
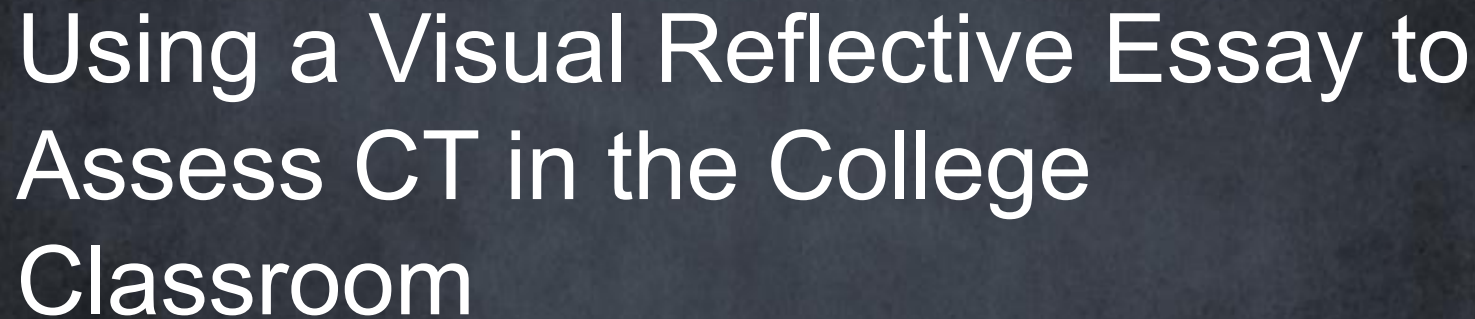




Dr. Ellen Vincent
Clemson University 



Using a Visual Reflective Essay to Assess CT in the College Classroom



CT2 Faculty Institute

June 8, 2022

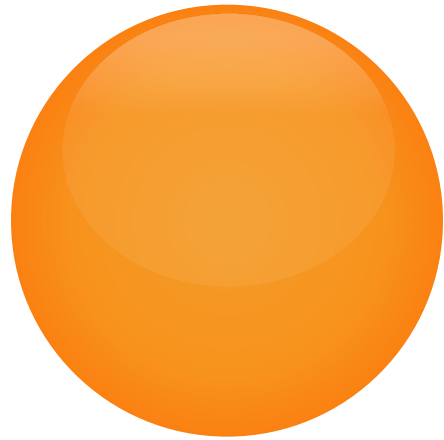
**42nd Annual International CT Conference/Foundation for
Critical Thinking June 2022**

Learning outcomes

- Identify or create rubric items suitable for assessment of critical thinking.
- Explore teaching techniques of diversity and small group exercises that support student understanding of essay rubric items.
- Examine critical thinking materials/concepts of intellectual traits, positive psychology, dialogue, and engagement to help students think deeply/broadly and express themselves.

Clemson University

- **Land Grant Institution founded in 1889**
- **Located in Clemson, SC**
- **20,868 undergraduates; 5,538 graduates**
- **7 degree-granting colleges, including College of Agriculture, Forestry and Life Sciences**
 - ***Plant and Environmental Sciences Department/Horticulture Program***
 - **HORT 3080 Sustainable Landscape Design, Installation & Maintenance**



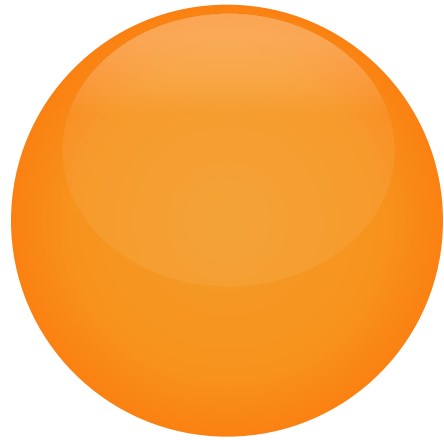
PROFESSIONAL/PERSONAL PATH

Dr. Ellen Vincent



Critical Thinking/Assessment

- Grew up in upstate NY Hudson River Valley with parents who were involved in the civil rights movement.
- Earned multiple interdisciplinary degrees (BA -American Culture/PhD. -Therapeutic Benefits of Nature)
- As a professor always tried to incorporate diverse people, places, and experiences in course content to foster positive actions and change.
- Chair of Assessment for HORT Dept 2011-2019.
- Attended first Critical Thinking Faculty Summit in 2014.
- Became CT Faculty Scholar 2014-2019.
- Presenter for Clemson CT2 Faculty Institutes and Foundation for CT Annual International Conferences.
- Teach HORT 3080 Certified CT2 class - 2013-present.



CLEMSON THINKS²

Founded 2012



Clemson Thinks²

- Lasting Impact: *since Fall 2012*
- Over 40 academic disciplines have participated in CT²
- Over 800 classes under the CT² aegis
- Over 35,000 students enrolled in CT² classes
- 225 faculty members have participated in the CT² Faculty Institute



Dr. David Knox,
Founding
Director CT²

<https://www.clemson.edu/academics/programs/thinks2/>
<https://www.linkedin.com/in/david-knox-1581895b/>

Clemson Thinks² Faculty Institute 2014

Keynote Speaker: Dr. Gerald Nosich, The Foundation for Critical Thinking 2014



<https://www.criticalthinking.org/pages/dr-gerald-nosich/820>

Keynote Speakers: Diane Halpern & Linda Nilsen 2016

<https://www.clemson.edu/academics/programs/thinks2/institute/2014.html>

Clemson Thinks² Faculty Institute



Faculty Institute 2019

← Speaker

Audience ↓

Faculty Institute 2020

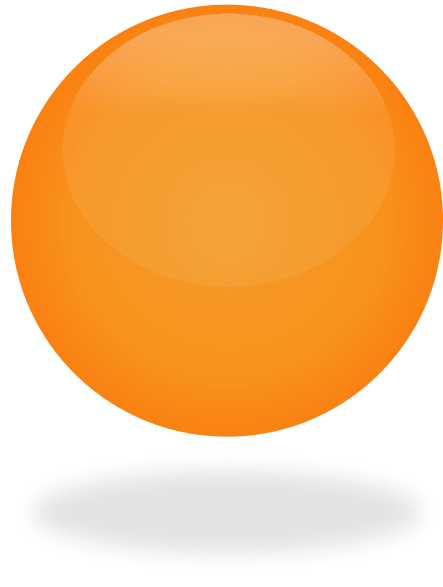


Clemson Thinks² Faculty Institute 2019



Faculty and Class CT² Certification

- Attend a multi-day CT² Summer Faculty Learning Institute
 - Create a syllabus that incorporates CT
- Submit two artifacts of Critical Thinking from CT² class each time it is offered to Director of CT².
- My class: HORT 3080 CT² *Sustainable Landscape Garden Design, Installation, & Maintenance*



ASSESSMENT MEASURES FOR CRITICAL THINKING HORT 3080

Dr. Ellen Vincent



Rubric

- Critical thinking is a process.
- A process can be operationalized by creating a rubric. –E. Vincent

Critical Thinking Protocol in Visual Essay

Grading rubric: 100 points total

Each essay should contain a header that includes: Name; Class title; Date; CT2 Visual Essay
Save the essay as a Word doc with your last name and the essay # in the saved file name: e.g. Smith_CT2 essay1.doc

Critical Thinking Essay Item	Points
<p>Identify a claim/belief/assumption from class or readings that you personally connect with:</p> <p>Identify and clearly state a specific claim/belief/assumption that you perceive. Use words "the claim is..." Include the source(s) you are using in the text. Do not use quotes-use your own words.</p>	10
<p>Investigate the validity of the claim/belief/ assumption:</p> <p>How can you check the author's claim/belief/assumption for accuracy and validity? Be specific and use a minimum of two methods to determine the legitimacy of the author's claims. Identify the method in the sentence each time.</p> <p>Experiential (personal experience); authoritative voices (professors, .gov, .edu sites); disciplined (peer reviewed literature; surveys; fact checks; repetition of experiments, etc.)</p> <p>In-text and end citations must be used so the reader can obtain or view the source.</p>	20
<p>Reflection from your past:</p> <p>Using your own personal experiences share a story from your past that was triggered by the claim/belief/assumption. Make it vivid so the reader feels as though they were there with you.</p>	10
<p>Explore alternate possibilities/conclusions using multiple viewpoints:</p> <p>What other possible perspectives, explanations, or interpretations can you suggest for a deeper understanding of the claim/belief/assumption? Use text "An alternate or opposing view is..." State the source of the view.</p>	10
<p>Action statement/Concluding personal informed actions:</p> <p>What informed action can you take in your daily life as a result of your critical analysis? Sit back and think about your critical examination of this topic. –What has changed (if anything)? "I now plan to..." or -What will you do now and why? Use "I" in this concluding section. Sample: "As a result I will..." or "From now on I intend to..." An actual act or example of what you can/will do must be mentioned.</p>	10

Rubric pg2

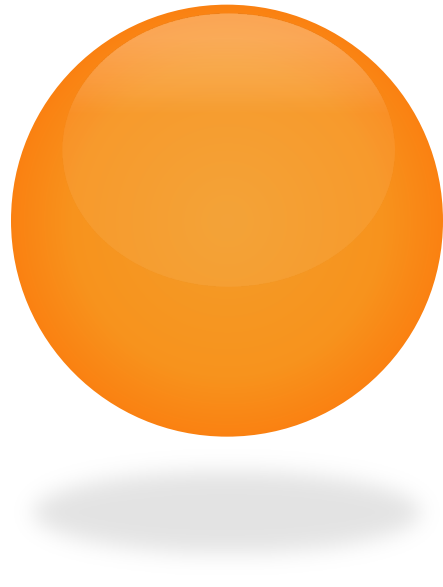
- Critical thinking is a process.
- A process can be operationalized by creating a rubric.

