, in the real world, often so entwined that it makes no sense to try to explain any one dimension without explaining the roles of the others. Consequently, we cannot turn to isolated disciplines for an answer to the problem of uncritical thought in everyday life. The only "neutral" background logic we have at our critical disposal is that of natural languages themselves. Academic or technical languages, in contrast, presuppose the compartmentalizations they themselves have created.

Paul argued for the development of generalized, comprehensive critical thinking skills that transcend disciplines to synthesize knowledge across domains as required by the questions, problems, and purposes with which humans contend every day throughout the world—with, in modern times, increasingly serious stakes and ever greater urgency.

In this session, we will actively work with Richard Paul's paper, "Background Logic, Critical Thinking and Irrational Language Games," gleaning its insights and exploring them through various activities and discussions.

## Thursday, July 24 Focal & Plenary Sessions Continued

### Focal Sessions II (1:15 p.m. – 4:00 p.m.)

***For Higher Education:  
Teaching Students to  
Analyze and Assess  
Reasoning in Every Subject  
Throughout All Course  
Content... Gerald Nosich***

*Room: DA 101*

Some educators conceptualize critical thinking as a skillset that students learn through a few weeks of lessons, or perhaps through a semester-length course, and then move on from. In fact, critical thinking is a set of understandings and skills that should be continually practiced throughout all lessons and courses.

The importance of teaching all subject matter through a critical thinking lens, at all levels of education, cannot be overstated. Students who cannot critically analyze and evaluate course content are incapable of learning it in a meaningful way—i.e., of internalizing and reliably applying it in the real world.

In this session, we will help you develop strategies for teaching students to interact with your content as they must in order to truly learn it: by critically analyzing, assessing, and applying it.

session, we will consider the works of a few distinguished thinkers throughout history and discuss how these thoughts interrelate, as well as how they connect with the conceptual tools in critical thinking.





## Thursday, July 24 Focal & Plenary Sessions Continued

### **For K-12 Teachers:**

### **Approaching Your Students as Thinkers Throughout the Educational Process... Paul Banks**

*Room: DA 103*

There are a number of conceptual and pragmatic connections we must make to successfully guide our students' learning. Most school practices still cluster around or emerge from either a didactic conception of learning, or group-centered activities void of proper standards, both of which make the dominance of lower-order learning inevitable.

To get beyond this, students must understand your subject matter as a mode of thinking to be reasoned about and within using critical thinking concepts and principles. For instance, substantial improvements result from restructuring math classes so students learn to think mathematically, history classes so students learn to think historically, and so on. We must approach our disciplines not as bodies of content to be consumed, but constellations of concepts to be reasoned through and internalized. We must therefore understand our students as unique thinkers who must critically analyze, assess, synthesize, and otherwise process ideas and information so as to turn these raw materials into potent lifelong tools.

This session will help you employ practical approaches for kindling students' reasoning faculties, focusing the educational process upon their engagement rather than your "delivery" of content.



## Thursday, July 24 Focal & Plenary Sessions Continued

### ***For Business, Government, & Administration:***

#### **How Critical Thinking is Essential to Problem-Solving and Skilled Decision-Making... Brian Barnes**

*Room: DA 104*

There are multiple dimensions of effective problem-solving and decision-making. For instance, by using one powerful set of critical thinking tools—the elements of reasoning—as our guide, we can identify at least nine dimensions that represent potential problems and opportunities for thought. These dimensions do not define a procedure that can be followed mindlessly or mechanically; rather, they presuppose good judgment and sound thinking within each and across all.

To be an effective and rational decision-maker:

1. Figure out and regularly articulate your most fundamental goals, purposes, and necessities. Your decisions should help you remove obstacles and create opportunities to achieve purposes and satisfy needs.
2. Whenever possible, take problems and decisions one by one. State the situation and formulate the alternatives as clearly and precisely as you can.
3. Study the circumstances surrounding your various possible choices to make clear the kind of decision at hand. Figure out what implications follow from the possible alternatives. Differentiate decisions over which you have some control from those that seem forced on you. Concentrate your efforts on the most important ones and those which you can most influence.
4. Determine what information you need and actively seek it.
5. Carefully analyze and interpret the information you collect, drawing what reasonable inferences you can.
6. Figure out your options for action. What can you do in the short and long term? Recognize explicitly your limitations in money, time, power, etc.
7. Evaluate your options, accounting for their advantages and drawbacks.
8. Adopt a strategic approach to the decision and follow through on it. This may involve direct action or a wait-and-see approach that is carefully thought through.
9. When you act, monitor the emerging implications of your actions. Be ready to change strategies at a moment's notice if needed. Be prepared

## Thursday, July 24 Focal & Plenary Sessions Continued

to shift your approach, your analysis, your conception of the decision type, or all three as data becomes available.

In this session, we will explore these abilities and how to competently employ them for effective problem-solving and decision-making in business, government, and all areas of administration.

### ***Advanced Session for Returning Participants:***

### **Socrates' Striking Contributions to the Concept and Theory of Critical Thinking... Linda Tym**

*Room: DA 107*

Socrates' rigorous approach to inquiry laid some of the most important foundations for critical thinking ever formed, and its relationship with critical thinking can be explored from many angles. Below are merely some interconnections to consider:

1. The art of proficient questioning itself is indispensable to excellence of thought.
2. Socratic questioning can be used to pursue thinking in numerous directions for myriad purposes, including to explore complex ideas, determine what is true, reveal issues and problems, uncover assumptions, analyze concepts, differentiate knowledge from conjecture, and follow out logical implications of thought.
3. Socratic questioning is systematic, disciplined, deep, and usually focused on foundational concepts, principles, theories, issues, or problems.

Both critical thinking and Socratic questioning share a common end. Critical thinking provides the conceptual tools for understanding how the mind functions in pursuit of meaning and truth; Socratic questioning employs those tools to frame questions essential to said pursuit. When we use Socratic questioning, we have systemic ways of opening up and exploring any line of reasoning for any purpose whatsoever.

This session will focus on how Socrates' legacy demonstrates the use of questioning as a means of cultivating the disciplined mind.

## Friday, July 25 Focal Sessions

### Focal Sessions III (9:00 a.m. – 11:45 a.m.)

#### *For Higher Education:*

#### **Teaching Students to Ask Questions that Facilitate Vital Understandings in Your Course... Gerald Nosich**

*Room: DA 101*

The quality of our students' learning is determined by the quality of their thinking. The quality of their thinking, in turn, is largely determined by the quality of their questions, for questions are the engine, the driving force behind thinking. Without questions, students have nothing to think about. Without essential questions, they often fail to focus on the significant and substantive.

When students ask essential questions while reading, writing, speaking, and listening, they engage with what is relevant and necessary to course content. They recognize what is at the heart of the matter; their thinking is grounded and disciplined; they are ready to learn and able to intellectually find their way about. Sadly, few students are adept at the art of asking essential questions. Most have never thought about why some questions are crucial and others peripheral. Their questions, when asked at all, are haphazard and scattered.

This session will provide practical ways of teaching students to ask essential questions and thereby equip them to start the process of internalizing vital course knowledge.

#### *For K-12 Education:*

#### **Teaching Students to Study Effectively and Learn Deeply... Carmen Polka**

*Room: DA 103*

To study well and learn any subject is to learn how to think with discipline within that subject, to think within its logic, to:

1. raise vital questions and problems within it, formulating them clearly and precisely;
2. gather and assess information, using ideas to interpret that information insightfully;
3. come to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
4. adopt the point of view of the discipline, recognizing and assessing, as need be, its assumptions, implications, and practical consequences;

## Friday, July 25 Focal Sessions continued

5. communicate effectively with others using the language of the discipline and that of educated public discourse; and
6. relate what one is learning within a subject to other subjects, and to what is significant in human life.

To become a skilled learner is to become a self-directed, self-disciplined, self-monitored, and self-corrective thinker who has given assent to rigorous standards of thought and mindful command of their use. Skilled study of a discipline requires that one respect the power of it, as well as its and one's own limitations.

This session offers strategies to help students go beyond rote memorization so they begin to actively engage with class content.



***For Business, Government, & Administration:***  
**Asking Questions that Lead to Effective**  
**Choices, Efficient Procedures, and Powerful**  
**Insights in Your Professional Life... Brian Barnes**

*Room: DA 104*

It is not possible to be a good thinker and a poor questioner. Questions define tasks and projects, express problems, and delineate issues. They drive thinking forward. Answers, on the other hand, often bring an end to thought—and if those answers are to irrelevant questions, trivial questions, unclear questions, vague questions, etc., they often function as liabilities rather than solutions. Superficial questions equal superficial understandings, unclear questions equal unclear understandings, and so on. Even more dangerous at times is a mind generating no questions at all, but merely following procedures that may be wholly unfit for the present context.

In this session, we focus on practical strategies for reliably generating effective questions in our work, and for using the art of inquiry to reach higher levels of effectiveness within one's profession.

## Friday, July 25 Focal Sessions continued

### How Profound Ideas Link Together and How to Internalize Them... Linda Tym

*Room: DA 107*

Profound ideas can be used to explain or think about a large array of questions, problems, information, ideas, and/or situations. Assimilating them helps us to think and learn in ways that facilitate deeper understandings.

Like all ideas, profound ideas and their functions within the human mind are more complex than we tend to recognize. On the one hand, they enable us to differentiate the various aspects of our experience from each other; on the other, they are not truly discrete. Rather, profound ideas overlap and interrelate in highly significant ways, together forming the assemblage of meanings that we construct about our world and thereby telling us (accurately or inaccurately, reasonably or unreasonably) the way things are, could be, and ought to be.

For instance, a fundamental concept in ecology is that of an “ecosystem,” defined as a group of living things dependent on one another in a particular habitat. Another is “ecological succession”—a pattern of change which occurs within every ecosystem, including the birth, development, death, and replacement of ecological communities. Those communities can be grouped into larger units called “biomes,” regions throughout the world classified according to physical features such as temperature, rainfall, and types of vegetation. These are profound ideas that should be seen not as a bulleted list, but as forming a dynamic whole, each helping us to better understand the others.

In this session, we will consider the interconnectedness of powerful ideas and how to take greater command of them for use in learning and everyday life.



## Friday, July 25 Focal Sessions continued

### Focal Sessions IV (1:15 p.m. – 4:00 p.m.)

#### *For All Educators:*

#### **Teaching Students to Internalize the Most Integral and Empowering Concepts in Your Fields of Study... Dr. Gerald Nosich**

*Room: DA 101*

Concepts are ideas used in thinking. They enable us, and our students, to group aspects of experience into different categories, classes, or divisions. They shape the basis for how things are labeled within the mind. They represent the mental map of reality which is charted and revised throughout the lifetime of the thinker; through their concepts, our students define situations, events, relationships, and all other objects of their experience. Each of their decisions depends on how they conceptualize things, and all subjects or disciplines are defined by their most integral concepts.

Integral and empowering concepts exist within every field and discipline. When well-grasped, they enable students far greater command over our course content as a whole. Students then begin to see our field or discipline not as a list of notions and data points to be memorized and repeated, but as a mode of thinking—a powerful lens through which to examine reality and our experiences within it, revealing insights which move us toward more effective and meaningful ways of thinking, learning, and living.

