

# Back to School with the Community of Inquiry Model

Contact North/Contact Nord

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Terry Anderson, Ph.D.  
Professor Emeritus  
Athabasca University  
[terrya@athabascau.ca](mailto:terrya@athabascau.ca)



# Online Learning Defined By:

- Technology and applications
- Time - self-paced, synchronous, asynchronous
- Quality and preparedness
- Students and teachers net literacy
- Age of students
- PEDAGAGOGY

# All online Learning is not the same!

*Summary of Distance Education Pedagogies*

Generation of distance education pedagogy	Technology	Learning activities	Learner granularity	Content granularity	Evaluation	Teacher role	Scalability
Cognitive-behaviourism	Mass media: Print, TV, radio, one-to-one communication	Read and watch	Individual	Fine: scripted and designed from the ground up	Recall	Content creator, sage on the stage	High
Constructivism	Conferencing (audio, video, and Web), many-to-many communication	Discuss, create, construct	Group	Medium: scaffolded and arranged, teacher-guided	Synthesize: essays	Discussion leader, guide on the side	Low
Connectivism	Web 2.0: Social networks, aggregation & recommender systems	Explore, connect, create, and evaluate	Network	Coarse: mainly at object and person level, self-created	Artifact creation	Critical friend, co-traveler	Medium

Anderson, T., & Dron, J. (2011).

Three generations of distance education pedagogy. *IRRODL* 12(3), 80-97.