Sustainable Landscape Garden Design, Installation, & Maintenance HORT 3080 **HORT CT²**

Image: Tells the story of your search all by itself	20
Image is correctly cited to source	20
TOTAL	100

*Additional points may be lost for poor spelling and grammar, incorrect header or saved file name.

Please review the sample essays posted on Canvas prior to writing and submitting.



ASSESSMENT MEASURES FOR CRITICAL THINKING HORT 3080

Dr. Ellen Vincent




Assessment measures HORT 3080

Method of collection: Writing assignment

Measure type: Direct academic measure (direct examination or observation of student knowledge or skills)

Frequency of measure: once per year (annually)

Description of measure: Students in HORT 3080, a critical thinking class, will demonstrate critical thinking skills by creating a visual reflection essay that incorporates an eight-step process as indicated in a rubric.




Measuring CT for assessment

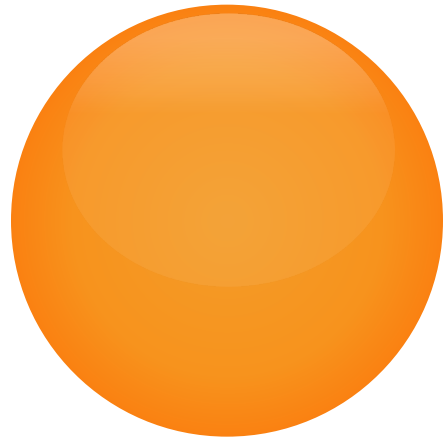
VM1 HORT 3080 Writing Assignment

Performance expectations:

- 80% of student will demonstrate critical thinking skills by successfully completing an eight-step process in a written critical thinking visual reflective essay.

Results: Target met. 92% (12 of 13 HORT major students) successfully identified the eight elements in their critical thinking visual reflective essay.

- Note: In 2021 fall, the class contained 27 students that include 13 HORT majors, and 14 students from other majors.
- 



ASSESSMENT MEASURES FOR DIVERSITY

Dr. Ellen Vincent



Assessment measures HORT 3080

Method of collection: Writing assignment

Measure type: Direct academic measure (direct examination or observation of student knowledge or skills)

Frequency of measure: once per year (annually)

Description of measure: Students in HORT 3080, a critical thinking class, will demonstrate diversity by expressing an alternate viewpoint to a claim/belief they are writing about in a critical thinking essay.


Measuring diversity for assessment

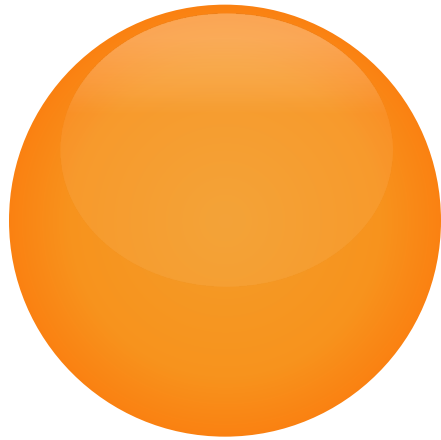
VM8 HORT 3080 Writing Assignment

Performance expectations:

- 80% of student will demonstrate diversity by identifying an alternate view to their claim in a written critical thinking essay.

Results: Target met. 100% (13 HORT major students) identified a multiple view in their critical thinking visual reflective essay.

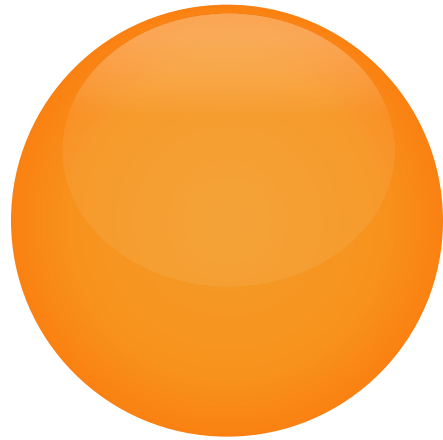
- Note: In 2021 fall, the class contained 27 students that include 13 HORT majors, and 14 students from other majors.
- 



ARTIFACT

“The reflective essay is not only a good assessment tool it is also a good engagement tool. I think one of the important discussion topics for this year is going to be re-engaging students in the “live” classroom experience after the shutdown.” –Dr. David Knox, Founding Director CT²

CT Visual reflection essay



CRITICAL THINKING VISUAL REFLECTION ESSAY HORT 3080

CT Visual Reflection Essay



Critical Thinking Visual Essay Items

1. Identify a claim/belief/assumption from the readings or class that you personally connect with.
2. Investigate the validity of the claim/belief/assumption.
3. Explore or look at the issue using multiple viewpoints.
4. Reflect from your past and tell the story.
5. Conclude with personal *informed* actions.
6. Add an image that supports your search.
7. Cite the image.



Sustainable Landscape Garden Design, Installation, & Maintenance HORT 3080

**HORT
CT²**

Critical Thinking Protocol in Visual Essay

Grading rubric: 100 points total

Each essay should contain a header that includes: Name; Class title; Date; CT2 Visual Essay
Save the essay with your last name and the essay # in the saved file name: e.g. Vincent_CT2 essay1

Critical Thinking Essay Item	Points
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<p>Investigate the validity of the claim/belief/ assumption:</p> <p>How can you check the author's claim/belief/assumption for accuracy and validity? Be specific and use a minimum of two methods to determine the legitimacy of the author's claims.</p> <p>Experiential (personal experience); authoritative voices (professors, .gov, .edu sites); disciplined (peer reviewed literature; surveys; fact checks; repetition of experiments, etc.)</p>	20
<p>Explore alternate possibilities/conclusions using multiple viewpoints:</p> <p>What other possible perspectives, explanations, or interpretations can you suggest for a deeper understanding of the claim/belief/assumption? State the source of the view.</p>	10
<p>Reflection from your past:</p> <p>Using your own personal experiences share a story from your past that was triggered by the claim/belief/assumption. Make it vivid so the reader feels as though they were there with you.</p>	10

Cognitive

Cognitive

Cognitive

Identify a claim two samples

- “In *The Case for Sustainable Landscapes* written by The American Society of Landscape Architects, Lady Bird Johnson Wildflower Center at The University of Texas at Austin, and The United States Botanic Garden, **the claim is that the natural, fiscal, and healthful benefits of sustainable landscape design are proven to crucially help both the environment and its inhabitants.**” –*HORTICULTURE 2021*
- “In *Landscaping Principles & Practices*, author J.E. Ingles discusses the impacts that an asymmetrical and symmetrical layout has on a landscape. He claims that **both symmetric and asymmetrical layouts may have their own positive and negative impacts, depending on the interests of the viewer.**”
–*HORTICULTURE 2021*

Identify a claim artifact 2021

- “In Cook and VanDerZanden’s publication, *Sustainable Landscape Design*, the authors discuss various historically important figures in the global sustainability movement. In this discussion, they talk about the **designers of New York City’s Central Park, Frederick Law Olmstead and Calvin Vaux. This pair believed that parks were therapeutic and helped cancel out the bustle of city life.**¹ We also discussed in class how these **parks serve as linkages for wildlife.**”

-HORTICULTURE 2021

Investigate validity-experiential artifact 2021

- “I can help validate this claim through my family’s and my own **personal experiences with the parks system in Downtown Greenville**. Falls Park was a place for my family to stroll and picnic as a child. It was a destination, and something that continues to make us proud to be from Greenville today. When we had guests visiting, there was always a trip planned to enjoy ice cream and watch the rapids from above the suspension bridge. I spent four summers running the trail system downtown for my high school’s cross-country team. **My associations with the greenspaces in downtown Greenville are positive**, going to the park has always been a treat. ”

–HORTICULTURE 2021

Investigate validity-authoritative artifact 2021

- **“The National Park Service serves as an authoritative voice on the ability for parks to serve as a linkage for wildlife , and how this action can result in the unity of individuals across the globe.** Neotropical migratory birds overwinter in South America and return to North America to nest and reproduce. In 2014, seven national parks and protected areas of Costa Rica's Osa Region (one of the most biologically diverse places on the planet) signed a "sister park" partnership with thirteen U.S. national parks.³ This partnership aims to increase public awareness of Neotropical migratory birds and protect and restore suitable habitat in the USA and Costa Rica. These parks unite individuals in both countries by hosting annual bird festivals in both places to celebrate their winged visitors. **Parks give individuals the ability to come together through one of the most relaxing and rewarding activities, birding, all while maintaining a place that these animals can survive and thrive within.”**