In this session, you will work toward identifying integral and empowering concepts in your field or discipline, toward explaining their role in thinking therein, and toward forming ways to help students take command of them.

#### **How the Human Mind is Prone to Self-Handicapping Through Egocentric Forces... Carmen Polka**

*Room: DA 103*

Egocentric tendencies are natural within humans. While they can cause us to overestimate our abilities, they can also have the opposite effect, thereby undermining our likelihood to achieve that of which we are capable. For instance, people can and do tell themselves without good evidence that they are unable to perform beyond a certain level; they can and do allow assessments improperly made by others, or that they themselves create by drawing irrational lessons from past experiences, to impede them from reaching their potential.

It is essential that we command the stories we tell ourselves about ourselves, about our pasts, and about our abilities to achieve within our abilities. In part, realizing one's capacities requires 1) to see ourselves as capable of realizing our goals within reason, and 2) to repel negative, destructive tendencies and influences.

This session will discuss how egocentrism can act as a barrier to self-actualization, and will provide ways of identifying and countering manifestations of this problem.

### ***For All Educators:***

### **Critical Reading: A Prerequisite for Deep Learning in Any Subject and How to Teach It... Paul Banks**

*Room: DA 104*

Reading is, among other things, the translation of words into meaning. In a piece of writing, the author has previously translated ideas and experiences into words, which we must take and re-translate into the author's original intent using our own ideas and experiences as aids. Accurately translating words into intended meanings is an analytic, evaluative, and creative set of acts, and each of these requires critical thinking in order to be done competently. Unfortunately, because few students (and, therefore, few educators) acquire the explicit tools and concepts of critical thinking, similarly few are skilled at such translation. Few can accurately mirror the meaning that an author intended, instead projecting their own meanings onto a text; in other words, through a lack of critical thinking, most readers unintentionally distort or violate the original meanings of the authors they read.

Reading is a form intellectual work, and intellectual work requires both understanding what such work entails, and a willingness to persevere through its difficulties. In this session, you will be introduced to five levels of close reading and will work through one or two of them closely as "students." Accordingly, you will experience the process of critically reading significant texts so as to better bring it into your classrooms, and into your students' thinking, on a typical day.





## Friday, July 25 Focal Sessions continued

### ***Advanced Session for Returning Participants:***

### **Seeking the Limits of Your Critical Thinking Knowledge... Linda Elder**

*Room: DA 107*

Intellectual humility is awareness of the limits of one's knowledge, including sensitivity to the kinds of circumstances in which one's native egocentrism and sociocentrism are likely to function self-deceptively. It entails mindfulness of the biases and prejudices within, and the limitations of, one's viewpoint. It implies a lack of intellectual pretentiousness, boastfulness, or conceit, combined with significant insight into the strengths and weaknesses of the logical foundations of one's beliefs.

Oftentimes, the more we know about a given field or discipline, the more difficult it becomes to exercise intellectual humility within it. Critical thinking is no exception; recognizing the boundaries of our comprehension of critical thinking, and the intellectual vices to which we are most prone, allows us to more efficiently advance as reasoners. It facilitates the articulation of useful questions, the examination of dubious assumptions, the clarification of ambiguous concepts, and so on.

This session will explore ways of reflecting on your critical thinking knowledge and highlighting its limitations, so as to illuminate where your future efforts toward advancement might best be directed.



## Saturday, July 26 Focal Sessions

### Focal Sessions V (2:35 p.m. – 4:00 p.m.)

#### *For Higher Education:*

#### **Classroom Strategies for Improving Student Learning on a Typical Day...**

**Gerald Nosich**

*Room: DA 101*

In this session, we will focus on strategies for engaging students' intellects as a means of empowering them to internalize course content. These strategies are powerful and useful, because each is a way to routinely engage students in thinking about what they are trying to learn as they learn it. Many of the strategies offer students effectual methods for appropriately analyzing, assessing, and applying the ideas that they encounter in the schooling process. Each strategy represents a shift of responsibility for learning from teacher to student; each suggests at least one way of helping your students learn to do the often hard work of learning.

#### **Why Critical Thinking Is in Danger and What This May Mean for Human Societies... Linda Elder**

*Room: DA 107*

Three disturbing facts impede modern education:

- Most educators at all levels lack a substantive concept of critical thinking.
- Most educators don't realize this, but instead assume that they sufficiently understand critical thinking and are teaching it to students.
- Lecture, rote memorization, trivial exercises, and largely ineffective short-term study habits are still the norm in instruction.

Taken together, these realities are torpedoing essential, long-term institutional change. When faculty have a vague or mistaken notion of critical thinking, or they reduce it to a single-discipline model, students fail to learn the concepts and principles necessary for making essential connections within and across subjects—connections that give crucial order and substance to teaching and learning.

In some ways, these problems are worsening, in part because the term “critical thinking” is now more popular than ever. This has partially led to a backslide to the morass of the 1970s, when the phrase was seemingly up for grabs, appearing to mean whatever a given scholar, department, school of thought, or business

## Saturday, July 26 Focal Sessions continued

thinking is; while most call it important, precious few can adequately define it or explain how it can be done or taught.

This has had predictable consequences for human societies at large: the average person has little to no idea how to analyze, assess, and systematically improve thinking. Because most people lack these skills, they simply do not value reasoning, despite its dominant role in the quality of their lives and of human societies. Accordingly, most personnel in business, government, and military bodies lack a robust concept of critical thinking as well. This has led, in a time when humanity faces its greatest-ever existential challenges, to thinking ranging mostly from insufficient to calamitous—including among persons in the most important decision-making positions on earth.

This problem can be solved. In fact, it already would be, had a robust, practical, universally-applicable conception of critical thinking—framed in natural language—been adopted throughout educational curricula when the field of critical thinking studies began to take shape decades ago, only to again be buried under a mishmash of alternative approaches that are variously partial, cryptic, or counterfeit.

This session will discuss the state of critical thinking today, its implications for human societies, and how we can begin progressing in a better direction.

### ***For Higher Education Administrators:***

#### **Bringing Critical Thinking Across the Curriculum at Your Institution... Patty Payette**

*Room: DA 104*

Critical thinking, deeply understood, provides a rich set of concepts that enable us to think our way through any subject or discipline, as well as through any problem or issue. With a substantive conception of critical thinking clearly in mind, we start to recognize the pressing need for staff development that fosters critical thinking within and across the curriculum. As we come to understand such a conception, we can follow out its implications in designing a professional development program. By means of it, we begin seeing 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 evaluating students, faculty, and the institution as a whole in terms of critical thinking abilities and traits, within and across disciplines. We understand, in other words, that robust critical thinking should be the guiding

## Saturday, July 26 Focal Sessions

force for all our educational efforts.

This session focuses on the importance of placing critical thinking foundations at the core of teaching and learning at all levels of the institution, and it presents a professional development model that can provide the vehicle for deep change throughout the organization.

### ***For K-12 Teachers:***

#### **Active and Cooperative Learning that Adheres to Critical Thinking Standards...**

**Paul Banks**

*Room: DA 103*



Often students' failure to do well, to apply what they have "learned," to remember in the Fall what they learned in the Spring, results from naïve misconceptions about what real learning requires. Above all, learning requires thinking—critical thinking. To learn, one must continually ask, "What does this really mean? How do we know? If it is true, what else would be true?" At the heart of our approach is the conviction that, ultimately, learners must answer these questions for themselves in order to learn, to know, to truly understand. Answers you provide cannot fully sink in unless students' minds are ready to process them.

Although bringing critical thinking into the classroom ultimately requires serious, long-term development, many simple, straightforward, yet powerful strategies can be implemented immediately. Many enable you to take advantage of what students already know and what they can figure out for themselves, and many involve students' working together. Students learning in collaboration can correct each other's misunderstandings and accelerate each other's progress. This enables them to become responsible for more of their own, and one another's, learning.

These strategies are widely applicable; most can be fruitfully applied to any subject, any topic. Most can become standard practice—techniques you continually use. At the heart of these methods is a realistic conception of what it takes for someone to learn something.

This session will provide ways to begin the process of enabling students to think their way through your class content, to learn how to use what they learn, and use the power of their own minds to figure things out.

## Sunday, July 27 Focal & Plenary Sessions

### Focal Sessions VI (9:00 a.m. – 11:45 a.m.)

#### *For Higher Education:*

#### **Teaching Students to Write Substantive Papers Using the Tools of Critical Thinking... Gerald Nosich**

*Room: DA 101*

Educated persons skillfully, routinely engage in substantive writing. Substantive writing consists of focusing on a subject worth writing about and saying something worth saying about it. It also enhances our reading: whenever we read to acquire knowledge, we should write to take ownership of what we are reading. Furthermore, just as we must write to gain an initial understanding of a subject's primary ideas, so also must we write to begin thinking within the subject as a whole and making connections between ideas within and beyond it.

Quite remarkably, many students have never written in a substantive way. Instead, they have developed the habit of getting by with superficial and impressionistic writing which only obscures the purpose of writing itself. The result is that they are blind to the ways in which writing can be used to enrich their learning and lives.

This session will explore ways of developing students' abilities in substantive writing, through the tools of critical thinking, as a means for fulfilling, deep learning and communication.

#### **How Group Think, Prejudice, and Conformity are Tremendous Barriers to Criticality... Linda Tym**

*Room: DA 107*

Every group to which we belong – nation, culture, profession, religion, family, peer group, etc.—has some social definition of itself, as well as some oft-unspoken “rules” that guide the behavior of its members. In other words, each group to which we belong imposes some level of conformity on us as a condition of acceptance. This includes sets of beliefs (of varied degrees of rationality), sets of acceptable behaviors (reasonable and unreasonable to diverse extents), and sets of taboos that entail consequences when broken.

For most people, conformity to group restrictions is largely automatic and unreflective. They internalize group norms and prejudices, take on group identities, and act as they are expected with little or no sense that what they are doing might be reasonably questioned. They function within social groups as unreflective participants in a range of beliefs, attitudes, and behaviors. This

## Sunday, July 27 Focal & Plenary Sessions Continued

creates myriad intellectual blind spots which act in thinking as faulty assumptions, illogical conclusions, misinformation, and so forth.

This session will focus on how sociocentric thinking stands as a barrier to the development of critical thinking, and how we can recognize and intervene in our own sociocentric tendencies.

### ***For K-12 Educators:***

#### **Writing for Growth and Development... Carmen Polka**

*Room: DA 103*

Writing is key to the acquisition of content. At present, however, students are poor writers – not because they are incapable of learning to write well, but because they have never been taught the foundations of substantive writing. They lack intellectual discipline as well as strategies for improving their writing. This is true because teachers on the one hand often lack clear theory of the relationship between writing and learning and, on the other, are concerned with the time involved in grading written work.

If we understand the most basic concepts in critical thinking, we can provide the grounds for solving both problems: 1) theory that links substantive writing and thinking with the acquisition of knowledge, and, 2) awareness of how to design writing assignments that do not require one-on-one instructor-student feedback.

The development of writing abilities, as well as all other intellectual abilities, occurs only through sound theory and routine practice. When students understand the relationship between learning and writing, and are engaged in routine writing practice using the tools of critical thinking, they are able to learn content at progressively deeper levels and improve their ability to communicate important ideas.