Summary of Distance Education Pedagogies

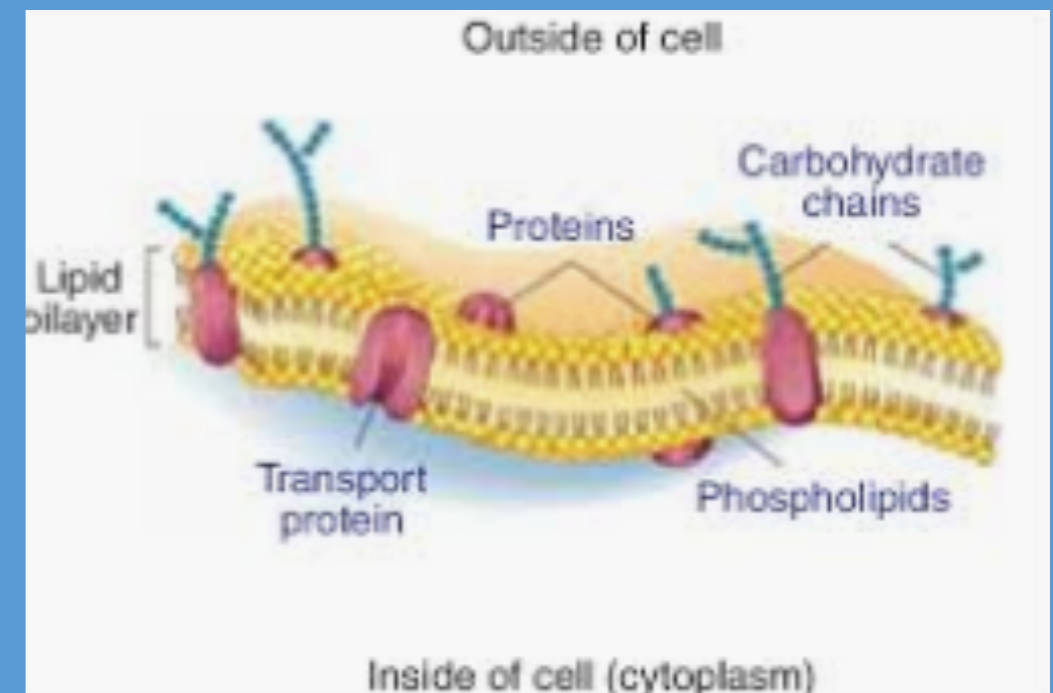
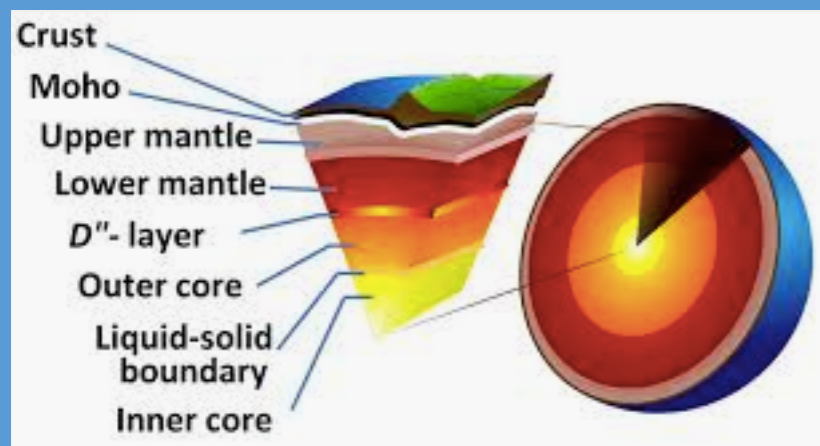
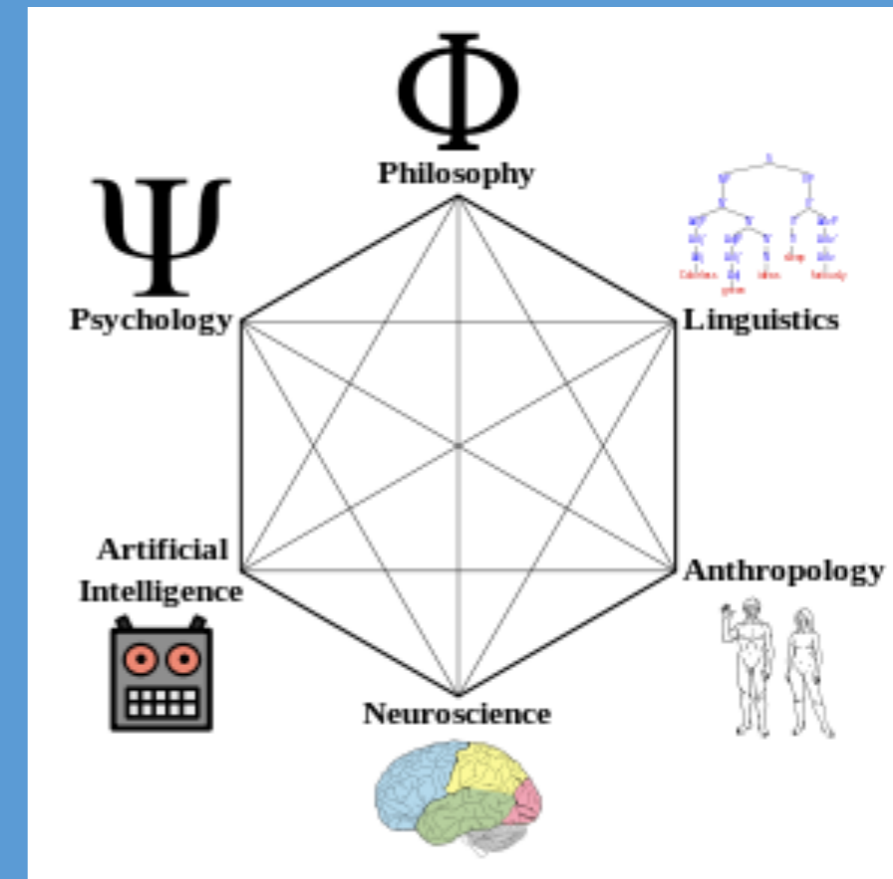
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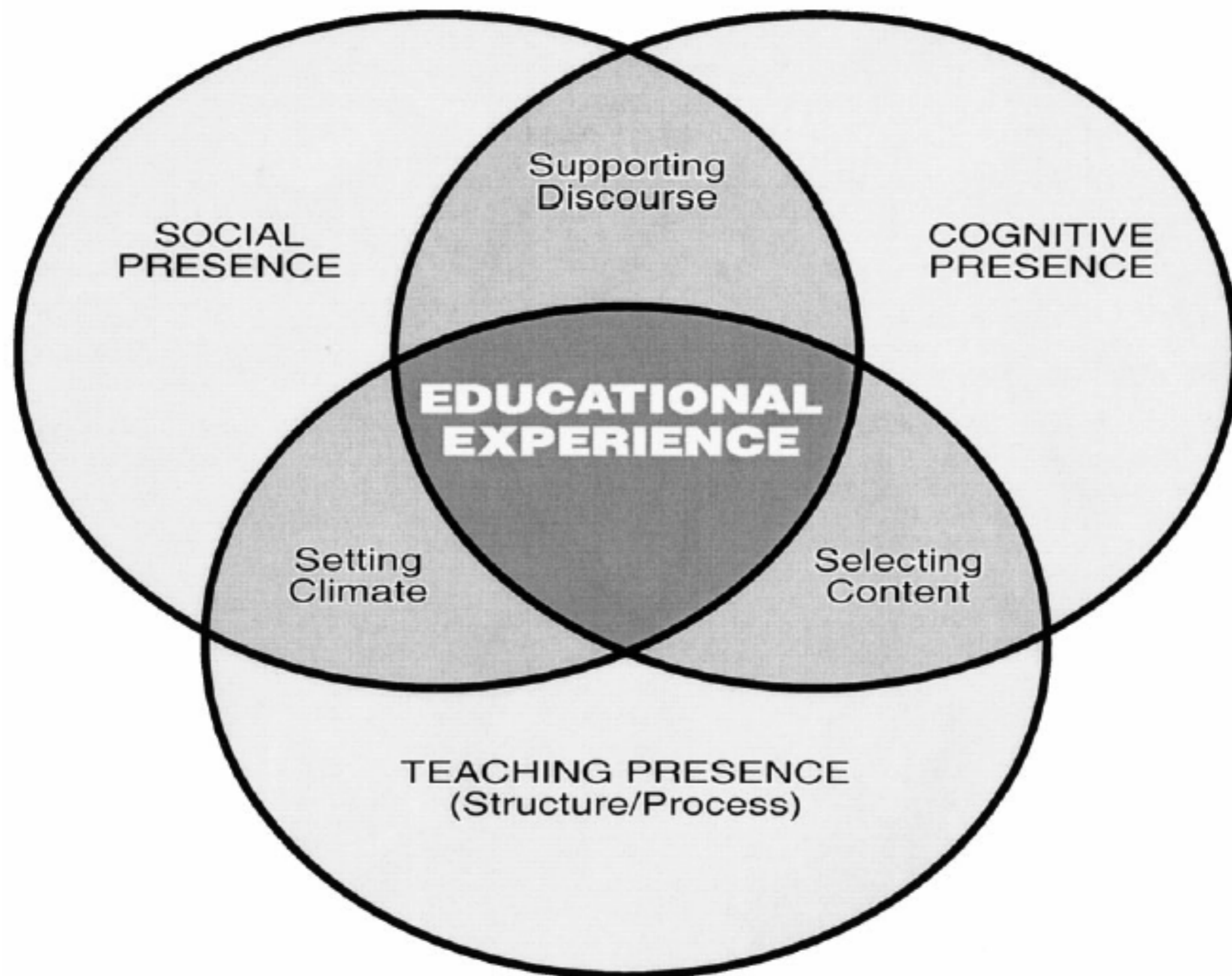
**Community of Inquiry**



# The COI is a Model

- A model is a **simplified** description of complex interactions
  - Graphically Shows critical components
  - Shows relationships amongst these components
- Leads to elaboration and explication





**Communication Medium**

**Figure 1.** Elements of an Educational Experience



The Community of inquiry is:

*“A gestalt view of interacting and interlocking teaching and technology philosophies ..... fostering both difference and connectivity across e-learning communities of research and practice.”*

Parchoma, G. (2011). Toward diversity in researching teaching and technology philosophies-in-practice in e-learning communities.