–HORTICULTURE 2021

Alternate viewpoint artifact 2021

- **“Individuals may be opposed to the creation of public parks out of fear of gentrification of the surrounding area. The introduction of public park systems may raise property taxes in nearby neighborhoods, as they increase in attractiveness. This may result in disastrous consequences for individuals who can no longer keep up with the price of living in these areas, who are ultimately pushed out of their homes. A Furman University article discusses a study performed in Greenville that tracked measures of community well-being over time. This study showed that a higher percentage of residents are burdened by rent or mortgage and more citizens live in poverty than did in the 1990s,⁴ which coincides with the redesign of Falls Park downtown.”**

–HORTICULTURE 2021

<p>Investigate the validity of the claim/belief/ assumption:</p> <p>How can you check the author’s claim/belief/assumption for accuracy and validity? Be specific and use a minimum of two methods to determine the legitimacy of the author’s claims.</p> <p>Experiential (personal experience); authoritative voices (professors, .gov, .edu sites); disciplined (peer reviewed literature; surveys; fact checks; repetition of experiments, etc.)</p>	<p>20</p>
<p>Explore alternate possibilities/conclusions using multiple viewpoints:</p> <p>What other possible perspectives, explanations, or interpretations can you suggest for a deeper understanding of the claim/belief/assumption? State the source of the view.</p>	<p>10</p>
<p>Reflection from your past:</p> <p>Using your own personal experiences share a story from your past that was triggered by the claim/belief/assumption. Make it vivid so the reader feels as though they were there with you.</p>	<p>10</p>
<p>Concluding personal informed actions:</p> <p>What informed action can you take in your daily life as a result of your critical analysis? Sit back and think about your critical examination of this topic. -What has changed (if anything)? <i>“I now plan to...”</i> or -What will you do now and why? Use “I” in this concluding section. Sample: <i>“As a result I will...”</i> or <i>“From now on I intend to...”</i></p>	<p>10</p>
<p>Image: Tells the story of your search all by itself</p>	<p>20</p>
<p>Image is correctly cited to source</p>	<p>20</p>
<p>TOTAL</p>	<p>100</p>

Affective

Kinesthetic

*Additional points may be lost for poor spelling and grammar or lack of header.

- “I was able to **participate in the Southern Appalachian MAPS (Monitoring Avian Productivity and Survivorship) banding program this summer** and I can say that it gave me a greater appreciation for avian research. I was surrounded by people that were so passionate for the program, and it was devastating to hear about the decline of specific warbler species due to habitat loss. **When I hear about parks such as the ones above, who are specifically targeting habitat preservation for wildlife as a main goal, I know that parks are serving a greater beneficial purpose.”**

–HORTICULTURE 2021

Concluding personal informed actions artifact 2021

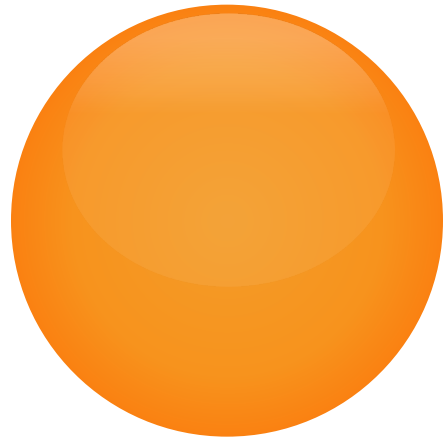
- “Being able to reflect on my own positive experiences in public parks over the years is pushing me to share this passion for the parks system with others. I don’t have to convince everyone I know to go birding with me, but **I am going to make an active effort to take people on trips to the Botanical Garden or to watch the sunset in Abernathy Park, with the goal to promote a sense of appreciation and potentially foster/inspire stewardship of these public places in others.**”

-HORTICULTURE 2021

Image plus citation artifact 2021

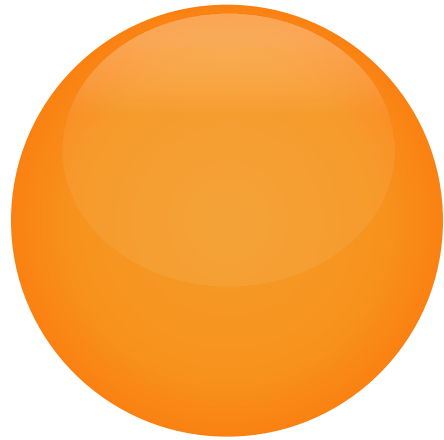


Photograph by Reid Callaway, retrieved from <https://pixels.com/featured/td-stage-concert-night-reedy-river-falls-park-greenville-south-carolina-art-reid-callaway.html>



TEACHING TECHNIQUES:
-DIVERSITY
-GROUP EXERCISES





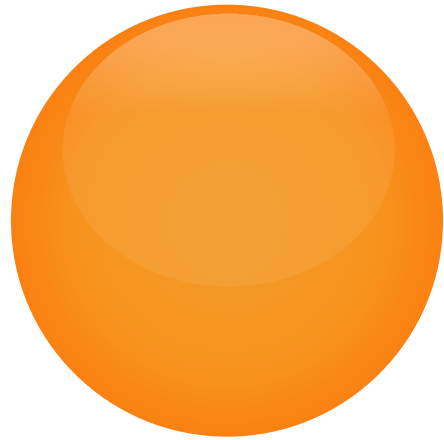
TEACHING TECHNIQUES: -DIVERSITY

People/Place/Times



Teaching technique: Diversity

- Present multiple definitions using text and graphics.
- Include professional work of people from different places, gender, race, and ages.
- Provide historical and contemporary perspectives of subject material.



MULTIPLE DEFINITIONS

Diversity and Critical Thinking



Diversity: Multiple definitions *international*

The condition or fact of being different or varied;
variety:

- *a wide diversity of opinion/ideas*
- *genetic/biological diversity*

The fact of many different types of things
or people being included in something; a range of
different things or people

Definition of “diversity” from the [Cambridge Business English Dictionary](#) © Cambridge University Press

<https://dictionary.cambridge.org/us/dictionary/english/diversity>

Diversity: Multiple definitions *local*



“Remember, inclusion and equity is not instantaneous, nor is it easy. It is a progression of small, medium and large advancements that incrementally improve culture and understanding.”

--Moryah Jackson

Director, Diversity Education, email 5/21/2019

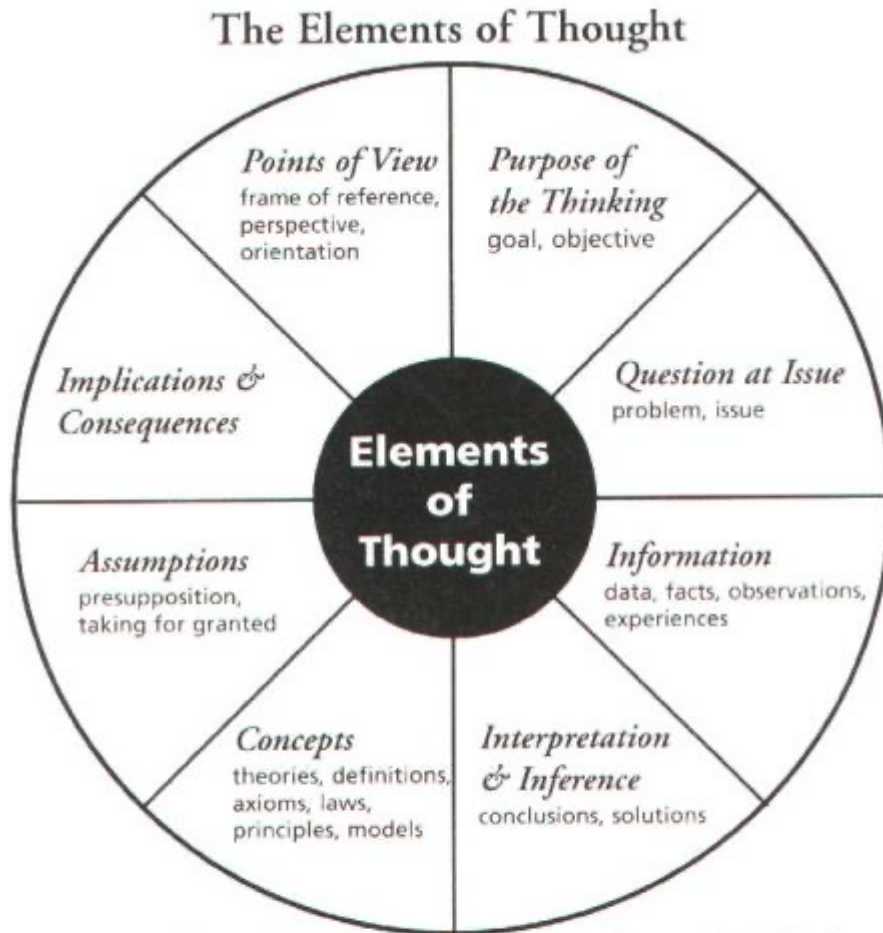
Diversity: Multiple definitions *local and international*

- Critical thinking happens when we think about how we think... we track our own thoughts and decision making processes (Vincent, 2013).
- Critical thinking...the awakening of the intellect to the study of itself (Scriven & Paul, 1987 from the Foundation for Critical Thinking Defining Critical Thinking at <http://www.criticalthinking.org>).