This session will provide techniques that enhance students' learning and foster their abilities to communicate clearly and logically what knowledge they are acquiring in your class.



## Sunday, July 27 Focal & Plenary Sessions Continued

### ***For All Educators:***

### **Helping Your Students Think Through Social and Political Issues with Discipline and Empathy...**

**Paul Banks**

*Room: DA 104*



Most students have very little experience of reasoning within opposing points of view, or even of reasoning at all. In today's typically didactic classes, instructors engage in inculcating information; students then come away with the impression that knowledge can be obtained without having to consider more than one point of view, without having to identify or assess evidence, question assumptions, trace implications, or consider objections.

The result is students with no real sense of what the process of gaining knowledge involves, who make absolutistic judgments without recognizing that they think from a point of view among potentially infinite others, with nothing more than a jumble of information and beliefs, and with little idea of how to reason one's way to knowledge and better judgment. As a result, students uncritically internalize concepts of what they, others, and things are like—e.g., of what Americans are like, of what Indians are like, of what business-people, liberals, conservatives, immigrants, capitalism, socialism, Christianity, atheism, corporations, governments, etc. are like. They then ego-identify with their conceptions, spontaneously using them as guides in their day-to-day decision making.

Over time, these students are laden with mountains of ill-founded information and ideas, as well as a method of constructing world views nearly devoid of appropriate analytical tools and intellectual standards. The resulting dysfunction at the individual and societal level is obvious throughout the world.

Students need assignments in multilogical issues to break out of their uncritical absolutism. They need to discover opposing points of view in non-threatening situations. They need to put their ideas into words, advance conclusions, and justify them. They need to discover their own assumptions and inconsistencies, as well as those of others. They do this best when they learn how to role-play the thinking of others, advance conclusions other than their own, and construct reasons to support them. Students need to do this for the multilogical issues—issues involving conflicting points of view, interpretations, and conclusions—which tend to form the most contentious political and social questions of the day. But they also need to do this to bring discipline to the

## Sunday, July 27 Focal & Plenary Sessions Continued

process of thinking through monological questions.

This session will offer practice in reasoning through social and political issues as a model which can foster intellectual empathy and discipline, and which can be brought into the classroom.

### Plenary Session (1:15 p.m. – 2:45 p.m.)

#### Critical Thinking Therapy: How Critical Thinking Can Lead Us Out of Toxic Lifestyles... Linda Elder & Gerald Nosich

*Room: DA 103*

Critical Thinking Therapy assumes that mental health depends, among other things, on reasonable thinking. One cannot be emotionally healthy while being an unreasonable person, and reasonability requires critical thinking. Unfortunately, mental health professionals generally misunderstand critical thinking and its vital importance to effective mental health therapies.

It isn't that mental health professionals never think critically; in fact, the best therapeutic approaches to mental health have a direct relationship with critical thinking. However, clinicians do not always utilize the best mental health therapies, because they don't always know how to choose among them. In other words, they are frequently unclear as to the standards they should use in adopting therapies and applying them to their clients.

Critical Thinking Therapy introduces a substantive theory of critical thinking to the field of mental health therapy. It details a broad, integrated set of critical thinking tools for use in self-therapy and professional therapy. It is for individuals seeking a more enlightened, more fulfilled, less fearful, and less self-defeating orientation to the world. It is also for those not reaching their potential who seek a self-actualizing frame of mind.

Thus far, only some of critical thinking's many tools have entered the world of mental health, mainly through cognitive behavioral therapies. Critical Thinking Therapy vastly broadens and deepens the critical thinking concepts and principles explicitly available to therapists, and is therefore recommended for their use with clients, as well as for clients and individuals working alone.

This session will explore how the concepts and principles of critical thinking can serve as foundations for improved mental health and self-actualization, both in the context of professional therapy and for anyone concerned with their own wellness and ability to achieve.



## Closing Session (3:00 p.m. – 4:00 p.m.)

### Detailing Your Own Plans for Moving Forward Using Your New Critical Thinking Understandings... All Fellows and Scholars

*Room: DA 103*

In this session, we will reflect on the conference as a whole and what we've learned together. We will furthermore discuss ways to continue applying and developing our critical thinking skills and traits into the future.



## Concurrent Sessions Program

### Saturday, July 26

Concurrent Sessions are presented by attendees who are attempting to foster critical thinking in teaching, learning, work, or any other aspect of life, or who wish to share research related to critical thinking. Choose one Concurrent Session to attend in each time slot.

#### Schedule Overview:

8:30 a.m. – 9:30 a.m.	Concurrent Sessions I
9:40 a.m. – 10:40 a.m.	Concurrent Sessions II
10:50 a.m. – 11:50 a.m.	Concurrent Sessions III

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### Concurrent Sessions I

(8:30 a.m. – 9:30 a.m.)

#### A Low Dose Rate Equals Big Results in Dental Radiology Education

Lavina Myers

Associate Professor

University of Louisville – School of Dentistry

Louisville, Kentucky

*Room: DA 101*

An integral part of the dental hygiene curriculum is dental radiography. Within our program, dental hygiene students take five Radiology/Radiography courses. As the course director I have the unique opportunity to work with students from the time they are novice learners until they become licensed practitioners. Often students are overwhelmed with the content in dental radiology. In addition to the wealth of foundational knowledge they need to master, students must also be proficient in clinical acquisition and interpretation of dental radiographs. Using the instructional practice of scaffolding and questions outlined in the Paul-Elder Critical Thinking Framework, students develop their critical thinking and clinical reasoning skills, and apply them directly to patient care.

This presentation or roundtable discussion will outline how I use the Paul-Elder model to promote critical thinking in dental radiology course and with direct patient care.

## Concurrent Sessions Continued

### Using the Foundation for Critical Thinking Framework to Connect Research Policy and Practice in Education

**Sunshine Moss**

Executive Director

Intersection Education

Gainesville, Florida

*Room: DA 108*

In this compelling presentation, Dr. Sunshine Moss of Intersection Education describes how The Foundation for Critical Thinking model has provided a common language for addressing complex educational problems in literacy intervention, teacher preparation, and educational improvement. She provides rich examples of how the model has been used to develop curriculum and programs, instruct children, cultivate teachers, and support families. Concepts are illustrated with samples of student and teacher work and curriculum developed by the presenter for use with other evidence-based intensive intervention tools for teaching adolescents with learning disabilities.

In an innovative series of intensive literacy intervention programs for children with oral and written learning disabilities, critical reasoning standards are explicitly and systematically taught and practiced to mastery to develop the metacognitive skills needed to become proficient readers, writers, and thinkers.

In teacher development, the critical thinking framework provides a precise language for describing the parts of thinking, which has played a vital role in developing teacher knowledge and ability to use precise language to guide student thinking during instruction, analyze student learning profiles, design interventions, evaluate their own effectiveness, and discuss complex educational problems with precision and clarity.

The elements and standards for reasoning assist parents with children with disabilities in organizing information and discussions about their children's needs. The standards for reasoning are used to support them in thinking through difficult educational decisions and in shaping and directing vital discussions about their children's needs with educators and specialists in the school and community.

Throughout all programming, the Intellectual traits are modeled and described to support children, educators, and families in their resolve to use critical thinking to address complex educational challenges.

## Concurrent Sessions Continued

### Critical Thinking and the Management of Kinetic Actions in Nigerian Military Operations

Ogeregbe Michael Oriewu

Sergeant

Nigerian Defence Academy

Kaduna, Nigeria

*Room: DA 107*

The Nigerian military has been engaged in various kinetic operations to counter security threats, including terrorism, insurgency, militancy, and banditry. Such kinetic actions are not limited to aerial bombardments which the Nigerian Air Force has conducted against insurgent groups, such as Boko Haram, in the north-east region of Nigeria, which are aimed to weaken the insurgents' capabilities and destroy their hideouts. Ground operations by the Nigerian Army are also conducted for raids and ambushes, to combat insurgent groups, and to capture or kill insurgent leaders and disrupt their supply chains. Naval patrols are conducted by the Nigerian Navy in the Lake Chad region to prevent insurgent groups from using the waterways to launch attacks. Additionally, artillery attacks by the Nigerian military are used to attack the target insurgent positions and destroy their equipment.

However, the effectiveness of these operations has been hampered by inadequate critical thinking and decision-making skills among military personnel. This is based on the fact that lack of critical analysis and unevaluated information might have led to unjust killing, massacre, and destruction of life and property of the vulnerable innocent civilians in Nigeria. Several times Amnesty International has accused the Nigerian military of gross killing of civilians in the process of carrying out military kinetic operations. This study examines the relationship between critical thinking and the management of kinetic actions in Nigerian military operations. A mixed-methods approach was employed, combining quantitative and qualitative data collection and analysis methods. The findings reveal that critical thinking is essential for effective decision-making and problem-solving in kinetic operations. The study recommends that the Nigerian military should prioritize critical thinking training and development programs for its personnel to enhance their ability to effectively manage kinetic actions. The study contributes to the existing body of knowledge on critical thinking and military operations, providing valuable insights for military strategists, policymakers, and scholars.

## Concurrent Sessions Continued

### Critical Thinking and Global Competencies: Using Critical Thinking to Bring Ideas into Strategy

Susannah Johnson

CEO

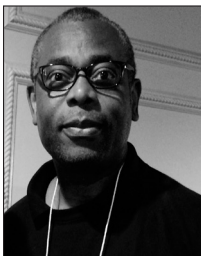
Individualized Realized|

Honolulu, Hawaii

*Room: DA 103*

In consideration of global competencies and the UN's Sustainable Development goals as a lens, in this session we will look in brief at the 3+ lenses (OECD, Asia Society, Project Zero) – Investigate the World, Recognize Perspectives, Communicate Ideas, and Take Action. We will then merge critical thinking and the aim of “global essential skills.” Key concepts and purposes:

- Appreciation of culture.
- Evaluation of information.
- Cross-cultural communication skills.
- Perspective taking skills.
- Intelligent humility.
- Divergent thinking.
- Technological literacy.
- Using questions from the Elements of Thought, Intellectual Standards, and Intellectual Traits, we will examine the above global competencies for shared concepts, especially diving into definitions.
- With the above essential skills, we will comparatively consider how critical thinking practice feeds these global needs.
- We will overlay these global competencies working primarily through the Intellectual Traits to set key questions for productive strategic thinking as we aim at a better now-and-future global citizenry.



## Concurrent Sessions Continued

### Improving Student Critical Thinking Through Direct Instruction in Rhetorical Analysis

**Lauren McGuire**

English Professor

Northwest Arkansas Community College

Bentonville, Arkansas

*Room: DA 109*

Cultivating critical thinking, intellectual growth, and lifelong learning opportunities that provide students with the knowledge and skills necessary for success in life should be 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 in a variety of academic disciplines. Instructional strategies that advance critical thinking pedagogy on a consistent basis could positively impact the range and quality of student critical thinking skills' performance.