# Value of Community

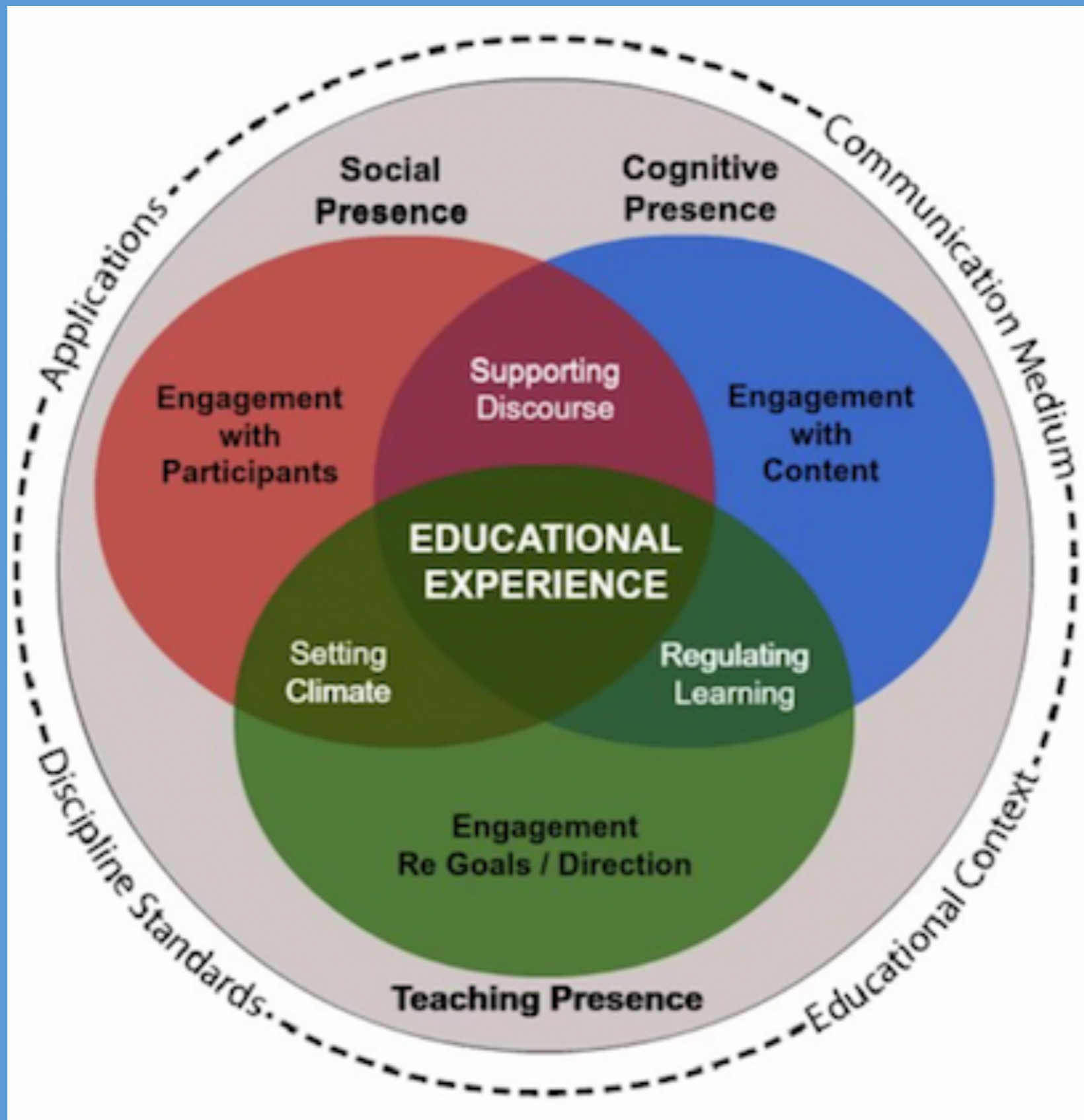
- Generates commitment and belonging
- Building block for future friendships and social capital
- Builds inclusiveness, cultural awareness and appreciation
- Diverse viewpoints enrich problem solving
- Reduces trauma of social isolation in Covid times
- Motivating