<http://sandykumskov.com/images/think.jpg>

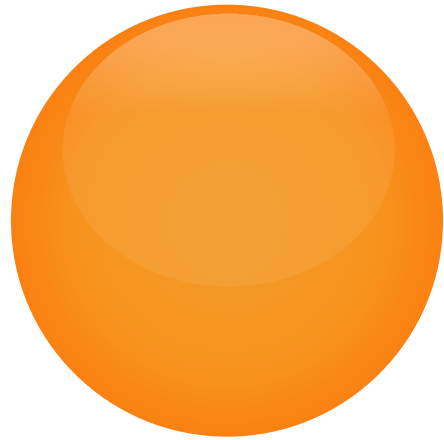
Diversity: Multiple definitions *graphic*



CRITICAL THINKING WHEEL

Used With Sensitivity to Universal Intellectual Standards

Clarity → Accuracy → Depth → Significance
Precision
Relevance



PROFESSIONALS

People/Place/Times



Diversity: Professionals *national/historic*

Mid 1800s Frederick Law Olmsted (1822-1903) and Calvin Vaux (1824-1905)

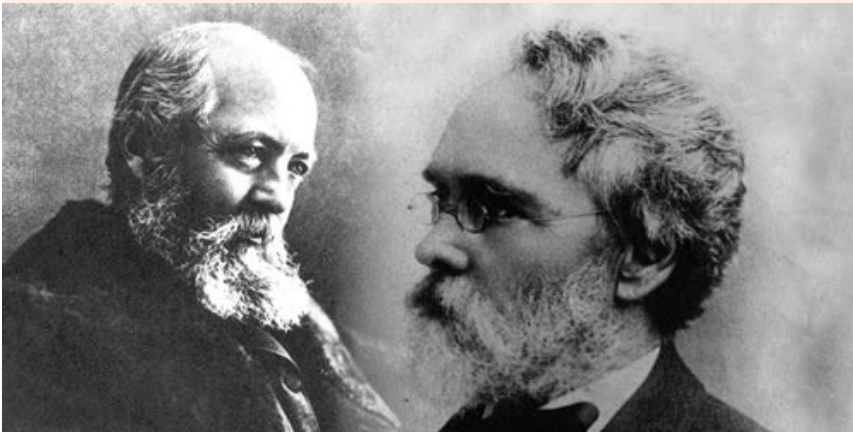
Developed plans for Central Park and Prospect Park in NY City.

Olmsted is the “Father of landscape architecture” (p. 2).

Believed that cities were stressful and that nature (parks) were therapeutic.

Created “natural” landscapes that were highly manufactured.

Created Boston’s ‘Emerald Necklace’ and Olmsted led Biltmore Estate landscape plan.



<http://www.google.com/imgres?q=Olmsted+and+Vaux&num=10&um=1&hl=en&client=firefox-a&rls=org.mozilla:en-US:official&gbv=2&biw=1920&bih=1010&tbnid=2oobvCJWzzMtUM:&imgrefurl=http://www.prospectpark.org/about/history/architects&docid=6N84G5aTRXQCIM&w=500&h=250&ei=kDZVTpybMYXBtgfFpPCPAg&zoom=1&iact=hc&vpx=150&vpy=111&dur=2983&hovh=159&hovw=318&tx=130&ty=109&sqi=2&page=1&tbnh=89&tbnw=177&start=0&ndsp=64&ved=1t:429,r:0,s:0>

Cook, T. W. & VanDerZanden, A. (2011). *Sustainable landscape management*. Hoboken, NJ: John Wiley & Sons.

Diversity: Professionals *local/national*

- Design intent is the designer's vision for a site.



<https://www.srqmagazine.com/srq-daily/2016-03-10/3592> Inside-the-Design-of-Kona-Gray

Kona Gray, Principal EDSA,

EDSA: <https://www.edsaplan.com/>

Fort Lauderdale, FL

Bachelor of Landscape Architecture, University of Georgia



<https://www.asla.org/ContentDetail.aspx?id=49549>

Diversity: Professionals *national*

- Design intent is the designer's vision for a site.



Maya Lin, Maya Lin Studio,
NYC

Age 21, won the design
competition for Vietnam
Veterans Memorial

BA and Masters of Landscape
Architecture, Yale University

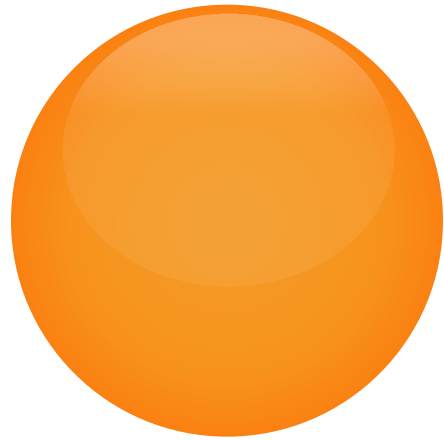
2016: Presidential Medal of
Freedom Award from
President Barrack Obama



HORT 3080

<https://humanities.princeton.edu/event/a-visit-with-maya-lin/>

https://en.wikipedia.org/wiki/Maya_Lin



SUBJECT MATERIAL PERSPECTIVES

Historic/Contemporary 

Diversity: Subject material perspectives

Sustainability historic

United Nations World Commission on Environment and Development created in 1983

Chaired by Gro Harlem Brundtland, prime minister of Norway.



<http://www.google.com/imgres?q=Gro+Harlem+Brundtland&hl=en&client=firefox-a&sa=G&rls=org.mozilla:en-US:official&biw=1920&bih=1010&gbv=2&tbn=isch&tbnid=aD7pIDJh3zFtTM:&imgrefurl=http://news.harvard.edu/gazette/2002/10.03/09-sph.html&docid=E1gzh9kXI7rbcM&w=450&h=295&ei=YUJVTu2nJNOgtge73oWQAg&zoom=1&iact=hc&vpx=968&vpy=259&dur=1579&hovh=182&hovw=277&tx=57&ty=122&page=1&tbnh=135&tbnw=191&start=0&ndsp=68&ved=1t:429,r:17,s:0>

**OUR
COMMON
FUTURE**

THE WORLD COMMISSION
ON ENVIRONMENT
AND DEVELOPMENT

Our Common Future published in 1987.

Claimed three components were essential to sustainable development: healthy environment, economic development, and social justice.

“Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
(1987, p. 8).

The World Commission on Environment and Development (1987). *Our Common Future*. Oxford: Oxford University Press

Diversity: Subject material perspectives

Sustainable landscapes contemporary

2015-Sustainable SITES Initiative SITES® is produced by Green Business Certification Inc. (GBCI)

SITES v2 includes **18 prerequisites and 48 credits** for measuring site sustainability. To achieve certification, projects can earn a total of up to 200 points at the **Certified, Silver, Gold or Platinum** levels.

The rating system is divided into 10 sections, which cover **site context, design and construction, operations, maintenance, education and innovation**.

These strategies cover both **predesign and construction activities** and are tied together through an integrative process.

Program is designed to evolve over time.

Sustainable
SITES
Initiative™

https://www.asla.org/uploadedFiles/CMS/AboutJoin/Copy%20of%20SITESv2_Scorecard%20Summary.pdf

<http://www.sustainablesites.org/certified-sites>

<http://www.sustainablesites.org/about>

Diversity: Subject material perspectives

CT and Socratic method historic/graphic

- Father of philosophy.
- **Questions** were asked to determine logic, ethics, fairness, and constancy.
- Inspired the scientific method (develop a hypothesis and then investigate validity.)