Purposeful implementation of the Elements of Thought and Intellectual Standards, and of Socratic questioning, could strengthen students' perceptions of critical thinking and of their own critical thinking abilities. Educators can cultivate Intellectual Traits by encouraging students to develop those skills necessary for clearly and logically evaluating the credibility and the reliability of rhetoric. Assuming that an argument can be any text – written, spoken, aural, or visual—that expresses a point of view, it is vitally important for educators to challenge students to consider new perspectives on topics they may feel they already understand, and to provide practice for analyzing the sorts of arguments they will encounter in their various courses. Implementing the Elements of Thought and Intellectual Standards, as well as Socratic questioning, through direct instruction in rhetorical analysis could encourage students to detect and evaluate the assumptions, ego-centrism, and socio-centrism in the rhetoric they are exposed to in literature, in the media, and in their own writing. Consistent application of Intellectual Standards provides students with the tools necessary for the acquisition of intellectual humility as they approach the complexities of life with clarity, accuracy, and precision; explore multiple perspectives of difficult problems; and learn to sympathetically acknowledge the viewpoints of others with breadth and clarity.

This session will focus primarily on designing instruction which integrates direct instruction in rhetorical analysis. Emphasis will be placed

## Concurrent Sessions Continued

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.



## Concurrent Sessions Continued

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### Concurrent Sessions II

(9:40 a.m. – 10:40 a.m.)

#### My Ongoing Journey Toward Fair-Minded Critical Thinking: Insights and Transformations

**Nadine Ezzeddine**

Senior Instructor

Dalhousie University School of Nursing  
Halifax, Nova Scotia, Canada

*Room: DA 107*

In this presentation, I will highlight key milestones in my ongoing journey toward becoming a fairminded critical thinker and the transformative impact I have experienced so far.



I began exploring critical thinking theories because I believed my students needed them. I grappled with several critical thinking frameworks—both general and discipline-specific (nursing, in my case)—until I found myself particularly drawn to the Paul & Elder Critical Thinking Framework. In this presentation, I will justify my choice of the Paul & Elder Critical Thinking Framework over other theories. I will also share my ongoing learning journey with the Foundation for Critical Thinking community and provide examples of the transformative impact this framework has had on both my personal and professional life.

Regarding personal impact, I will focus on how the framework's tools have helped me uncover my unconscious assumptions and biases, recognize when egocentrism impedes my reasoning, and actively question (and hopefully identify and address) such barriers. I will share examples of how these insights have transformed my decisions, actions, and, most importantly, my mental well-being.

From a professional perspective as a university instructor, I will discuss how applying this framework has transformed my course delivery. For example, I have incorporated the concept of "the logic of content" to enhance both my teaching approach and my students' learning experience. I will also highlight the outcomes in terms of student learning, academic success, content retention, and the application of knowledge in various settings.



## Concurrent Sessions Continued

### Exploring the Experience of a High School Teacher Implementing the Paul & Elder Critical Thinking Model in Teaching English as a Foreign Language

Drissia Ounnich

Instructor & Researcher

Moulay Ismail University - School of Arts and Humanities

Meknes, Morocco

*Room: DA 109*

Given the current shift in the Moroccan educational system towards valuing the teaching of transversal skills, critical thinking as a crucial competence has secured a prominent place in the English language teaching curriculum. The incorporation of the Paul & Elder critical thinking model in Moroccan EFL textbooks reflects a growing recognition that education in this faculty is the only education of which it can be truly said that it makes good language learners as well as fair-minded citizens. Thus, training students to think critically is expected to prepare them not only for the demands of the workforce but for the challenges of the 21st century as well. Therefore, the purpose of this session is to provide valuable insights into the practical application of the Paul & Elder framework in an EFL classroom by highlighting real-world challenges and effective adaptive strategies that enhance learning critical thinking in its strong sense so as to achieve intellectual virtues and moral integrity.



## Concurrent Sessions Continued

### **The Dynamics of Critical Thinking in a Multimedia Presentation with Intellectual Humor**

**Danuta Furszpaniak**

Lecturer

Adam Mickiewicz University

Poznań, Poland

*Room: DA 104*

A multimedia presentation with intellectual humor has complex content created on a way of reasoning in cooperation with the will and emotions. On the basis of experience gained during my academic course “Professional Presentations with Intentional Highbrow Humour,” I’ll show the logic of a presentation revealed by the Elements of Thought. Then I’ll progress to discussion of Intellectual Standards used by students and the development of Intellectual Virtues in connection with their work on presentations. Ethical issues related to the presenter’s and the receiver’s egocentrism and sociocentrism should lead to the point of how to be a fairminded presenter who achieves the aim of their job, and how to be a critical, unmanipulated receiver.

### **The Beauty of the Paul-Elder Model for Achieving Aspirational Organizational Objectives by Developing Critically Thinking Collaborators**

**Paul Consalvi**

Professor

University of Tokyo – Graduate School of Frontier Sciences

Tokyo, Japan

*Room: DA 101*

In today's complex and interconnected world, the value of cultivating critical thinking goes beyond personal or academic growth—it's fundamental to creating empowered citizens who can drive meaningful change in their communities and workplaces. This session explores how the Paul-Elder model of critical thinking serves as a powerful framework for developing "Critically Thinking Collaborators," individuals who are equipped not only to make sound decisions but to lead with integrity and empathy in diverse, team-oriented settings. Participants will examine how adopting Intellectual Traits like courage, perseverance, and humility can foster a collaborative culture that consistently generates innovative and ethical initiatives as part of bigger aspirational organizational goals. This session will invite leaders, educators, and

## Concurrent Sessions Continued

organizational members to consider how embedding critical thinking across teams can result in the kind of deep, systemic improvements that resonate within and beyond the school and workplace, addressing both present needs and laying the foundation for future societal well-being.

### Assessing Critical Thinking in Community College: Supports, Challenges, and Opportunities

**David Campbell**

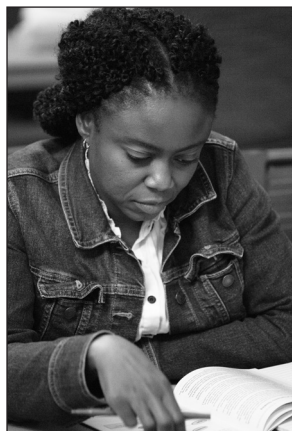
Institutional Effectiveness Specialist  
Jefferson Community and Technical College  
Louisville, Kentucky

**Lauren Pellegrino**

Assistant Professor  
Academic Program Coordinator, Business  
Jefferson Community and Technical College  
Louisville, Kentucky

**Kaya Muller**

Professor  
Natural Sciences  
Jefferson Community and Technical College  
Louisville, Kentucky



*Room: DA 103*

As the starting point for nearly 50% of individuals seeking post-secondary education, community colleges have been the entry point for workforce and university transfer-intending students—many of whom are first-generation, underrepresented minorities, and low income—seeking to earn valuable credentials and develop high-demand competencies that will serve them across their education and career journeys.

For eight years, Jefferson Community and Technical College (JCTC) has implemented the General Education Assessment (GEA) as part of its SACSCOC (accreditation) requirement. The GEA calls for a unique focus on course assignment, project design, and assessment using the American Association of Colleges & Universities' (AAC&U) VALUE Rubric to evaluate 16 knowledge areas including intercultural competence, teamwork, quantitative literacy, and critical thinking—with a minimum evaluation of a single assignment/assessment in a single course.

## Concurrent Sessions Continued

While many faculty opt for more easily measurable components of the GEA (quantitative literacy, for example), we are finding that faculty are more intentionally choosing critical thinking as a point of focus, giving targeted attention to the development and measurement of assignments, projects, and assessments using the VALUE rubric. Our latest outcomes analysis shows improved student outcomes in the area of critical thinking among faculty using this tool, particularly among faculty who have been using it for several years. Given the increased interest in the critical-thinking component of the GEA among faculty, combined with more availability of professional development in critical thinking pedagogy and elevated confidence among faculty to do this work, we posit that faculty participation in a comprehensive analysis of critical thinking capacity-building through the GEA process will continue to increase. Yet, the issue of scaling this level of evaluation is tenuous as full-time, two-year faculty often have anywhere from 100-250 students per semester across 5-10 course sections.

During this interactive presentation, participants will hear from institutional research and effectiveness experts and faculty members about how JCTC has leveraged the GEA/SACSCOC component of critical thinking and the VALUE rubric to design, implement, and measure critical thinking skills development through the required constructs of students' explanations of issues, evidence-based positions, hypotheses, and implications. Faculty will share assignment and assessment techniques, review opportunities and challenges in using the VALUE rubric to guide and scale their efforts, and describe the lessons they have learned in iteratively fostering growth in critical thinking skills and applications among students.



## Concurrent Sessions Continued

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### Concurrent Sessions III

(10:50 a.m. – 11:50 a.m.)

#### Embodying Critical Thinking in Leadership Practice

Sara Lynne Willett

Assistant Professor

University of Wisconsin – Stout

Menomonie, Wisconsin

*Room: DA 103*



**Purpose:** To provide examples of critical thinking in action and encourage reflection on how adopting Intellectual Traits (e.g., intellectual humility, intellectual courage, intellectual empathy, and intellectual perseverance) fosters personal development and potentially transforms the quality of life (fulfillment, self-actualization, relationships, etc.). This session demonstrates how one can begin the journey by focusing on one essential area of critical thinking, such as Intellectual Virtues, and then gradually and increasingly interrelating that area to other core critical thinking concepts, such as Intellectual Standards, the Elements of Reasoning, and the barriers to criticality. (This is an important example of the interrelatedness of the framework; it is virtually impossible to embody critical thinking without using the entire framework).

A personal example from my industry career will be provided, describing a transition from practicing “traditional” labor-management techniques in organized labor settings to modeling critical thinking in my own practice and encouraging critical thinking in others. These examples will be simple and straightforward, using elegant examples of practicing Intellectual Virtues, demonstrating how I moved from weak-sense critical thinking to strong-sense critical thinking on this journey, e.g., letting go of the need to “be right” (and using critical thinking in the weak sense) versus employing critical thinking’s full power for the benefit of self and others.

## Concurrent Sessions Continued

### Using an Innovative Video Assignment to Jumpstart Critical Thinking in an Online Capstone Course

Edna Ross

University of Louisville  
Professor of Psychology  
Louisville, Kentucky

*Room: DA 108*

This Concurrent Session will illustrate a method by which participants can introduce critical thinking in an authentic and engaging way in an online class. The presenter will share how she uses a humorous video about her CV in an online senior psychology class as their first class assignment. The assignment requires students to use the Paulian critical thinking framework to ‘go around the wheel’ to identify the question at issue. Students rarely identify the real question at issue and focus on the superficial, emotional components of the situation instead. The presenter will share how to use this type of assignment to engage students in a real-world, relevant context to normalize using critical



## Concurrent Sessions Continued

### More Than Meaning: Using Poetry to Deepen Critical Thinking

Norman Minnick

Author

Senior Associate Faculty in English

Marian University

Indianapolis, Indiana

Room: DA107

Encouraging students to think critically about poetry requires more than surface-level comprehension; it demands deep engagement with both explicit and implicit meanings. By analyzing, evaluating, and interpreting poetic texts, students develop essential critical thinking skills that extend beyond literature into other academic disciplines and real-world contexts. However, this level of engagement does not happen automatically—it requires intentional scaffolding, thoughtful questioning, and ample practice. One particularly effective yet often overlooked method for fostering this depth of analysis is through the memorization and recitation of poetry.