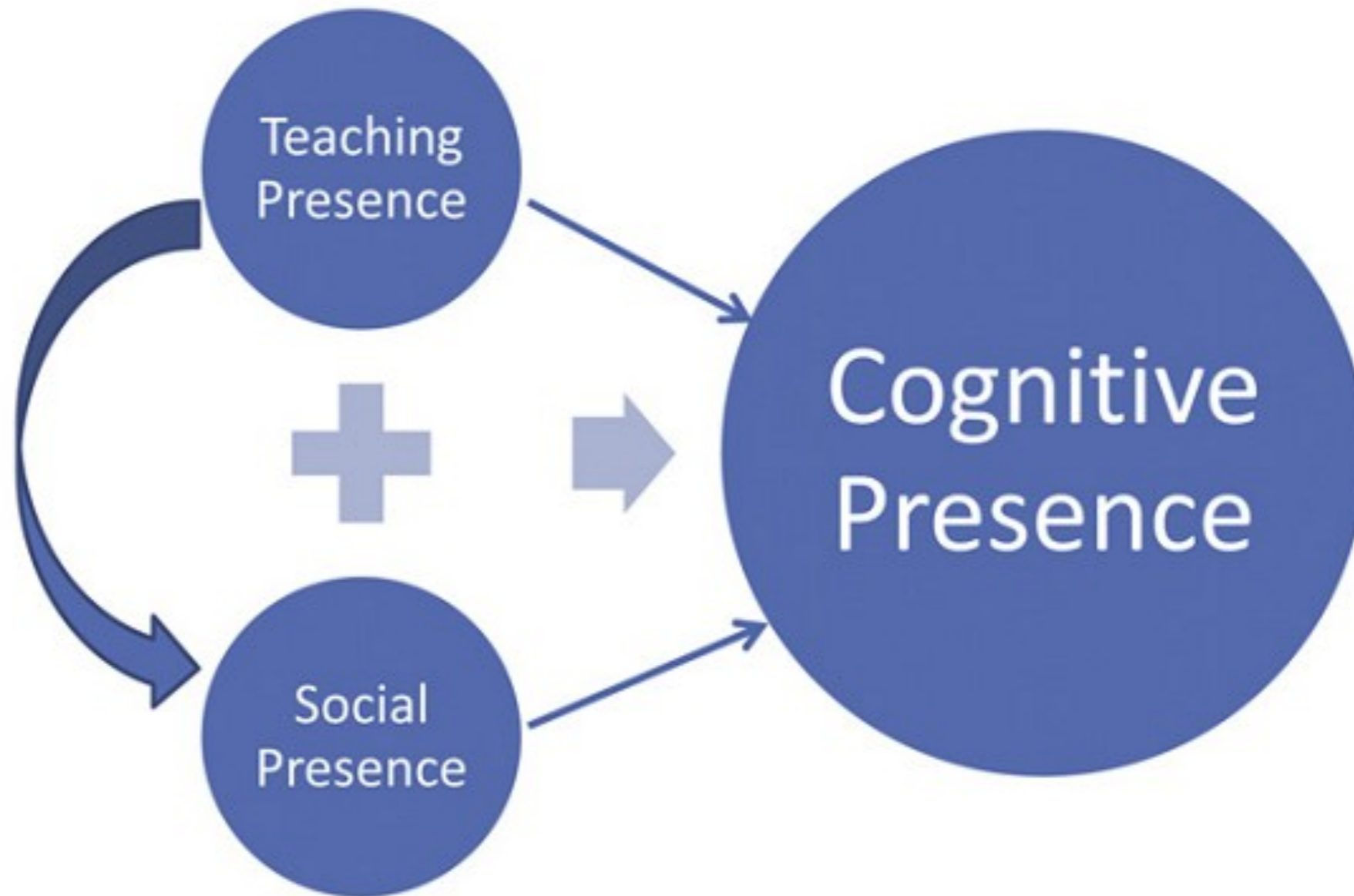
# Community of Inquiry Model

	<b>Design Elements</b>	<b>Student Experience</b>
<b>Social Presence</b>	Communication Group Cohesion Collaboration	Valuing of Learning Opportunity to Express Views Encouraging Collaboration
<b>Cognitive Presence</b>	Challenge or question Exploration of problem Proposing solutions Resolution	Sense of Puzzlement Information Sharing Connecting Ideas Apply New Ideas
<b>Teaching Presence</b>	Instructor Guidance Building Understanding Motivating	Defining and Initiating Discussion Topics Sharing Personal Meaning Focusing Discussion

Garrison, D. R., Anderson, T., & Archer, W. (2000).  
Critical inquiry in a text-based environment:  
computer conferencing in higher education.  
The Internet and Higher Education, 2 (2-3), 87-105



# COI Overview



*Figure 2. Relationship between teaching, social, and cognitive presences (Shea & Bidjerano, 2010).*

# COI Model:

- “has become a robust guideline for researchers .... to explore tracings and evidence of interaction and learning in online courses”
- A guide for instructors to make informed educational decisions
- Most cited research model in online and blended education
- 1999 article cited 6,061 times by researchers (Google Scholar Aug. 2020)

Castellanos-Reyes, D. (2020) 20 Years of the Community of Inquiry Framework. *TechTrends* **64**

# Social Presence

- Social presence is defined as "the ability of participants in a community of inquiry to project themselves socially and emotionally, as 'real' people (i.e. their full personality), through the medium of communication being used"



# Social Presence

“Social presence has been consistently linked to positive learning outcomes has been consistently linked to numerous positive outcomes.

- recent meta-analytic evidence from Richardson et al. (2017) shows that when online students perceive greater social presence within their online classrooms, they experience greater satisfaction ( $\rho = .56$ ) and perceived learning ( $\rho = .51$ ).
- social presence fosters intentions to take future online courses (Reio & Crim, 2013),
- persistence (e.g., Berger & Milem, 1999),
- motivation to participate (Mazzolini & Maddison, 2007),
- student performance (e.g., Hughes, et al 2008).”

Andel, S. A., et al. (2020). Do social features help in video-centric online learning platforms? A presence perspective. *Computers in Human Behavior*, 106505.

# Social Presence Indicators

<b>Cohesive Behaviours</b>	Vocatives
	Addresses or refers to the group using inclusive pronouns
	Phatics, salutations
<b>Interactive Behaviours</b>	Continuing a thread
	Quoting from others' messages.
	Referring explicitly to others' messages.
	Asking questions
	Complimenting, expressing appreciation
	Expressing agreement
<b>Affective Behaviours</b>	Expression of emotions
	Use of humor
	Self-disclosure

# Wake Up Activity!!!!

- Use the question box to type in an activity or technology that you are thinking of using (or have used) to stimulate social presence at the beginning of class.

# Stimulating Social Presence

## Teacher:

Humour

Personal revelations

Emoticons

Video

Audio and/or video feedback

Personnel messages

Profile

## Student:

Profiles

'Question of the day'

Peer introductions

Collaborative projects

Asynch user comments alongside video

Contextualize the idea or theory to their real-life context

See also great list of activities at <https://oneheglobal.org/equity-unbound/>

## **Good Practices in Undergraduate Education**

- 1. Student-teacher contact,**
- 2. Cooperation among students,**
- 3. Active learning,**
- 4. Prompt feedback,**
- 5. Time on task,**
- 6. Communicate high expectations,**
- 7. Respect diverse ways of learning,**

Chickering and Gamson's (1987) widely cited

“Seven Principles of Good Practice for Undergraduate Education,” <sup>ap</sup>



## Summary of Instructional Activities for CoI

Seven principles of good practice for the online environment	CoI framework presences	Instructional activities
Student-teacher contact	Social presence	<ul style="list-style-type: none"> <li>• Create a “Meet Your Classmates” section of your course where you and students introduce yourselves to one another (Richardson, Ice, &amp; Swan, 2009).</li> <li>• Develop initial course activities (e.g., ice breakers) to encourage the development of swift trust (Peacock &amp; Cowan, 2016; Richardson et al., 2009).</li> <li>• Model and encourage the use of verbal immediacy behaviors in interactions with students (Richardson et al., 2009).</li> </ul>

	Cognitive presence	<ul style="list-style-type: none"> <li>• Identify big ideas you want students to take away from your course and develop major course activities around their assessment (Richardson et al., 2009).</li> <li>• Identify important knowledge, skills, and attitudes students should learn and develop additional course activities around their assessment (Richardson et al., 2009).</li> <li>• Provide multiple representations of the knowledge you want students to learn and multiple activities for practicing desired skills (Richardson et al., 2009).</li> <li>• Encourage experimentation, divergent thinking, and multiple perspectives in online discussion through provocative, open-ended questions (Richardson et al., 2009; Stephens &amp; Roberts, 2017).</li> <li>• Require discussion summaries that identify steps in the knowledge creation process (Richardson et al., 2009).</li> <li>• Use peer review of discussion postings to shape responses (Richardson et al., 2009; Stephens &amp; Roberts, 2017).</li> </ul>
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Fiock, H. (2020). Designing a community of inquiry in online courses. *IRRODL* 21(1), 135-153.