Sculpture by Constantin Brancusi

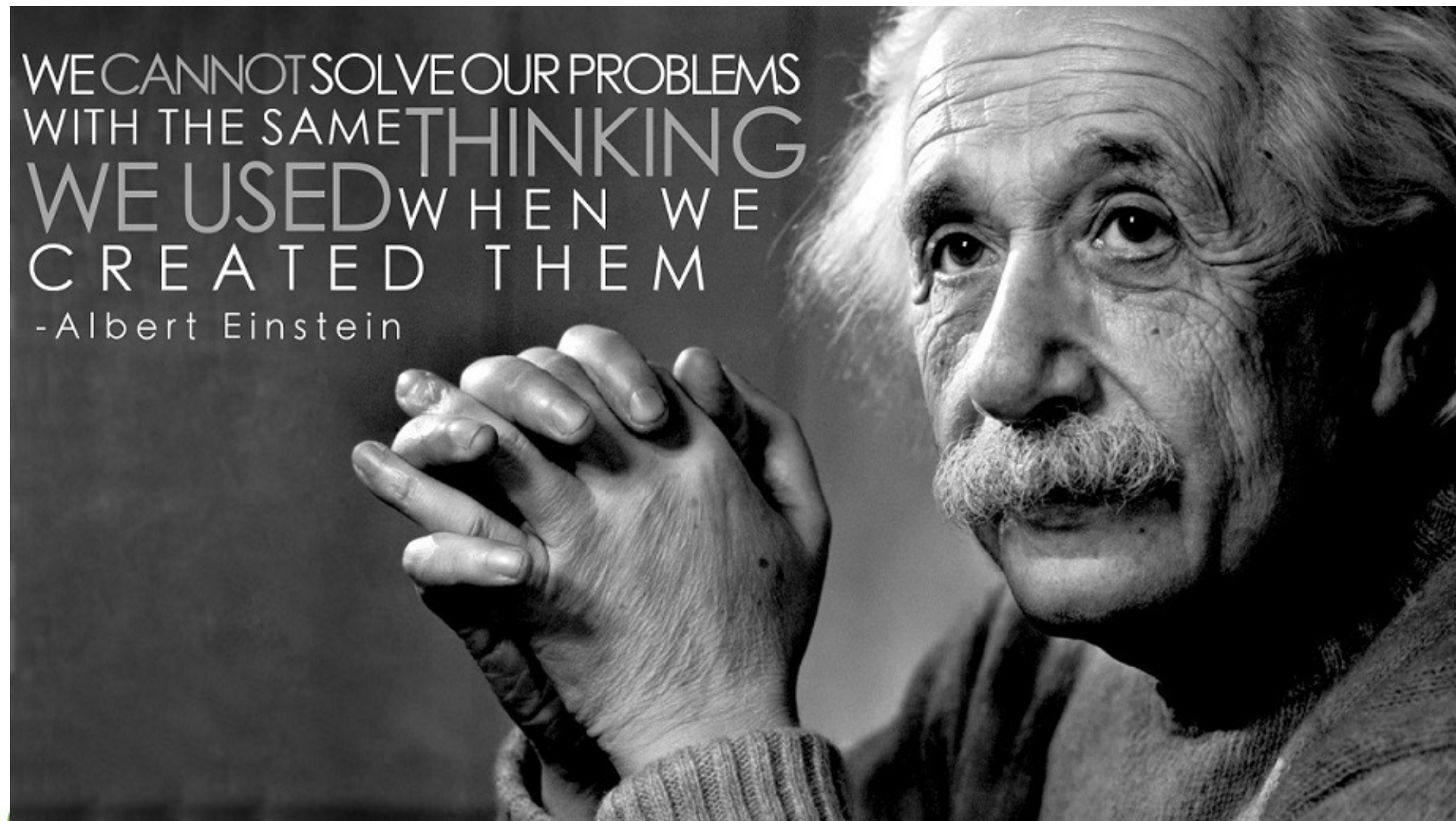
<http://en.wikipedia.org/wiki/Socrates>

<https://plato.stanford.edu/entries/socrates/>

[ps://www.amazon.com/SOCRATES-Translated-Introductory-Huntington-Illustrations/dp/B01DRMUZ8Y](https://www.amazon.com/SOCRATES-Translated-Introductory-Huntington-Illustrations/dp/B01DRMUZ8Y)

Diversity: Subject material perspectives

CT historic/graphic



WE CANNOT SOLVE OUR PROBLEMS
WITH THE SAME THINKING
WE USED WHEN WE
CREATED THEM

-Albert Einstein

Diversity: Subject material perspectives

CT contemporary/graphic

- We question our own purposes, evidence, conclusions, implications and point of view with the same vigor as we question those of others. (Paul Biography by Elder)



Dr. Richard Paul, Foundation
for Critical Thinking

Diversity: Subject material perspectives

CT contemporary/graphic

- Critical Thinkers strive to improve the world in whatever ways they can and contribute to a more rational, civilized society. At the same time, they recognize the complexities often inherent in doing so.



Dr. Linda Elder, Foundation
for Critical Thinking

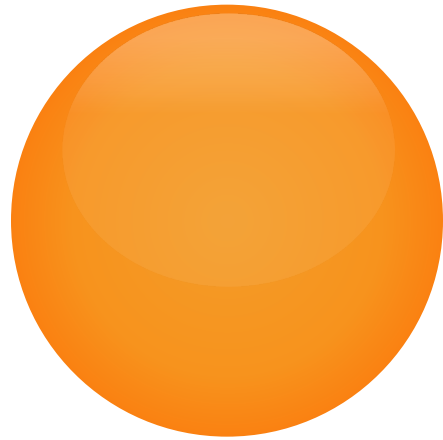
- <http://www.criticalthinking.org/data/pages/14/fd4e6f74cc717ed36a9facc870b8a2e4fe0bd688b279.pdf>
- <https://www.uleth.ca/notice/events/linda-elder-state-critical-thinking-human-societies-today#.XvM3ryhKe2w>

Diversity: Subject material perspectives

CT contemporary local/imagery

- Critical thinking is the pursuit of patterns, trends, and connections (*untangling roots*).
- Rigor is involved to remind oneself to ask questions and investigate sources (*fixing below ground irrigation lines*).
- Open mindedness is helpful as we may end up changing or altering our viewpoint (*a new plant, product, or practice in the landscape!*)

(E. Vincent, HORT 3080)



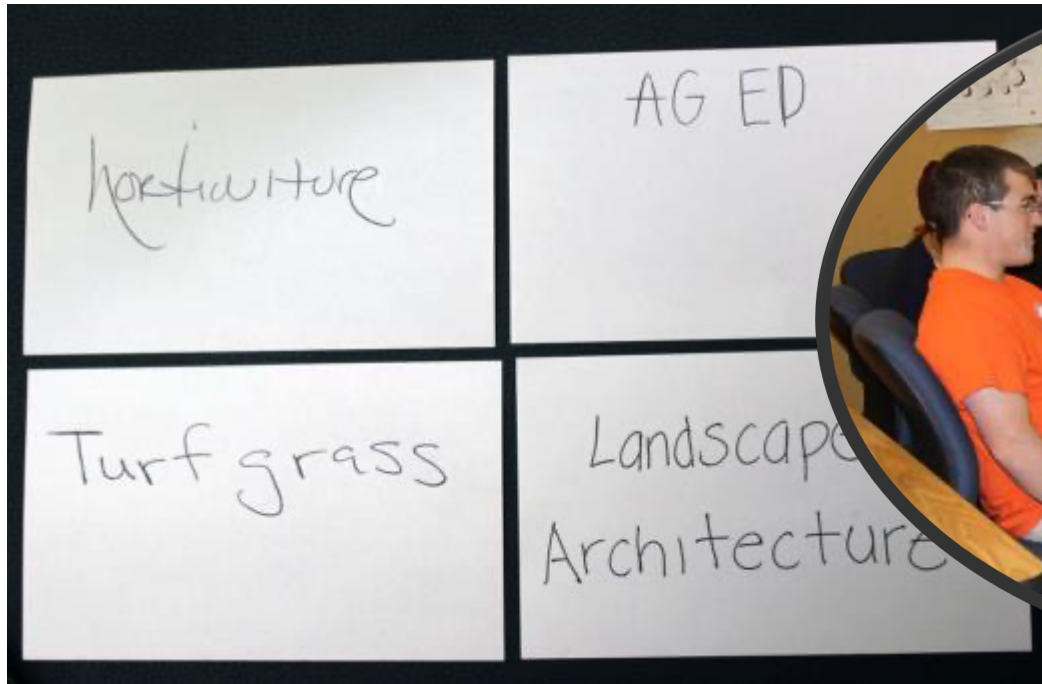
TEACHING TECHNIQUE: -GROUP EXERCISES

Random and fair group formation



Group exercises

- ***Form interdisciplinary teams by mixing majors***
 - *Sort by major, shuffle cards, student rep from various majors select cards for team in full view, no personal names visible*



Group exercises

- Provide clipboards and worksheets to professionalize the experience
- Worksheets contain space for name and major



Group exercises

Group exercise: Sustainable Communications | HORT

Name	Major
1	Architecture
2	Hort
3	Civil Engineering
4	LAHC

State a claim (clear and obvious) made by authors (like a hypothesis) about engagement and/or dialogue:

In order for a group to be successful^{in a dialogue setting} every member must be included and energetically engaged, through maintenance and facilitation

Validity checks (search for truth) using three methods/sources:

1-Experiential (personal or others)

Multi- or interdisciplinary work with conflicting or multiple opinions. (e.g. lab work, architecture projects)

2-Authoritative (professors, .gov; .edu; non-profit organizations)

A contractor who has to deal with ...

2-Authoritative (professors, .gov; .edu; non-profit organizations)

A contractor who has to deal with and help converge ideas from a number of different professions on a daily basis.

3-Disciplined (peer reviewed lit, published surveys and experiments)

Published peer reviewed article on the subject of communication and engagement.

Alternate views/perspectives

Identify people or organizations who may disagree with the claim.

State the source of the view.


- A CEO who wants to have the final say on decisions, despite other opinions
- Control oriented people in positions of power
- A tenured professor who doesn't have Intellectual humility

HORT 3080 Group exercise: Sustainable Garden | CT2

Name	Major	Name	Major
1	He LA	3	EA. HORT
2	LA	4	Hort

Viewpoint from your discipline

Beliefs/claims (clear and obvious) of authors (like a hypothesis):



Be mindful of design process in working with other disciplines.

Methods/sources for checking validity

Experiential (personal or others):

How we feel and know about the claim through our own LA and design experience.

Authoritative (professors, .gov; .edu; non-profit organizations):

Ask professors about personal experience working w. collaboration / local consultants / viewpoints from ^{college} books

Disciplined (peer reviewed lit, published surveys and experiments):

Clemson extension for published surveys.

ASK professors about personal experience working w
collaboration / local consultants / viewpoints from books ^{college}

Disciplined (peer reviewed lit, published surveys and experiments):

Clemson extension for published surveys.

Multiple views: Perspectives (your own or imagined others) that do not support your claim. State the source of the view.