This session will provide practical strategies for using poetry as a tool for deep critical engagement. Drawing on my experience attending a critical thinking symposium with Stephen Brookfield at Indiana University, I will share an interactive method I developed: an arrow spinner board based on The Foundation for Critical Thinking's "Elements of Thought" chart. Students use this tool to apply concepts such as purpose, interpretations and inferences, and implications and consequences to their writing, strengthening their compositions while deepening their understanding of their own thinking and learning processes.

Additionally, I will discuss insights from my essay "Awakening the Dionysian Nerve: Bringing Poems off the Page and into the Body," originally published in *Teachers & Writers Magazine* (2012) and later included in *Far Villages: Welcome Essays for Beginner Poets* (Black Lawrence Press, 2020). In this essay, I explore how the act of memorizing and reciting poetry allows students to not only hear a poem but to experience it fully, deepening their appreciation and critical engagement.

By integrating questioning strategies, discussion-based inquiry, and embodied practices such as recitation, educators can transform poetry into a powerful tool for cultivating independent, creative, and critical thinkers.

## Concurrent Sessions Continued

### Operationalizing the Paul-Elder Framework for Instruction, Assessment, and Student Development

**David Johnson**

Associate Professor

University of Louisville

Louisville, Kentucky

*Room: DA 109*

This session or discussion will highlight specific pedagogies developed from the Paul-Elder Model for Critical Thinking to teach undergraduate public health students at the University of Louisville. Since their development over 10 years ago, these pedagogies have been featured in multiple peer-reviewed publications, won awards and recognition at both the national and institutional level, and to date have been a part of the training and development for thousands of undergraduate students at the University of Louisville. This session will empower participants to consider adopting similar approaches, as well as present and discuss student outcomes data (on Intellectual Trait development) from the most recent related manuscript.

### Critical Thinking as Criteria for Learning Outcomes in Schools

**Susannah Johnson**

CEO

Individualized Realized

Honolulu, Hawaii

*Room: DA 101*

Reimagining how we approach the business of human development that is education requires a new recipe for evidence of learning. Examining research behind testing first, we will then work with our foundational critical thinking practices, and our imaginations, to design learning outcomes that are relevant, authentic, and connected to global competencies.

- As we define our own concepts of learning outcomes, we will walk through questions for the Elements of Thought to ensure proper aims in “evidence of learning.”
- With innovative ideas, we will use the Elements of Thought, Intellectual Standards, and Intellectual Traits as criteria for evaluation of the new.





## Roundtable Discussions Program

**Saturday, July 26**

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

**Room DA 101**

The Roundtable Discussions offer an opportunity for us to engage in lively, informal dialogue about important critical thinking topics ranging from formal education to personal development, military affairs, and beyond.

Multiple topic presentations have been clustered together within each Roundtable Discussion. Every discussion will begin with each presenter in the group taking his or turn giving a 5-10 minute presentation. After all presenters in the group have had the opportunity to present, the Roundtable will open into a Socratic Discussion among its participants about the ideas at hand. Join any discussion as you wish, and feel free to move between discussions after the initial presentations are finished.

### Cluster 1

#### **There and Back Again: Theoretical Wisdom, Practical Wisdom, & Critical Thinking**

**Matt Isaia**

Instruction & Online Outreach Librarian

Saint Mary's University of Minnesota

Minneapolis, Minnesota

What is the link between Intellectual Virtues and critical thinking? More specifically, what is the link between wisdom and critical thinking?

In this session, I define wisdom in ancient Greek terms, and more specifically, in the Aristotelian sense where wisdom is divided into two separate concepts: *sophia* and *phronesis*. Theoretical wisdom (*sophia*) can be described as the knowledge we possess about the natural world (i.e., the world around us), while practical wisdom (*phronesis*) can be described as excellence in moral decision-making (i.e., wise decision-making). I argue that, together, these two concepts of wisdom are essential in helping to shape and improve our critical thinking skills.

The Foundation for Critical Thinking teaches us that “critical thinking is the art of analyzing and evaluating thought processes with a view to improving them” (Paul & Elder, 2020, pg. 9). The virtue of wisdom, which is often referred

## Roundtable Discussions Continued

to as meta-virtue, guides not only our thinking but our actions as well. Wisdom should play a significant role in critical thinking of any kind, be it conducting research for an assignment, consuming news media, or learning from our mistakes. For, as we know, “critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking” (Paul & Elder, 2020, pg. 9). Thus, it is wisdom that helps guide us in our self-reflection and decision-making.

In this session, I intend to use key concepts within character education, rooted in the teachings and philosophy of Aristotle, to explore the basic tenets of critical thinking as defined in the Foundation for Critical Thinking’s *Miniature Guide to Critical Thinking Concepts and Tools*. My goal is to explore the intellectual virtue of wisdom in order to show that both theoretical wisdom (sophia) and practical wisdom (phronesis) play an important role in the critical thinking process. More specifically, I intend to draw upon a four-component model of wisdom and connect them to the concepts found within the Foundation’s Critical Thinking Framework.



## Roundtable Discussions Continued

### Grounding Critical Thinking in Objective Reality

**Bryan Calkin**

Scholar

Charlotte, North Carolina

Critical thinking is the process by which humans align their mental models to reality. There are two fundamental axioms: existence and consciousness. Existence equals objective reality, that which is independent of a mind. Consciousness is that which is mind-dependent, or subjective. Critical thinking (subjective consciousness) must be grounded by objective reality.

When a disagreement occurs between two interlocutors about a fact, reality is the arbiter. For example, if I believe the earth is flat and you believe the earth is ellipsoidal, the facts of reality determine who is correct. Effective critical thinking, and teaching, must use objective reality as the foundation for establishing the facts, formulas, and theories that we use to understand ourselves and the world. That is, we must ground our critical thinking techniques in the fixed and knowable parts of reality. Our knowledge base grows, through the critical thinking process, as our collective mental models more closely align with objective reality.



## Roundtable Discussions Continued

### Cluster 2

#### Utilizing Hip-Hop Lyrics to Foster Students' Critical Thinking: Language, Identity and Interpretation

**C. Keith Harrison**

Professor of Business, Hip-Hop, and Sport (Retired)

University of Central Florida

Orlando, Florida

#### *Co-Authors:*

**Marcis Fennell**

University of Louisville

Louisville, Kentucky

**Whitney Griffin**

Cerritos College

Norwalk, California

**Madeline Maulini**

University of Central Florida

Orlando, Florida



This Roundtable presentation will illustrate a method by which participants can engage in critical thinking through the content of hip-hop lyrics. Hip-hop lyrics reveal abstract and blunt content about the world in terms of education, social inequalities, sports, and other themes inside the USA and global cultures. In a practical way based on theoretical approaches, students in our courses are taught to gaze at various hip-hop content (e.g., lyrics, music videos) with a critical prism about the context of these messages. This includes the deconstruction of images, words, language, etc. and teaching students critical thinking through inductive and deductive coding of content from hip-hop poetry and representations of social realities. In terms of research, data has been systemically collected by the following approaches.

In the past, scholars of business, entrepreneurship, and economics have relied almost exclusively on quantitative methods (Starr 2014). However, in our research, we adopt a qualitative approach, using the Linguistic Inquiry and Word Count (LIWC) online software to analyze hip-hop lyrical content. LIWC is a computerized research tool capable of examining everyday language and through a series of thematic codes, it seeks to explore the frequency in which

## Roundtable Discussions Continued

certain words and phrases occur (Pennebaker et al. 2015). This software has over 100 preset dictionaries that examine text files word-by-word, categorizing words on the basis of their relative psychosocial similarities. For example, LIWC attempts to reveal the degree to which text-based scripts have an interest in status and dominance by using power dictionaries (Pennebaker et al. 2015). Each dictionary consists of a list of words, word stems, emoticons, and other specific verbal constructions that have been identified to reflect a psychological category of interest. Hip-hop artists are known to use creative slang, but this is seldom a problem because LIWC takes advantage of several probabilistic models of language use. LIWC reads a given text and compares each word in the text to the list of dictionary words and calculates the percentage of total words in the text that match each of the dictionary categories. For example, if LIWC analyzed a single speech containing 1,000 words using the built-in LIWC dictionaries, it might find that 50 of those words are related to power. LIWC then converts these numbers to percentages: 5 percent related to power.

Interestingly, scholars of business and economics have described entrepreneurs as “subjects of power, primarily concerned with achieving some form of domination and commercialized success” (Dey and Steyaert 2014), and so we elected to utilize the power dictionary as well as the preset dictionaries associated with achievement, authenticity, money, reward, risk, and work. Stephen Spinelli and Robert Adams (2016) identified the following as attributes of effective entrepreneurship: commitment and determination, courage, leadership, opportunity obsession, tolerance of risk, ambiguity, creativity, self-reliance, and adaptability. These seven preset dictionaries provided by LIWC closely resemble some of the characteristics defined by previous scholars of entrepreneurship. From our analyses, we seek to further our empirical understanding of hip-hop moguls and their dominant entrepreneurial schemes.

### **Professional Development Workshop: Applying the Dual-Process Model to Promote Preservice Teachers’ Critical Thinking Skills in Hybrid Learning**

**Fatiha Bazouche**

Teaching Assistant

Ohio University

Athens, Ohio

This Roundtable presentation, focused on professional development, introduces an evidence-based approach to enhancing preservice teachers’ critical thinking

## **Roundtable Discussions Continued**

skills in hybrid learning environments by applying the Dual-Process Model of cognition. Grounded in Merrill's First Principles of Instruction and Paul and Elder's Intellectual Standards, the workshop explores how balancing fast, intuitive thinking with slower, reflective reasoning can support the development of higher-order thinking. This presentation aims to introduce educators to practical methods that merge cognitive theory and pedagogy, ultimately supporting the development of adaptive, critical thinkers prepared for the complexities of modern classrooms.

### **A Journey of Discovery in Nigerian Military and Intelligence Community Education**

**Caroline Obiageli**

Associate Professor

Nigerian Defence Academy

Kaduna, Nigeria

As a young doctoral graduate of Critical Education in 2015, participation in the Nigerian Defence Academy's Center for Critical Thinking, Teaching, and Learning reassured my continued academic journey in fostering critical thinking. The Center exposed me to the Paul-Elder Model of Critical Thinking, facilitating easier navigation along this journey. In this decade-long journey, I attained significant milestones in internalizing the model, promoting critical thinking with the help of the model at all levels of education in the Nigerian military and intelligence community, attaining local and international recognition as a Fulbright Scholar for program and curriculum development in critical thinking, and ultimately being successfully adjudged a Professor of Critical Thinking and Educative Entertainment.

This presentation highlights how, in this journey through which I achieved a discovery of self, I also discovered that a key strength of the Paul-Elder model also creates distinct challenges in the teaching and learning process. The systematic presentation of the application of Intellectual Standards to Elements of Thought in order to develop Intellectual Traits offers clarity and convenience in the broad application of critical thinking to diverse tasks, problems, and situations. However, the same systematic approach has continually posed a challenge to teaching and learning critical thinking in my experience. This Roundtable Discussion will invite the exchange of ideas with other practitioners to develop strategies for overcoming this challenge.