# Collaborative Work builds Social Presence

- Helps students develop their personal networks
- Teaches soft skills, interpersonal and social skills
- Improves learning product quality
- Enhances students net skill and literacy
- BUT:
  - Is often time consuming
  - Students fear 'social loafing'
  - Creates dependencies (time, tech) that students must overcome themselves

# Technologies to Enhance Social Presence

- Web Conferencing
- Video/audio discussion
- Video sharing – Flip Grid
- Profiles



## SOCIAL PRESENCE IN ONLINE LEARNING

The screenshot displays a video player interface. The video content shows a chef in a white uniform and glasses, standing in a kitchen with a white subway tile backsplash and a green accent wall. He is holding a small object in his hands. The video player includes a progress bar at the bottom left showing 0:42, a volume icon, and a YouTube logo at the bottom right. To the right of the video player is a comment section with five comments, each preceded by a colored circular icon:

- A** I've never eaten falafel, but I've only heard good things about it.
- J** The falafel is the important part!
- P** Not a big fan of meat, excited to learn about falafel!
- S** I love falafel!
- P** Clutter = confusion, good tip!

Below the comments is a row of reaction icons (heart, thumbs up, exclamation mark, thumbs down, question mark, sad face) and a "140" character count. At the bottom of the comment section is an "Enter Comment" text box and a "Post @ 0:42" button.

*Figure 1. A screenshot of the onQ platform with seeded comments.*



# Perusall.com

The screenshot displays the Perusall.com interface. At the top, the browser address bar shows the URL: `app.perusall.com/courses/perusall-history-demo-course/juvenile-delinquency-and-the-comic-b...`. The page header includes the Perusall logo, navigation breadcrumbs (Perusall history demo course > Juvenile Delinquency and The Co...), and utility icons for font size, image, page number (Page 1), and help.

The main content area is divided into three sections:

- Learning Objective:** The goal of this unit is to consider how a worried generation of parents, experts, and government officials thought about the relationship between violence in the media and juvenile delinquency. The primary source documents will show why a great many Americans believed that culture caused crime, as well as the arguments against this assumption. They also will suggest how the comics industry answered its critics by instituting self-censorship.
- Introduction:** Throughout American history, controversies have emerged regarding the effects of new media on the nature of social order and especially the well-being of children. This was particularly true of the twentieth century, when cheap forms of entertainment like amusement parks (Coney Island, for example), movies, television, comic books, and computer games seemed to have a serious effect on children and their behavior. Behind these controversies lay important and critical questions. Did the depiction of socially disapproved and/or criminal and violent behavior have an immediate effect on young and unformed personalities? Would young people copy the scandalous behavior that was so often the subject of novels, films, and other cultural media? Would they copy the crime in crime comics? If this was a danger, and if commercial culture validated depictions of disapproved behavior, who, if anyone, had the right or duty to regulate this culture? Was parental disapproval sufficient? Should government pass censorship laws? Should the entertainment industries be compelled to regulate themselves? And if some sort of regulation emerged, was this a serious attack on free speech and commerce? The early 1950s saw an extraordinary uproar about a rise in juvenile delinquency in the United States. To a broad section of the public—including sociologists,

A copyright notice is visible at the bottom of the page: "Copyright © Bedford/St. Martin's. Distributed by Bedford/St. Martin's. Strictly for use with its products. Not for redistribution." A label "BDC-Z-1" is also present.

On the right side, a chat window titled "Current conversation" is open, showing a user named "yiuyiyi" with a "+49" notification. The chat interface includes a text input field with a placeholder: "Enter your comment or question and Mention a friend by typing @. Add ha typing #."

The left sidebar contains navigation options: Perusall histor..., Course home, Gradebook, Notifications, Notes, Add to my calendar, Readings, Library (with "Juvenile Delinquency ..." selected), Assignments (with "Aug 24: Juvenile Delin..." selected), Chats, Groups (with "Announcements" and "General discussion" listed), One-on-One (with "Jefferey Kovacek" listed), and Hashtags.

[Building Community in Asynchronous Online Higher Education Courses Through Collaborative Annotation](#)

B Adams, NS Wilson - Journal of Educational Technology Systems, 2020



# Teaching Presence

- *“The design, facilitation and direction of cognitive and social processes for the purpose of realizing personally meaningful and educational worthwhile learning outcomes.”*
- Lack of TP is major cause of course breakdown

Category	Indicator
<b>Instructional design &amp; organization</b>	Setting curriculum
	Designing methods
	Establishing time parameters
	Utilizing medium
	Netiquette
	Macro-level and personal comments about course content

Category	Indicator
<b>Facilitating discussion</b>	Identifying areas of agreement/disagreement
	Seeking to reach consensus/understanding
	Encouraging, acknowledging, reinforcing contributions
	Setting climate for learning
	Drawing in participants, prompting discussion
	Assess the efficacy of the process

Category	Indicator
<b>Direct Instruction</b>	Present content
	Focus the discussion on specific issues
	Summarize the discussion
	Confirm understanding through assessment and explanatory feedback.
	Diagnose misconceptions
	Inject knowledge from diverse sources, e.g., textbook, articles, internet, personal experiences

# Teaching Presence

Correlated with perception of learning and learner satisfaction:

	Satisfaction	Learning
Instructional design	.64	.60
Facilitating discourse	.61	.58
Direct instruction	.63	.61


*Shea, Pickett, & Pelz (2003) A FOLLOW-UP INVESTIGATION OF "TEACHING PRESENCE" IN THE SUNY LEARNING NETWORK. JALN 7(3)*

# Growing Teaching Presence


- Being there - Presence!
- the teacher models effective problem solving, provides constructive feedback, offers probing questions and otherwise actively facilitates tasks so that students can witness scholarly and ethical thinking in action.
- Vast quantities of online resources provide easy ways for both students and teachers to design custom learning paths/experiences





# Assessment Voice Marking using Adobe Connect

component of this assignment is a review of the data analysis strategies available for the research methods selected in the second component of this assignment. 