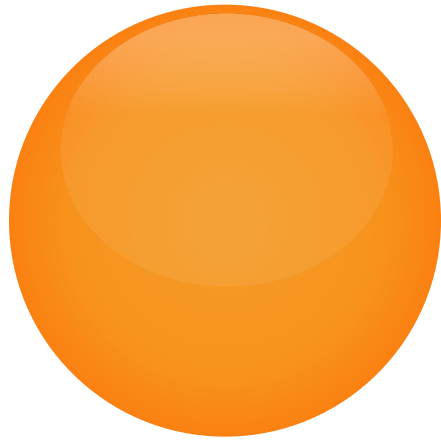


Prestigious design artists in different states or countries.

-they have been so highly regarded, they have "faith" in their design and don't plan to look and listen to outside sources.

Use reverse side if needed

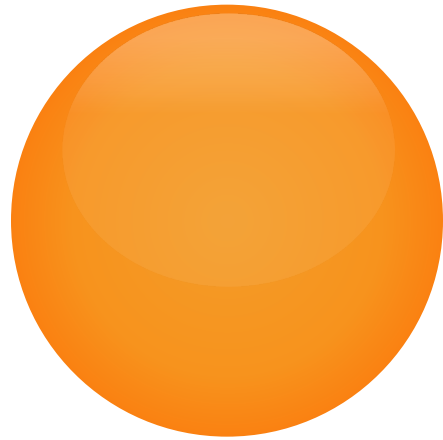




CT COURSE MATERIALS :

- CT INTELLECTUAL TRAITS**
- POSITIVE PSYCHOLOGY**
- ENGAGEMENT**
- DIALOGUE**

Materials to promote critical thinking



CRITICAL THINKING INTELLECTUAL TRAITS

Foundation for Critical Thinking



CT materials: Critical thinking intellectual traits

- Intellectual humility
- Intellectual autonomy
- Intellectual integrity
- **Intellectual courage**
- **Intellectual empathy**
- **Intellectual perseverance**
- Confidence in reason
- **Fairmindedness**



<https://www.pinterest.com/pin/322148179572194734/>

HORT 3080

The Foundation for Critical Thinking

<http://www.criticalthinking.org/pages/critical-thinking-where-to-begin/796>

Test 3 Q#49 student response

Which intellectual trait are you becoming stronger at using or recognizing this semester? Identify and explain.

- *“Fairmindedness. Prior to this class, I would sometimes see another person's viewpoint that was completely different than mine and then look down upon them for thinking a different way. After being in this class this semester, I have truly begun to look at other people's viewpoints as a way of understanding them better. It has truly shown me that everyone is different and experiences different things, which then leads to different viewpoints.”*

Test 3 Q#49 student response

Which intellectual trait are you becoming stronger at using or recognizing this semester? Identify and explain.

- *“Intellectual empathy. Having worked in the role of a service provider for the last six or seven months has really granted me a new lens from both sides of the counter. I realize that I can never really understand what other people are going through so there's no good reason for me to stress them out more. Understanding what other people have issues with and doing what I can to mitigate those issues is one of my favorite aspects of working with customers.”*

Test 3 Q#50 student response

Which intellectual trait do you wish to learn more about and practice?

- *“I would like to learn more about **intellectual perseverance** to learn how to stay true to what I know during difficult times and hardships. I will definitely face more hardships during my life and would love to learn how to remain intellectually strong during these.”*
- *“**Intellectual humility** - having an awareness of the limits of one's knowledge, egocentricism and/or bias.”*

Test 3 Q#50 student response

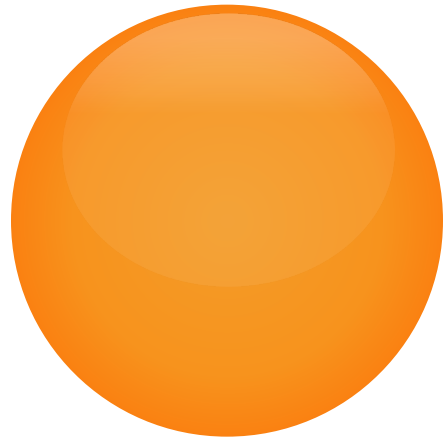
Which intellectual trait do you wish to learn more about and practice?

- *“Intellectual courage. I have always had a hard time expressing my personal claims/intellectual views on something due to fear of rejection or doubt. After taking this class and doing so many critical thinking activities, I believe that the confidence to speak out on things has improved in me.”*
- *“ I would like to learn more about **intellectual perseverance** to learn how to stay true to what I know during difficult times and hardships. I will definitely face more hardships during my life and would love to learn how to remain intellectually strong during these.”*



Community Garden Berkeley, CA

Photo by Ellen Vincent



POSITIVE PSYCHOLOGY

First focus on what is right

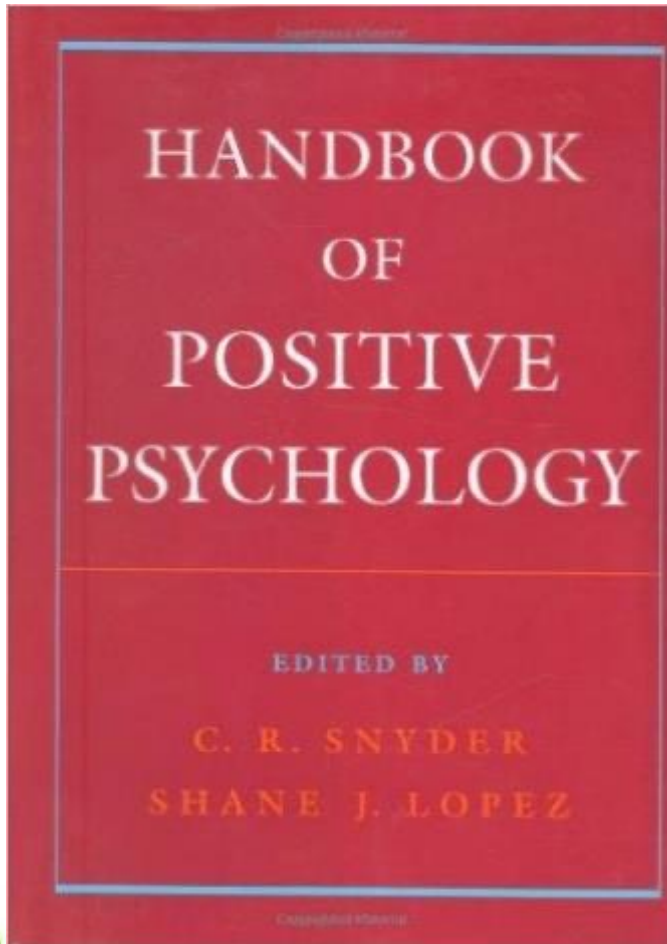


CT materials: Positive psychology

- Positive psychology asks for examples of what is *right* instead of what is wrong. This often identifies peoples' strengths and leads organizers to see healthy functioning (Snyder & Lopez, 2007).
- This does not mean challenges and disappointments are ignored-they are always identified but are not the main focus of the meeting/exchange.

Snyder, C. R. & Lopez, S. J. (2007). *Positive psychology*. Thunder Oaks, CA: Sage Publications.

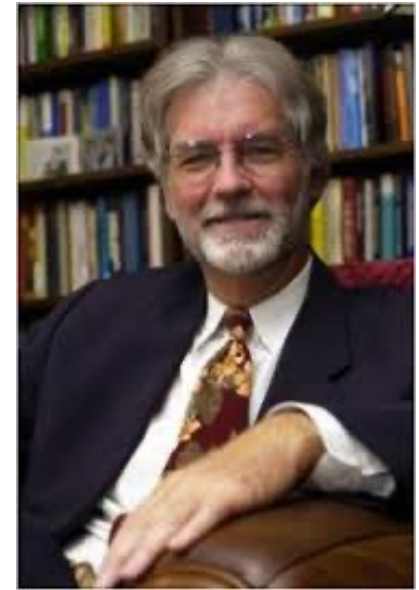
CT materials: Positive psychology and Hope Scale