## Roundtable Discussions Continued

### Cluster 3

#### Clarifying Insights and Misinterpretations of the Paul-Elder Critical Thinking Framework for Freshman Psychology Students

**Azriel Williams**

Graduate Teaching Assistant  
University of Louisville  
Louisville, Kentucky

**Loui Chang**

Graduate Teaching Assistant  
University of Louisville  
Louisville, Kentucky

**Edna Ross**

Professor of Psychology  
University of Louisville  
Louisville, Kentucky



The introductory psychology course at the University of Louisville requires students to use the Paul-Elder critical thinking framework in a written assignment. This assignment is designed to encourage students to analyze, evaluate, and interpret information, enabling them to understand and make informed decisions regarding the data presented in published journal articles. The authors recently have noted increasingly more students having difficulty with this assignment. This increase corresponds with the increase in the inclusion of students who experienced junior high and high school during the difficult era of online education due to COVID-19. Students commit definitional errors regarding the specific terminology of the Elements of Thought. Despite instructions to the contrary as well as requiring students to read *The Miniature Guide to Critical Thinking Concepts and Tools*, students often use more familiar definitions than the precise meanings given by Paul and Elder to respond to the assignment questions.

Our goal in this discussion is to engage educators, scholars, and critical thinkers in creating a motivating space to share ideas and innovative solutions that can help address the challenges and obstacles that post-COVID university and college students may encounter in their critical thinking development.



## Roundtable Discussions Continued

### Two Sides of the Coin: Evaluating Critical Thinking Environments

#### Il Barrow

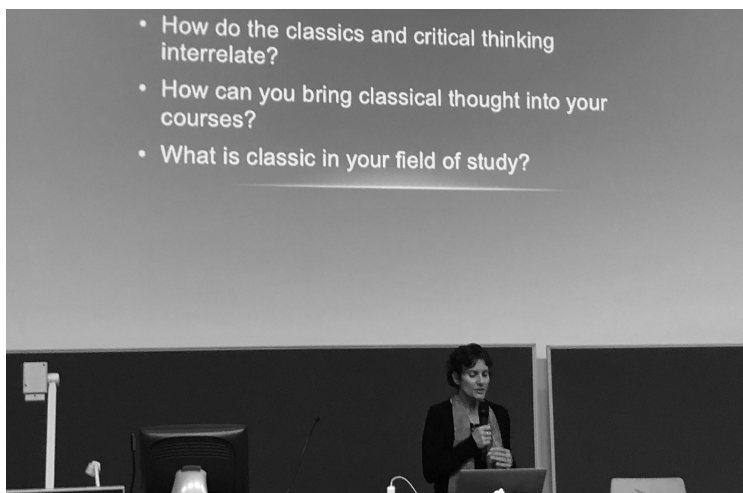
Associate Director of Assessment

University of Louisville – Delphi Center for Teaching and Learning

Louisville, Kentucky

This Roundtable Discussion explores the use of the Learning Critical Thinking Inventory (LCTI) and the Teaching Critical Thinking Inventory (TCTI) as validated tools for self-assessment of critical thinking characteristics within academic courses. These instruments provide a quick, anonymous method for instructors and students to evaluate critical thinking from their respective perspectives. The results can inform instructors and academic programs on strategies to enhance critical thinking skills within specific courses.

Additionally, universities can leverage these insights to assess and improve the integration of critical thinking across the undergraduate curriculum, ultimately fostering a more robust educational environment.



- How do the classics and critical thinking interrelate?
- How can you bring classical thought into your courses?
- What is classic in your field of study?

## Concurrent and Roundtable Presenter Information

### **Il Barrow**

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### **C. Keith Harrison**

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### **Matt Isaia**

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### **David Johnson**

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## Concurrent and Roundtable Presenter Information Continued

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# International Critical Thinking Manifesto

By Richard Paul and Linda Elder  
Foundation for Critical Thinking  
Finalized January 25, 2020

## History and Philosophy of Critical Thinking<sup>1</sup>

Critical thinking is integral to education and rationality and, as an idea, is traceable, ultimately, to the teaching practices and educational ideals of Socrates. Criticality has played a seminal role in the emergence of academic disciplines and the questions that have given rise to them. Knowledge, in other words, has been discovered and verified by the distinguished critical thinkers of intellectual, scientific, and technological history. For the majority of the idea's history, however, critical thinking has been "buried", a conception in practice without an explicit name. In the past forty years, however, critical thinking has undergone something of an awakening, a coming-out, a first major social expression, which could, if taken seriously, signal a turning-point in its history and the future of the human species.

This awakening is correlated with a growing awareness that if education is to produce critical thinkers *en masse*, if it is to globally cultivate nations of skilled thinkers and innovators rather than a dearth of thinkers amid an army of intellectually unskilled, undisciplined, and uncreative followers, then a renaissance and re-emergence of the idea of critical thinking as integral to the advancement of the human species is necessary. Such a reawakening and recognition began in the later 1930's and then surfaced in various forms in the 50's, 60's, and 70's, reaching its most public expression in the 1980's and into the present. Nevertheless, despite growing scholarship in critical thinking, and perhaps largely due to the disjointed and fragmented efforts to embody it in educational practice, the educational and social acceptance of critical thinking is still in its infancy, still largely misunderstood, still existing more in stereotype than in substance, more in appearance than reality.

Those who support this critical thinking manifesto are committed to the highest standards of excellence in critical thinking instruction across the curriculum at all levels of education. They are therefore concerned with the proliferation of poorly conceived "thinking skills" programs with their simplistic—often slick—approaches to both thinking and instruction. If critical thinking is ever to genuinely take root in education and among human societies, it is

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<sup>1</sup> This manifesto was adapted from the original statement and defining articles of the National Council on Excellence in Critical Thinking, 1987, which has yet to become realized in the U.S. or abroad.

essential that the formidable obstacles to its embodiment be recognized and addressed—namely the problem of egocentric and sociocentric thinking found in all academic fields, every profession, and all parts of human life.

To this end, sound standards of critical thinking must be made accessible by clear articulation and the means set up for large-scale dissemination of that articulation. The nature and challenge of authentic critical thinking as an educational ideal must not be allowed to sink into the murky background of educational reform, while superficial or ambiguous ideas become its substitute. Critical thinking must assume its proper place at the hub of educational reform and restructuring. Critical thinking—and intellectual and social development generally—are not well-served when educational discussion is inundated with superficial conceptions of critical thinking and facile merchandising of “thinking skills” programs while substantial—and necessarily more challenging conceptions and programs—are thrust aside, obscured, or ignored.

### **Goals of the International Critical Thinking Manifesto:**

The goals of the *International Critical Thinking Manifesto* are as follows:

- 1) to articulate, preserve, and foster the highest standards of research, scholarship, and instruction in critical thinking,
- 2) to articulate the standards upon which “quality” thinking is based and the criteria by means of which thinking, and instruction for thinking, can be appropriately cultivated and assessed,
- 3) to provide the intellectual underpinnings needed to assess programs which claim to foster higher order, critical thinking,

### **Founding Principles of the International Critical Thinking Manifesto:**

- 1) There is an intimate interrelation between knowledge and thinking.
- 2) Knowing that something is so is not simply a matter of believing that it is so, it also entails being justified in that belief. (Definition: knowledge is **justified** true belief.)
- 3) There are general as well as domain-specific standards for the assessment of thinking.
- 4) To achieve knowledge in any domain, it is essential to think critically.
- 5) Proper criteria for assessing thinking in all domains are based on general standards such as: *clarity, precision, accuracy, relevance, significance, fairness, logic, depth, and breadth, and sufficiency*. These standards, and others, re embedded not only in the history of the intellectual and scientific communities but also in the self-assessing

behavior of reasonable persons in everyday life. It is possible to teach all subjects in such a way as to encourage the use of these intellectual standards in both professional and personal life.

- 6) Instruction in critical thinking should increasingly enable students to assess both their own thought and action and that of others by reference, ultimately, to essential intellectual standards. Instruction based on critical thinking should lead progressively to a disciplining of the mind and a self-chosen commitment to a life of intellectual and moral integrity.
- 7) Instruction in all subjects and fields should result in advancing students' capacities and dispositions to think critically within that domain. Hence, instruction in science should lead to disciplined scientific thinking; instruction in mathematics should lead to disciplined mathematical thinking; instruction in history should lead to disciplined historical thinking; and in a parallel manner in every discipline and domain of learning.
- 8) Disciplined thinking within any subject entails the capacity on the part of the thinker to recognize, analyze, and assess the basic elements of thought: the *purpose* or goal of the thinking; the problem or *question* at issue; the frame of reference or *points of view* involved; the *assumptions* that give rise to the thinking; central *concepts*, ideas, and principles underlying the thinking; evidence, data, or *information* advanced in support of the reasoning; *inferences* and conclusions drawn from the information and assumptions; and *implications* and consequences that follow from the reasoning.
- 9) Reasoning at the highest level entails embracing, actively working toward, and eventually embodying intellectual virtues such as *intellectual humility*, *intellectual empathy*, *intellectual integrity*, *intellectual perseverance*, *intellectual courage*, *fairmindedness* and *confidence in reason*.
- 10) Critical reading, writing, speaking, and listening are essential modes of learning in all academic fields. To be developed they must be systematically cultivated in a variety of subject domains as well as across disciplines. Each of these modes of learning are successful only to the extent that they are disciplined and guided through critical thought and reflection.
- 11) The earlier that children develop sensitivity to the standards of sound thought and the intellectual virtues of the fairminded person, the more

likely they will develop desirable intellectual habits and become openminded persons responsive to reasonable persuasion.

- 12) *Education*—in contrast to *training*, *socialization*, and *indoctrination*—implies a process conducive to critical thought and judgment. It is intrinsically committed to the cultivation of reasonability and rationality.

## Defining Critical Thinking<sup>2</sup>

Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action. In its exemplary form, it is based on intellectual standards that transcend subject matter divisions: *clarity, accuracy, precision, consistency, relevance, depth, breadth, fairness and sufficiency*. Critical thinking entails the examination of those structures or elements of thought implicit in all reasoning: *purpose, question-at-issue; assumptions; concepts; information; inferences and conclusions; implications and consequences; and the point of view* from which the reasoning occurs. Critical thinking is incorporated in a family of interwoven modes of thinking, among them: scientific thinking, mathematical thinking, historical thinking, anthropological thinking, economic thinking, ethical thinking, and philosophical thinking.

The level of critical thinking of any kind is never wholly consistent in any individual; everyone is subject to episodes of undisciplined or irrational thought. Its quality is therefore typically a matter of degree and dependent on, among other things, the quality and depth of experience in a given domain of thinking or with respect to a particular class of questions. No one is a critical thinker through-and-through, but only to such-and-such a degree, with such-and-such insights and blind spots, subject to such-and-such tendencies towards self-delusion. For this reason, the development of critical thinking skills and dispositions is a life-long endeavor.