## *Review of Assignments 1 and 3*

The preliminary steps in designing a research proposal are discussed in Creswell (2003) and are exemplified as follows: 

- assess the knowledge claims brought to the study
- consider the strategy of inquiry that will be used
- identify specific methods (of data collection) to be used (p.5) 

In assignment #1 we had to choose two paradigms that we believed we could perform research in. These choices were based on our own beliefs about how we see the world and how we could study the world.  Guba and Lincoln (1994) state that the basic beliefs that define inquiry

**Ice, P., Curtis, R., Phillips, P., & Wells, J. (2007). Using Asynchronous Audio Feedback to Enhance Teaching Presence and Students' Sense of Community. *Journal of Asynchronous Learning Network*, 11(2)**

## Wake Up Activity #2 !!!!

In the text box tell us how you plan to enhance teaching presence in your online classroom.

# Cognitive Presence

- *“The extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication.”*

# Cognitive Presence

- “An awareness of the critical thinking and inquiry dynamic is an essential metacognitive ability that encourages students:
  - to approach a problem strategically and
  - actively seek out sources of knowledge,
  - discover biases,
  - sift through the increasingly large quantities of information now available, and
  - formulate and defend their own intellectual positions.” p. 96 Garrison et al. 2000

# Cognitive Presence Indicators

Categories	Indicators
Triggering event category	Sense of puzzlement, Recognize problem
Exploration category	Information exchange, Divergence, Suggestions, Brainstorming, Intuitive leaps
Integration category	Connecting ideas, Applying new ideas, Solutions, Synthesis
Resolution category	Apply, Test, Defend



# Activities to support cognitive presence

In groups 4-6 using teaching presence

- (1) **communicating assignment expectations** (triggering event),
- (2) having students reflect individually and share their findings (exploration),
- (3) having group discussion and analysis (integration), and
- (4) having **students post their group's findings** (resolution)."

Design  
activity direct  
instruction

Assessment

Students enact  
teaching presence

# Tools to Enhance Cognitive Presence

- Concept Maps
- Prompted worksheets (individual or group)
- Class sharing of Projects
- Debates
- Presentation/discussion of applications in student context
- Wikis, Google Docs
- Response Labels to posts ie – ‘refutes’ ‘adds example’ ‘clarification’ etc