<http://www.amazon.com/Handbook-Positive-Psychology-C-Snyder/dp/0195135334>

Amazon \$32.33

Rick Snyder and Shane Lopez, Psychology Dept.
University of Kansas

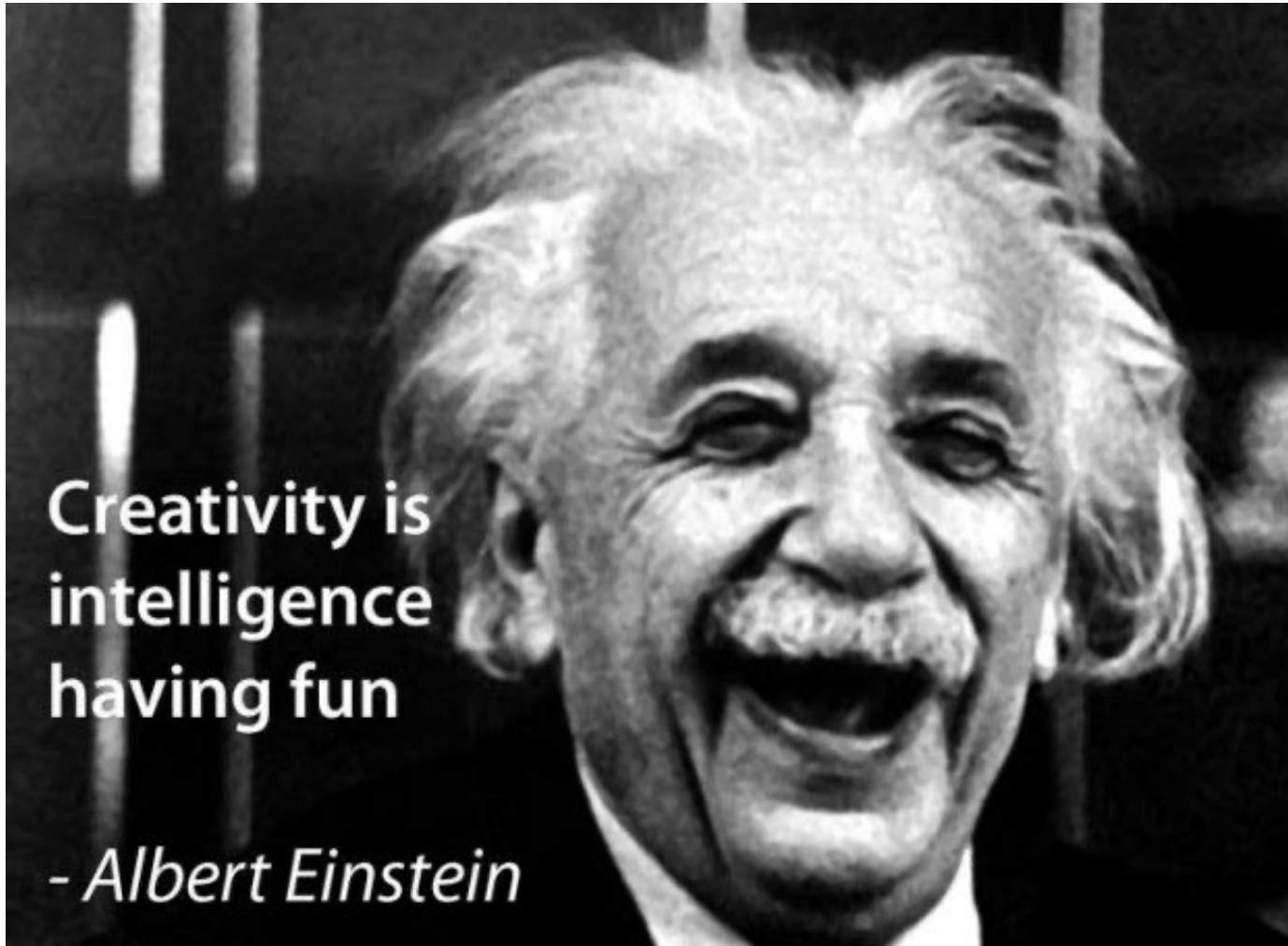


<https://3sunrises.files.wordpress.com/2013/05/c-r-snyder.png>

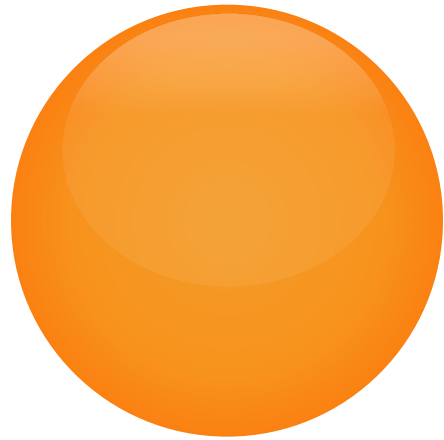


<https://www.crla.net/conference/2013/images/ShaneLopez.jpg>

CT materials: Positive psychology



<http://www.worddesign.biz/wp-content/uploads/2013/12/albert-einstein-quotes-word-nerd-41623.jpg>



ENGAGEMENT

Dr. Frank Fear

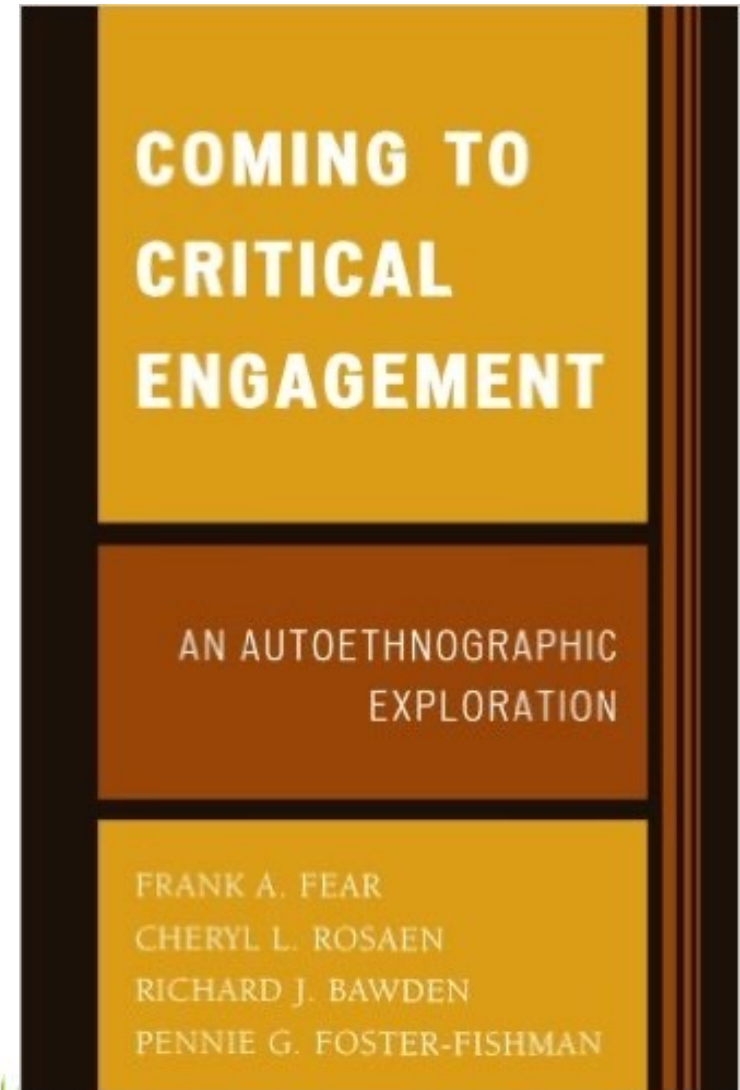


CT materials: Engagement *Dr. Frank Fear*



**Dr. Frank Fear, Professor Emeritus
Michigan State University,
engagement author; Kellogg
consultant**

Amazon \$49.88



<http://www.amazon.com/Coming-Critical-Engagement-Autoethnographic-Exploration/dp/0761834710>

HORT 3080

<https://www.laprogressive.com/author/frank-a-fear/>
<https://www.amazon.com/Coming-Critical-Engagement-Autoethnographic-Exploration/dp/0761834710>

CT materials: Engagement *Dr. Frank Fear*

- ...“Grounded in an ethos of **mutuality, respectfulness, and stewardship**, proceeding through dialogue, and fostering inclusive well being.”
 - Engagement is a way of being- both on campus and off-energized by the norms of engagement.
 - Framed this way, engagement becomes a leadership and management practice.--*Dr. Frank Fear*
 - Be a learner in your group rather than an expert
- Fear, F., et al. (2002). Experiencing engagement: **Stories from the field**. *Journal of Higher Education Outreach and Engagement*, 8(1), 59-74.

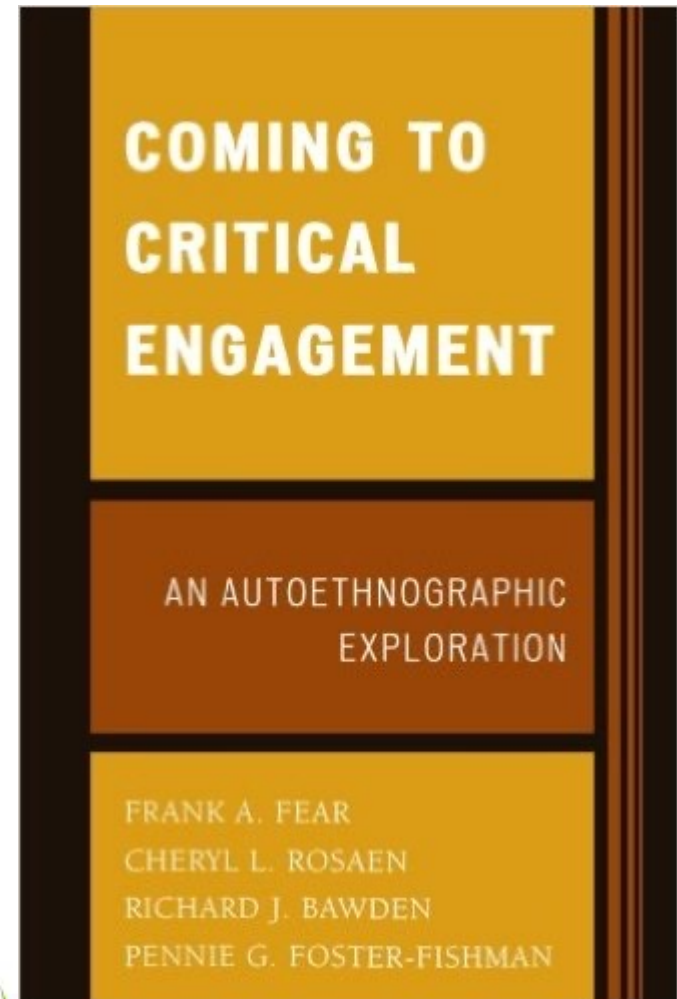


Photo by Ellen Vincent

County Mayo, Ireland

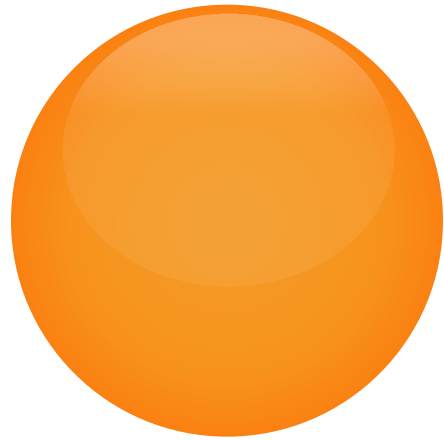
CT materials: Engagement *links to dialogue*

Dialogue is essential to successful engagement.