Properly conceived, then, critical thinking is self-guided, self-disciplined thinking that attempts to reason fairmindedly at the highest level of quality. People who consistently think critically attempt to live rationally, reasonably, empathetically. They are keenly aware of the inherently flawed nature of

2 This definition was adapted from the 1987 definition of the National Council for Excellence in Critical Thinking by Richard Paul and Michael Scriven and presented at the 8th Annual International Conference on Critical Thinking and Education Reform, summer 1987, as well as the brief conceptualization of critical thinking by Linda Elder—both of which can be found at <http://www.criticalthinking.org/pages/defining-critical-thinking/766>)

human thinking when left unchecked. They strive to diminish the power of their egocentric and sociocentric tendencies. They routinely use critical thinking concepts and principles that enable them to analyze, assess, and improve thinking. They work diligently to embody, throughout all areas of their lives, intellectual virtues such. They realize that no matter how skilled they are as thinkers, they can always improve their reasoning abilities and will at times fall prey to mistakes in reasoning, irrationalities, prejudices, biases, distortions, uncritically accepted social rules and taboos, self-interest, and vested interest. They strive to improve the world in whatever ways they can, thereby contributing to a more rational, egalitarian, society. At the same time, they recognize the complexities inherent in doing so. They avoid thinking simplistically about complicated issues and strive to appropriately consider the rights and needs of relevant others. They recognize the difficulties in developing as thinkers and commit themselves to life-long practice toward self-improvement. They embody the Socratic principle: *The unexamined life is not worth living.*



Gerald Nosich, Bertrand Russell Distinguished Scholar Carol Tavris, and Linda Elder at the 36th Annual International Conference



## About Richard Paul

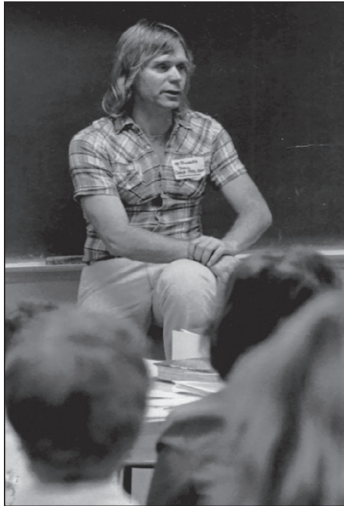
### The Founder of the Center and Foundation for Critical Thinking

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.



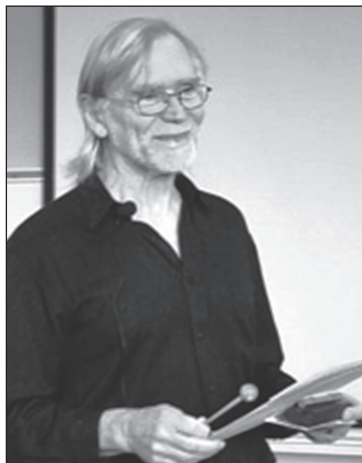
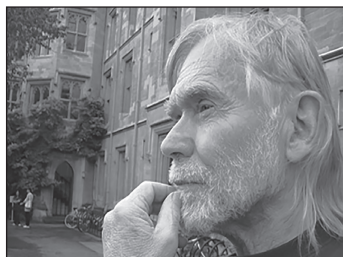
The importance of Paul’s work lies in its richness and in its universal application to human decisions and interactions, in its simplicity and in its complexity, in its delineation of ethical versus unethical critical thought, and in its integration of insights from many domains of human reasoning. Through 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 a more merciful world.



## A Special Thank-You to Our Donors

Despite its status as a 501(c)(3) non-profit, the Foundation for Critical Thinking was almost entirely self-funded for decades. But critical thinking is now in financial danger as never before. Therefore we are now calling on you, our critical thinking community, for help.

In this section, we honor those whose generous gifts have helped us continue the important work of advancing ethical critical thinking. We are profoundly grateful to these donors who have helped keep our doors open.

This list includes everyone who made a charitable contribution from May 11th, 2024 through May 11th, 2025. If you are not yet a donor, we hope you will add your name to this list for next year's program. To contribute to the Foundation for Critical Thinking, visit [www.criticalthinking.org](http://www.criticalthinking.org) and click 'Donate,' or simply email us at [cct@criticalthinking.org](mailto:cct@criticalthinking.org). We also welcome in-kind gifts and volunteers in various capacities.

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Michelle Causton	John S.	Kevin Smith
Anne	Marc Charnow	

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Our sincere thanks to **Ken Marx** and **Derek Plumridge** for supporting us at this uncommon level.

## Sustainers (Major Gifts)

We thank **Benjamin Wade** for his tremendous generosity. In recent years, Mr. Wade's support has played an immense role in the continuation of the global critical thinking movement.

We also thank **Kevin Holmes**, who has shared his remarkable talents with us at all hours to help keep our work moving forward.

## About the University of Louisville

### Mission Statement

The University of Louisville pursues excellence and inclusiveness in its work to educate and serve its community through:

1. teaching diverse undergraduate, graduate, and professional students in order to develop engaged citizens, leaders, and scholars;
2. practicing and applying research, scholarship, and creative activity; and
3. providing engaged service and outreach that improve the quality of life for local and global communities.

The University is committed to achieving preeminence as a nationally-recognized metropolitan research university.



### Ideas to Action: The University of Louisville's Critical Thinking Journey

*Authored by Dr. Patty Payette, Executive Director of the University of Louisville's Quality Enhancement Plan*

In 2005, the University of Louisville embarked on a critical thinking journey to develop its first multi-year initiative called a quality enhancement plan (QEP). The QEP is a required and was, at that time, a new part of accreditation for higher-education institutions seeking the establishment or reaffirmation of accreditation through the Southern Association of Schools and Colleges – Commission on Colleges, or SACSCOC. The QEP must be proposed as a multi-year initiative with a focused plan to enhance and assess student learning in an area that the institution determines, after reviewing its own student-learning data and engaging campus constituents, will offer significant and lasting gains for its students.

In 2005, in order to pinpoint the topic of our university's first QEP, our campus leaders launched a broad effort to engage students, faculty, and staff in voicing how best to improve the undergraduate experience at our institution. With analysis of this input from campus groups and with a close look at our undergraduate students' past performance on campus-wide assessment instruments, the need to address our students' critical thinking abilities became apparent. University leaders quickly took up this theme for the new initiative, citing the need to develop students who can survive and thrive in our rapidly changing world. Simply learning material to pass a series of tests and earn a degree is not the business of universities; we needed to shift the paradigm in thinking about how we engage our students in becoming problem solvers, professionals



in all fields, and active citizens in the 21st century. Our university put all of its QEP “eggs” into the critical thinking skill-building “basket.” This is not to say that critical thinking was not a priority in the intellectual development of our students prior to the QEP development. However, while many of our faculty implicitly modeled critical thinking in their instruction, they did so without explicit and systematic discussion of critical thinking skills. This did not allow students to clearly grasp that they were being asked to think in new ways, to practice those ways of thinking, and to receive feedback so that they could transfer those new ways of thinking to contexts across the curriculum and into their lives.

In 2007, our institution submitted a QEP proposal for SACSCOC with two learning outcomes at its center: (1) students will be able to think critically and (2) then be able to demonstrate integration of critical thinking skills with disciplinary knowledge in a culminating undergraduate experience, such as a thesis, service-learning project, internship, or capstone experience. We named our QEP “Ideas to Action,” or i2a, to give a focus both on deepening students’ intellectual skills and then on guiding them to apply those skills in new ways.

Additionally, while our central aim was to influence the quality of our students’ thinking, we, as faculty and staff members, found an invaluable benefit for ourselves in this work. As we absorbed and applied the explicit practices and values of critical thought that we espoused for our students, our own decisions and strategies for fostering lasting, critical thinking-inspired change on campus were solidified and deepened, and our services and programs were greatly enhanced.

We vetted over a dozen established critical thinking approaches in our attempt to isolate an appropriate, scholarly concept of critical thinking for our initiative. It quickly became clear that the Paul-Elder Framework met all of our criteria, because it is a comprehensive approach that can be applied across disciplines, and it came with a wealth of online and print resources. We readily adopted the Paul-Elder Framework because we recognized it as what Linda Elder calls a substantive conception of critical thinking. To learn about the Paul-Elder Framework—its parts and its system as a whole—and how it can be leveraged for learning, our i2a staff team invested a great deal of time in both reading on our own and discussing as a group the books and guides written by Richard Paul and Linda Elder.

To educate and energize our faculty, staff, and students to integrate the Paul-Elder Framework into their work in and outside the classroom, we developed signature programs that made a lasting impact on our campus community between 2007 and 2017:

- our cohort-based learning communities for faculty, and one for staff, to integrate the framework into our work with students;

- the mini-grant program for individuals, teams, and departments to propose projects to permanently infuse critical thinking into the curriculum;
- the annual 4-day i2a Institute—a campus-wide conference with peers and experts doing short and long sessions on their integration of critical thinking into their work;
- critical-thinking posters based on the Paul-Elder Framework posted in classrooms across campus;
- a critical thinking assessment tool/inventory that faculty and their students complete to assess whether research-based behaviors are being cultivated in classrooms to promote critical thinking (see the article referenced below for more information).

We ourselves have been buoyed and energized by the hundreds of faculty and staff members who spent many personal and professional hours working with us to advance their own thinking and discover how to advance the thinking of their students. As we gained facility in the principles of the Paul-Elder Framework, we discovered that its use brought greater clarity, intentionality, and depth to our methods for implementation of i2a, and that it induced us to make our thinking and decision-making process transparent and explicit with our colleagues; this, in turn, helped them do the same with their students and coworkers.

**To learn more about i2a and its impact on our campus, you might review some of the following scholarship that has come out of our project:**

Cosgrove, D. R. (2013). *Improving teaching and learning of critical thinking across the curriculum at a large research university: An empirical study using qualitative methods* (Doctoral dissertation, University of Cambridge).

Payette, P. (2017, March). About Ideas to Action and Our Critical Thinking Posters. In *National Teaching & Learning Forum* (Vol. 26, No. 3).

Payette, P. R., & Gupta, N. (2024). Assessing Culminating Experiences: Balancing Rigor and Flexibility in the Design and Delivery of a Capstone Experience.



*Multidisciplinary Approaches to Culminating Student Experiences*, 19.

Payette, P., & Ross, E. (2016). Making a Campus-Wide Commitment to Critical Thinking: Insights and Promising Practices Utilizing the Paul-Elder Approach at the University of Louisville. *Inquiry: Critical Thinking Across the Disciplines*, 31(1), 98-110.