# Tools to Enhance COI

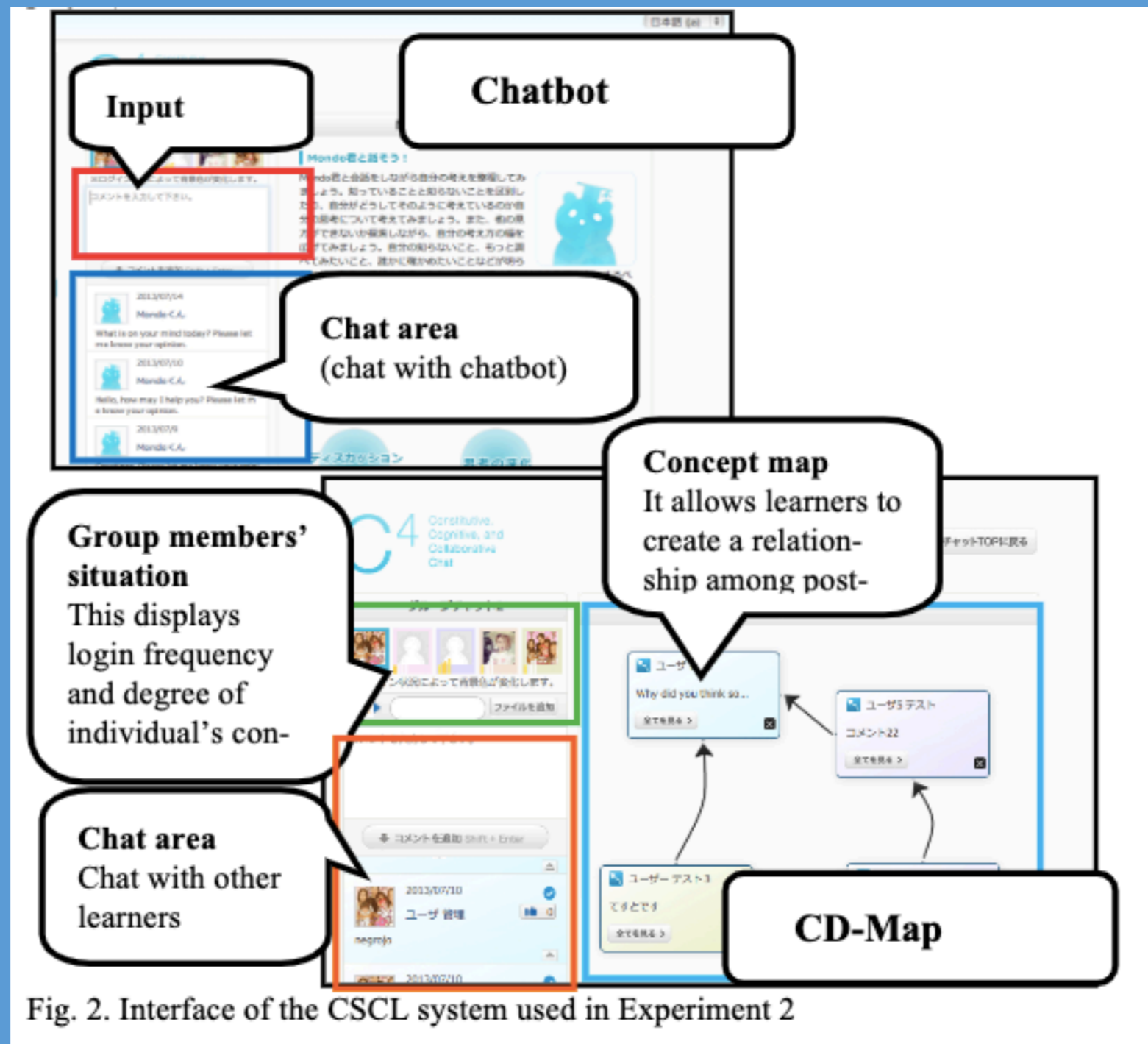
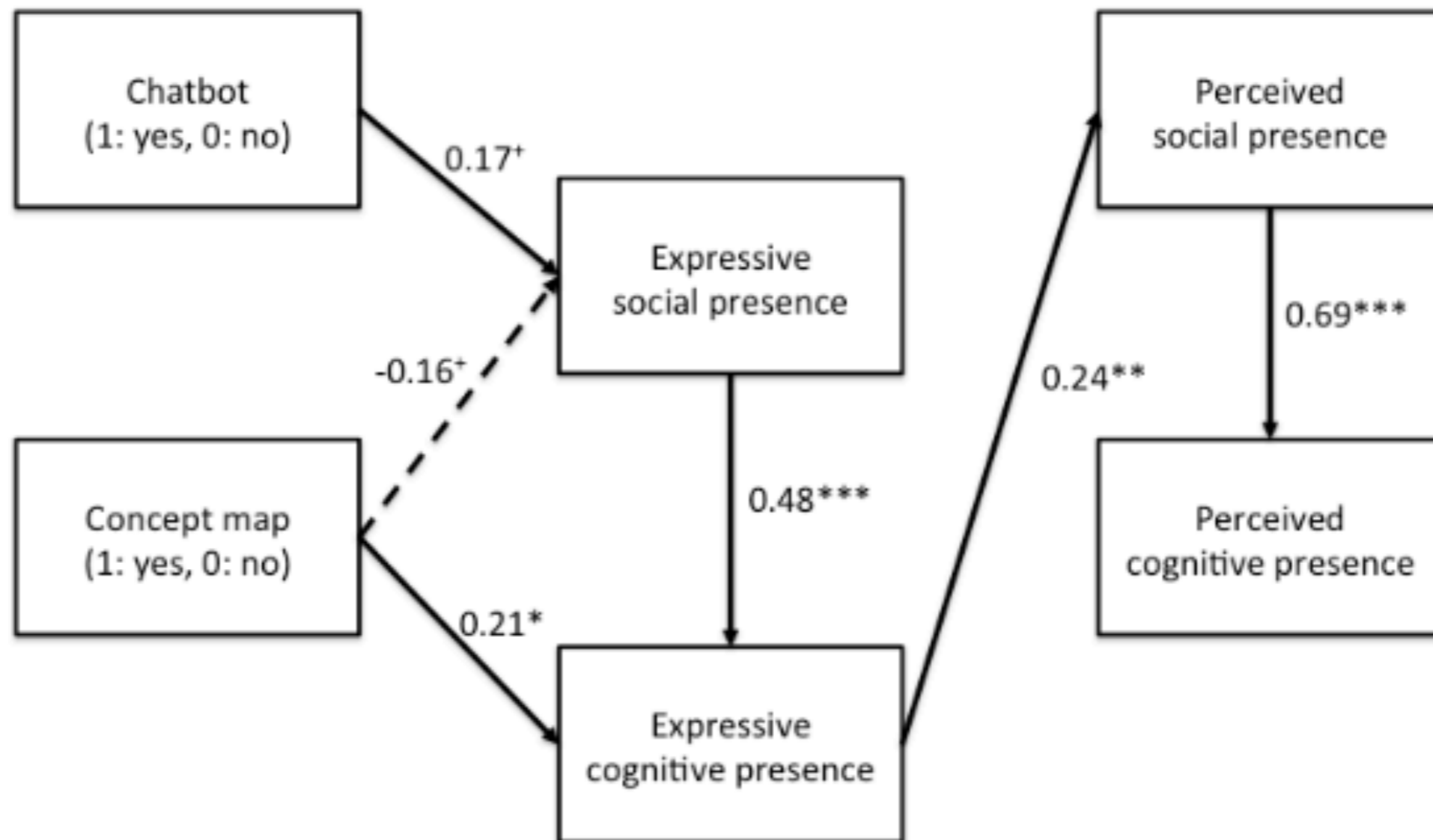


Fig. 2. Interface of the CSCL system used in Experiment 2

Yamada, M., Goda, Y., Matsukawa, H., Hata, K., & Yasunami, S. (2014, August). What psychological factors enhance a language learning community? Toward effective CSCL design for language learning based on a Col framework. *International Conference on Web-Based Learning* (pp. 43-55). Springer, Cham.



$\chi^2(8) = 2.326, p = 0.969$

RMSEA = 0.000

CFI = 1.000 TLI = 1.096

\*\*\*:  $p < 0.001$ , \*\*:  $p < 0.01$  +:  $p < 0.1$

Yamada, M., Goda, Y., Matsukawa, H., Hata, K., & Yasunami, S. (2014, August)

What psychological factors enhance a language learning community?

Toward effective CSCL design for language learning based on a Col framework.

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## Wake Up Activity #3 !!!!

How do you stimulate Cognitive Presence in your classes?



# Assessing the COI in your classroom:

## 36 Likert scale Items

### *Community of Inquiry Survey Instrument (draft v14)*

#### *Teaching Presence*

##### *Design & Organization*

1. The instructor clearly communicated important course topics.
2. The instructor clearly communicated important course goals.
3. The instructor provided clear instructions on how to participate in course learning activities.

Swan, K., Shea, P., Richardson, J., Ice, P., Garrison, D. R., Cleveland-Innes, M., & Arbaugh, J. B. (2008). Validating a measurement tool of presence in online communities of inquiry.

# Why only three presences?

## On the N<sup>th</sup> presence for the Community of Inquiry framework

Kadir Kozan <sup>a</sup>  , Secil Caskurlu <sup>b</sup> 

Autonomy Presence?

Learner presence?

Technical Presence?

Emotional presence?

Teacher social presence

# Applying the COI - Best Practice – Teacher education

- “Teacher Educator Technology Competencies- (TETCs)” PD Program are guided through an iterative, five-step process:
- 1. Pose an instructional Problem
- 2. Analyze Your Practice
- 3. Consider Tools of Enhancing Your Practice
- 4. Create New Approaches
- 5. Share Your New Ideas and Revise.

Foulger, T. S., Graziano, K. J., Schmidt-Crawford, D., & Slykhuis, D. A. (2017). Teacher educator technology competencies. *Journal of Technology and Teacher Education*, 25(4), 413-448.