<http://www.amazon.com/Coming-Critical-Engagement-Autoethnographic-Exploration/dp/0761834710>

HORT 3080



DIALOGUE

Daniel Yankelovich



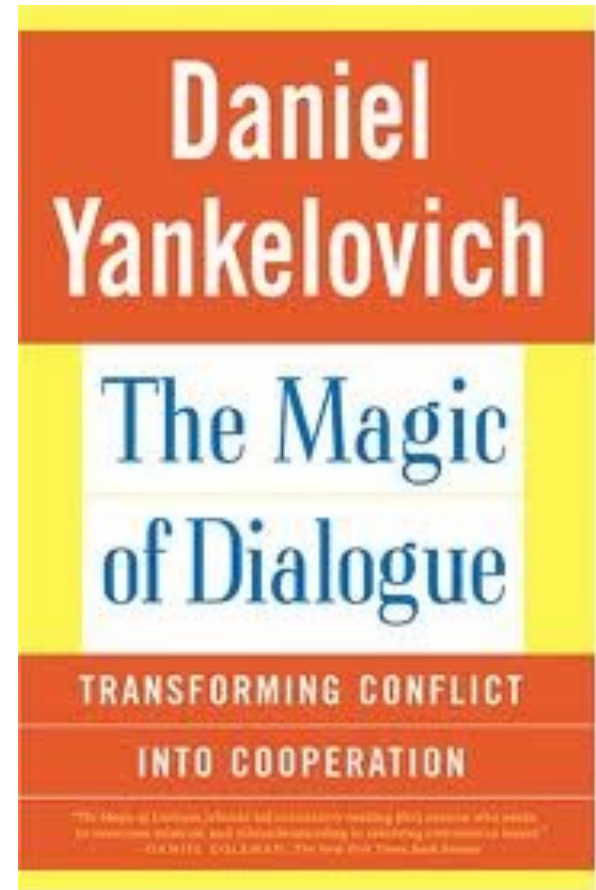
CT materials: Dialogue *Daniel Yankelovich*

<http://www.strategy-business.com/media/image/05309.jpg>



**Daniel Yankelovich
(1924-2017)**

- Graduate School of Arts and Sciences, Harvard University (Rantoul Fellow in Clinical Psychology); Director, UCSD Civic Collaborative, University of California at San Diego
- Recipient, Common Ground Book of the Year Award (for *The Magic of Dialogue*), 1999
- Trustee for 11 major firms & Board of Director on 7 major corporations
- Chairman: The Public Agenda; DYG; Viewpoint Learning



http://www.amazon.com/s/ref=nb_sb_noss_2?url=search-alias%3Dstripbooks&field-keywords=The+magic+of+dialogue

Amazon \$15.99

CT materials: Dialogue: *3 core components*

- **Equality**
- **Empathetic listening**
- **Airing assumptions and not judging them (or the speaker)**



Photo: Brian Zopf

http://www.google.com/imgres?imgurl=http://www.publicagenda.org/files/images/pages/Yankelovich_Claremont_110808.jpg

Yankelovich, D. (1999). *The Magic of Dialogue*, p. 46. New York: Schuster
Video: Jan31, 2012 https://www.youtube.com/watch?v=mgWUjBj_32s

CT materials: Dialogue 3 *core components*

- (3) Bring assumptions into the open: Examine one's own and other participants assumptions. Once exposed (in the open) treat them with respect.

“When your deepest-rooted assumptions about who you are and what you deem most important in life are attacked, you react as if you were attacked personally.” —David Bohm

Yankelovich, D. (1999). *The Magic of Dialogue*, p. 46. New York: Schuster



<http://c.tadast.com/gfx/750x500/sunrise.jpg?1>



<http://globe-views.com/dcm/dreams/storm/storm-04.jpg>

CT materials: *Dialogue vs debate charts*

Dialogue	Debate
Revealing assumptions for reevaluation.	Defending assumptions as truth.
Reexamining all positions.	Critiquing the other side's position.
Admitting that others' thinking can improve on one's own.	Defending one's own views against those of others.

Yankelovich, D. (1999). *The Magic of Dialogue*, pp. 39-40.
New York: Schuster

CT materials: *Dialogue vs debate charts*

Dialogue	Debate
Assuming many people have pieces of the answer and that together they can craft a solution.	Assuming that there is one right answer and you have it.
Is collaborative: participants work together toward common understanding.	Is combative: participants attempt to prove the other side wrong.
About exploring common ground.	About winning.
Listening to understand, find meaning and agreement	Listening to find flaws and make counter-arguments.

Yankelovich, D. (1999). *The Magic of Dialogue*, pp. 39-40. New York: Schuster

CT materials: *Dialogue shared leadership/global*

The Elders
meet in 2007

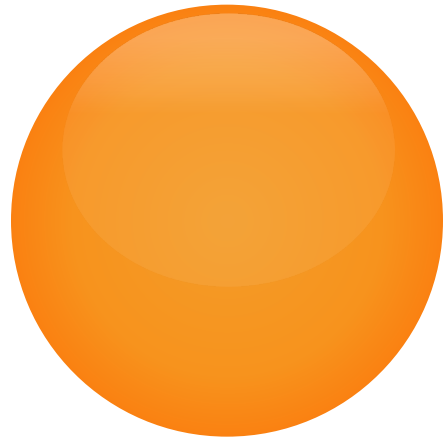


http://desertpeace.files.wordpress.com/2009/09/the_elders.jpg

<http://theelders.org/images/Nelson-Mandela-and-The-Elders.jpg>

CT materials: *Dialogue vs debate group exercise*

- When do you recall experiencing dynamic dialogue?



EXIT SURVEY RESPONSES



Exit survey student responses

What one **belief/thought** has changed or altered as a result of taking this class?

- *“I have become more open to others’ opposing viewpoints on controversial topics.”*

AGRICULTURE EDUCATION

- *“I learned to be open-minded. I have learned to look at things from a different perspective than just my own. There are 2 or more sides to every story.”* TURFGRASS

Exit survey student responses

What one **belief/thought** has changed or altered as a result of taking this class?

- *“I now use empathy when listening to other people’s viewpoints. I now look at a person’s viewpoint with a better understanding of how they feel about an issue.”* HORTICULTURE

Exit survey student responses

What one **belief/thought** has changed or altered as a result of taking this class?

- *“Listen to other people because they have opinions that matter.”* FORESTRY
- *“Being open to listen and plan with the landscape maintenance team during the planning stages.”* HORTICULTURE
- *“That all majors and disciplines are capable of working in a group and learning from each other.”* ANTHROPOLOGY

Exit survey student responses

What one **belief/thought** has changed or altered as a result of taking this class?

- *“Personally, my outlook to the overall design process has shifted to a more sustainable mindset. To get all parties involved in the design process from the beginning will save a lot of hassle on the back end of the install and maintenance.”* ARCHITECTURE

Exit survey student responses

What one **belief/thought** has changed or altered as a result of taking this class?

- *“That I need to [take] into account other peoples thoughts and feelings more.”*
TURFGRASS
- *“I take working in groups [to be] more intriguing and helpful. I get to see how others think.”* HORTICULTURE

Exit survey student responses

What one **practice/behavior** has changed or altered for you as a result of taking this class?

- *“Working in interdisciplinary groups is a relatively new concept for me. Throughout this class my openness to other viewpoints has changed during the duration of this class.”*

ARCHITECTURE

- *“Working in groups and being fair minded with everybody.”* HORTICULTURE

Exit survey student responses

What one **practice/behavior** has changed or altered for you as a result of taking this class?

- *“The ability to think from more than one perspective.”* AGRICULTURAL MECHANIZATION
- *“I am a better critical thinker because of my ability to listen and fair mindedness I learned from this class.”* AGRICULTURAL EDUCATION

Exit survey student responses

What one **practice/behavior** has changed or altered for you as a result of taking this class?

- *“The ability to collaborate with multiple disciplines.”* ARCHITECTURE
- *“Group work”* MARKETING/MGT
- *“I will listen to everyone’s opinions with a more open mind.”* AG EDUCATION

Learning outcomes

- Identify or create rubric items suitable for assessment of critical thinking.
- Explore teaching techniques of diversity and small group exercises that support student understanding of essay rubric items.
- Examine critical thinking materials/concepts of intellectual traits, positive psychology, dialogue, and engagement to help students express themselves.

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CAFLS Excellence in Teaching 2015

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<http://www.clemson.edu/cafls/demo/>



Photo by Craig Mehaffey