## Publications by Foundation for Critical Thinking Fellows

The following publications have been authored (in some cases with outside coauthors) by Foundation for Critical Thinking Fellows:

### Publications Available from Foundation for Critical Thinking Press

- *Critical Thinking Therapy: For Happiness and Self-Actualization* [Textbook]
- *Critical Thinking Therapy: Self-Actualization and Happiness Toolbox for Everyone* [Concise Edition of Critical Thinking Therapy]
- *The Miniature Guide to Critical Thinking for Children*
- *Think About Fran and Sam: Which One Is Better at Thinking?* [Children's Book]
- *The Truth We Can Live: Poems for Linda* by Richard Paul

### Publications Available from Rowman & Littlefield [Bloomsbury Publishing]

- *Critical Thinking: Tools for Taking Charge of Your Learning and Your Life* [Textbook]
- *Critical Thinking: Learn the Tools the Best Thinkers Use* [Textbook]
- *Critical Writing: Using the Concepts and Processes of Critical Thinking to Write a Paper* [Textbook]
- *Liberating the Mind: Overcoming Sociocentric Thought and Egocentric Tendencies* [Textbook]
- *Critical Thinking: Tools for Taking Charge of Your Professional and Personal Life*
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- *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*

#### **Publications Available from Pearson**

- *Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum* [Textbook]

#### **Publications Available Exclusively Through the Center for Critical Thinking Community Online – CriticalThinkingCommunity.Org**

- *Critical Thinking: What Every Person Needs to Survive in a Rapidly Changing World* [The Richard Paul Anthology]
- *A Glossary of Critical Thinking Terms and Concepts*
- *Critical Thinking: Basic Theory and Instructional Structures Handbook*
- *Critical Thinking Handbook: K-3rd Grades*
- *Critical Thinking Handbook: 4th-6th Grades*
- *Critical Thinking Handbook: 7th-9th Grades*
- *Critical Thinking Handbook: High School*
- *Historical Thinking: Bringing Critical Thinking into the Heart of Historical Study* [Instructor's Guide to Historical Thinking]
- *The Teacher's Manual for the Miniature Guide to Critical Thinking for Children*
- *Teacher's Handbook for Critical Thinking for Children*
- *Fairminded Fran and the Three Small Black Community Cats* [Children's Book]

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# ON-SITE AND ONLINE PROFESSIONAL DEVELOPMENT IN CRITICAL THINKING

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## EDUCATION

Having conducted successful workshops at many hundreds of K-12 and higher-education institutions, our presenters know how to help faculty and administration infuse critical thinking into courses and throughout curriculum. Workshop strands include:

- “Introduction to The Fundamentals of Critical Thinking & the Art of Instruction”
- “Critical Thinking and the Process of Assessment”
- “Teaching Students to Ask Good Questions and Follow Out the Implications of Thought”
- Discipline-specific strands for the sciences, humanities, nursing, etc.
- ... and many more.

## BUSINESS & GOVERNMENT

We have worked with corporations, police departments, the military, and other non-academic institutions to help them integrate critical thinking understandings among their personnel. Workshop strands include:

- Recognizing the Importance of Critical Thinking in Human Organizations
- Using the Tools of Critical Thinking to Make Better Decisions
- Learning the Art of Analysis
- Learning the Art of Assessing Thought
- ... and more.

## CUSTOM PROGRAMS AVAILABLE

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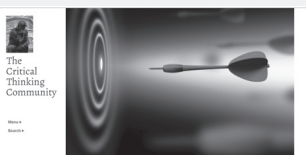


# Join the Critical Thinking Community Online

Our community invites all to join who want to advance fairminded critical thinking throughout work, life, and human societies.

This community is sponsored by The Foundation for Critical Thinking and its donors, and is now open for membership. Our community members advance and foster basic concepts and principles in critical thinking.

**Join Us...** [www.criticalthinkingcommunity.org](http://www.criticalthinkingcommunity.org)



## Criteria Corner

**Humans live in a world of thoughts. We accept some thoughts as true. We reject others as false. But the thoughts we perceive as true are sometimes false, unsound, or misleading.**

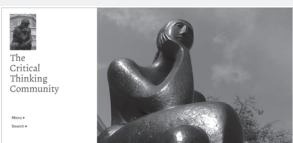
And the thoughts we perceive as false and trivial are sometimes true and significant. The mind doesn't naturally group the truth. We don't naturally see things as they are. We don't automatically sense what is reasonable and what unreasonable. Our thought is often biased by our agendas, interests, and values. We typically see things as we want to. We tend readily to fit our preconceived ideas. Distorting reality is common in human life. It is a phenomenon to which we all unfortunately fall prey.

Each of us views the world through multiple lenses, often shifting them to fit our changing feelings. In addition, much of our perspective is unconscious and societal and has been influenced by many forces – including social, political, economic, biological, psychological, and religious influences. Social rules and taboos, religious and political ideologies, biological and psychological impulses, all play a role, often unconscious, in human thinking. Self-interest, vested interest and specializations, are deeply influential in the intellectual and emotional lives of most people.

**We need a system for intervening in our thoughts. We need to take rational command of our cognitive processes in order to rationally determine what to accept and what to reject. In short, we need standards for thought, standards that guide us to consistently excellent thinking – standards we can count on taking our thinking on track, to help us mirror in our minds what is happening in reality, to reveal the truth in situations, to enable us to determine how best to live our lives.**

We propose that there are at least five intellectual standards important to conducting affairs of everyday life. These are clarity, precision, accuracy, relevance, depth, breadth, significance, and fairness.

Beginning with these five intellectual standards will help set the stage for conceptualizing intellectual standards (more broadly) and for appreciating the essential role of intellectual standards in human reasoning.



## Triangle of Thinking, Feeling, and Wanting

**Everyone thinks. It is our nature to do so. But much of our thinking left to itself is biased, distorted, ill-founded, or prejudiced. Much of our thinking leads to problems in our lives. Much of our thinking leads to cruelty and injustice. Of course, the mind doesn't just think. It also feels and wants. What is the connection? Our thinking shapes and determines how we feel and what we want. When we think well, we are motivated to do things that make sense and motivated to act in ways that help rather than harm ourselves and others.**

At the same time, powerful emotions or desires influence our thinking, help or hinder how well we think in a situation. If we given consent, our minds that complex of our thoughts, feelings and desires can be under the sway of our native irrationality or our potential reasonability. When we are unable to fit our emotional impulses, we use the world from a narrow self-serving perspective. We are not truly concerned with how our behavior affects others. We are fundamentally concerned with getting what we want and/or with validating our beliefs and views.

The key to understanding human thought lies, so, in understanding the essential duality to capacity for rationality being trapped in egotistical and/or socio-centric thought with its attendant self-enclosed, self-deceived, indoctrinated, and its forms and its capacity for reasonability freeing itself from self-enclosed, myth, and biases. Though thinking, feeling and wanting are, in principle, equally important, it is only through thinking that we take command of our minds. It is through thinking that we figure out what is going wrong with our thinking. It is through thinking that we figure out how to deal with obstructive emotions. It is through thinking that we change unproductive desires to productive ones. It is through thinking that there is less intellectual slavery and conformity. If we understand our mind and its functions, if we face the barriers to our management caused by egotistical and socio-centric thought, if we work upon our mind in a daily regimen, we can take the steps that lead to our empowerment as thinkers.

**To learn more about the relationship between thoughts, feelings and desires, read *The Thinker's Guide to Taking Charge of the Human Mind*, pp. 3-10.**



## The Critical Thinking Community

[www.criticalthinkingcommunity.org](http://www.criticalthinkingcommunity.org)

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**To register or for more details – visit:**  
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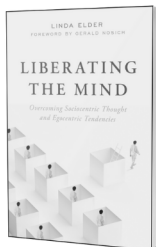


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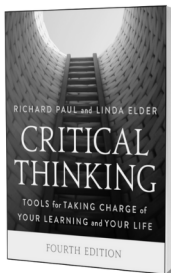
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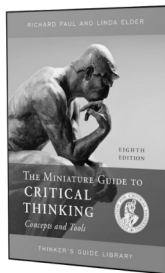
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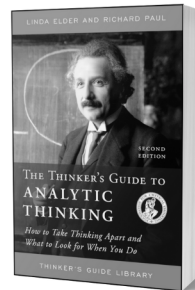
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Critical Thinking Therapy introduces a substantive theory of critical thinking to the field of mental health therapy. It details a broad, integrated set of critical thinking tools for use in self-therapy and professional therapy. It is for individuals seeking a more enlightened, more fulfilled, less fearful, and less self-defeating orientation to the world. It is also for those not reaching their potential who seek a self-actualizing frame of mind.

**To learn more, visit [CriticalThinking.Org](https://criticalthinking.org) > Online Learning > Critical Thinking Therapy: Overview & Learning Opportunities**

### Learn and Train in Critical Thinking Therapy

To learn more, visit [CriticalThinking.Org](https://criticalthinking.org) > Online Learning > Critical Thinking Therapy: Overview & Learning Opportunities

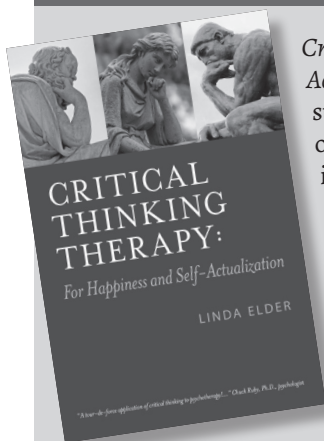
At present, while there are therapists who think critically in significant ways, there are no Critical Thinking Therapists per se – that is, no therapists yet trained in a full, explicit framework of critical thinking. Critical Thinking Therapy resources and training opportunities are offered by the Foundation for Critical Thinking, including:

- A custom **Critical Thinking Professional Development Program**, tailored to your needs and circumstances.
- 12-week **Online Courses in Critical Thinking Therapy**.
- A **Critical Thinking Therapy Certification Program**, sharing significant similarities with our more general Critical Thinking Certification Program, but with a focus on applying critical thinking to mental health therapy.
- The book ***Critical Thinking Therapy: For Happiness & Self-Actualization***.
- The concise edition, ***Critical Thinking Therapy: Self-Actualization and Happiness Toolbox for Everyone***.
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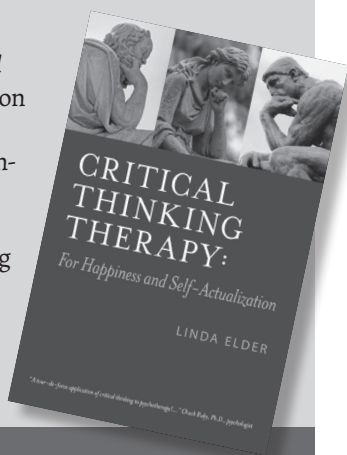
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To this point, only some of the many tools of critical thinking have made their way into mental health therapies (mainly through cognitive behavioral therapies). This book draws essential connections between critical thinking and living a self-actualizing lifestyle. Many activities are included, and suggestions are provided for finding a mental health therapist, should you require or desire one. Recommended readings are listed for you to go deeper into many of the ideas discussed throughout the book.

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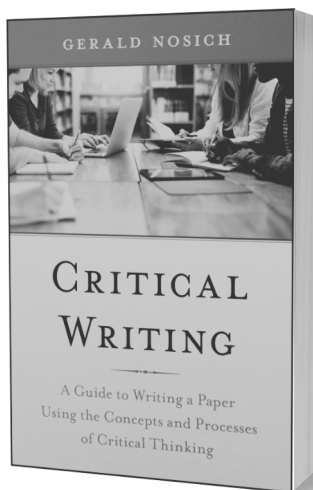
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The Foundation for Critical Thinking seeks to promote essential change in education and society through the cultivation of fairminded critical thinking—thinking committed to intellectual empathy, intellectual humility, intellectual perseverance, intellectual integrity, and intellectual responsibility. A rich intellectual environment is possible only with critical thinking at the foundation of education. Why? Because only when we learn to think through the content we are learning in a deep and substantive way can we apply what they are learning in our lives. Moreover, in a world of accelerating change, intensifying complexity, and increasing interdependence, critical thinking is now a requirement for economic and social survival. The Foundation for Critical Thinking Press is part of the Foundation for Critical Thinking, a 501(c)(3) nonprofit organization.

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**The unexamined life is not  
worth living... – Socrates**



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