# Assessing COI in action

- “when participants study TETC 7 ... they use the Community of Inquiry frame-work developed by Garrison, Anderson, and Archer (2000) to evaluate an online experience in their course. Then they revise the experience by applying the social, cognitive, and teaching presences as defined by the framework”.
- Foulger, T. S., Graziano, K. J., Schmidt-Crawford, D., & Slykhuis, D. A. (2017). Teacher educator technology competencies. *Journal of Technology and Teacher Education*, 25(4), 413-448.

# Developing Your Teaching Presence – Subject Matter Expert

- Keeping current yourself
  - Developing your professional networks
    - Filtering and recommending ideas and solutions
    - Your blog and social media contributions
  - Subscribing to Journals – notably [www.irrod1.org](http://www.irrod1.org)



# Teaching presence in a Life Long Learning Era

- Learners of today “used to work for someone else, but will increasingly work for themselves and instead of serving as functionaries in the achievement of purposes set by others, they will increasingly set purposes for themselves”

Richard Sampson, 2005

- Does the COI model lead to and sanction teacher dependency?

**Table 1: Benefits and Challenges of CoI to Understanding Technology-Enabled Learning**

<b>Challenges</b>	<b>Benefits</b>
Lack of Technical Infrastructure	Collaboration
Design	Increased Accessibility/Flexibility
Cyber Malice	Increased Interaction
Lack of Skill Set/Support and Training	Enhanced Learning
Lack of Student Motivation/Participation	Social Presence
Buy-in (student)	Student Engagement
Buy-in (faculty)	Open Communication
Buy-in (administration)	Group Cohesion

Cleveland-Innes, M., Gauvreau, S., Richardson, G., Mishra, S., & Ostashevski, N. (2019). Benefits and Challenges of Technology-Enabled Learning using the Community of Inquiry Theoretical Framework. *International Journal of E-Learning & Distance Education* 34(1).

# COI meets Web 2.0

- How much does social presence increase in synchronous activities?
- Does adding voice (audioconferencing) graphics (web conferencing), pictures (video), virtual environment (immersion) significantly increase social presence?
- Are the resulting limitations on access worth social and pedagogical gains?
- When is too much social presence damaging?



Figure 3. Building blocks of the networked scholar<sup>5</sup>

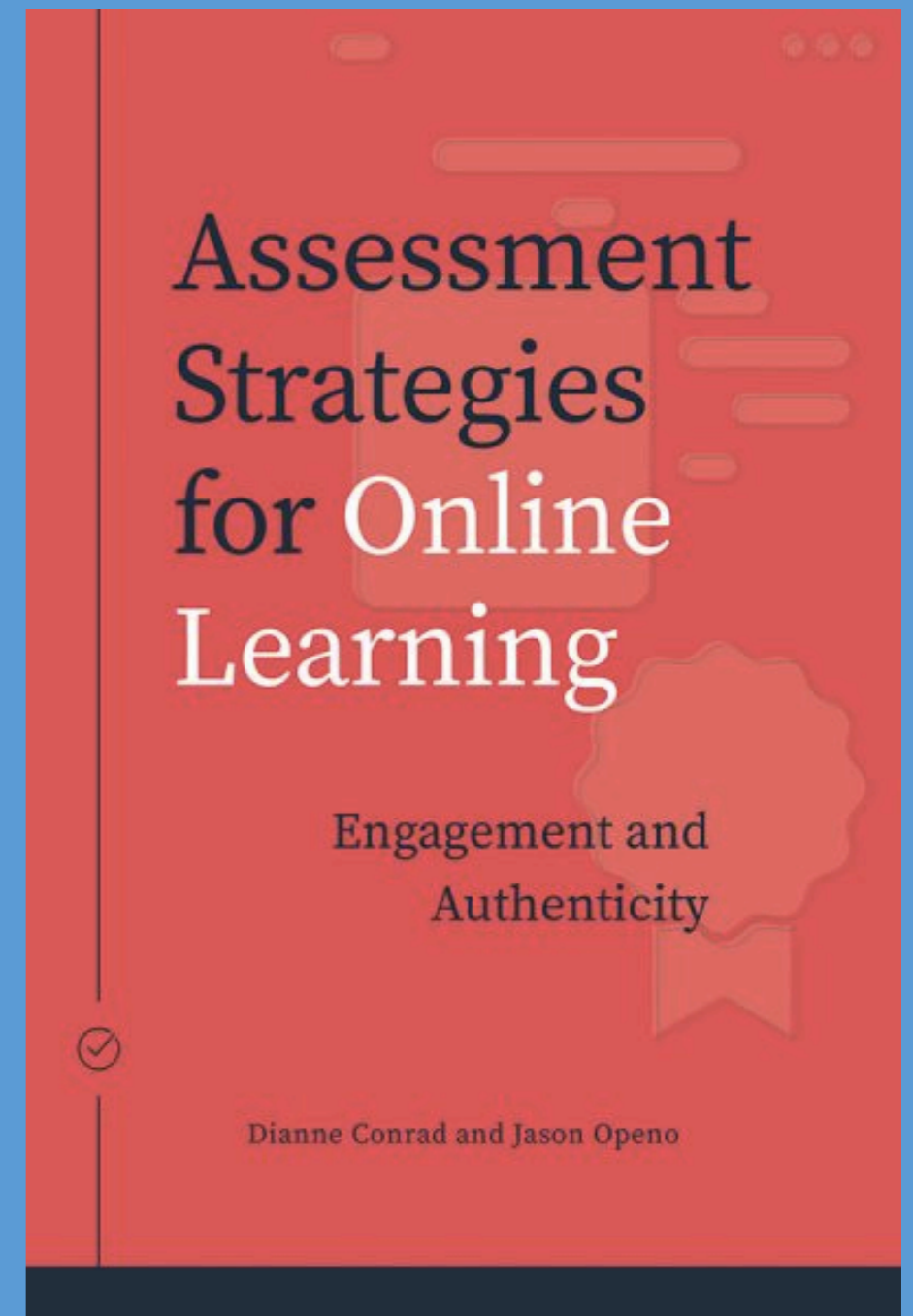
# Your Net Presence - an Essential Skill

Goodier, S., & Czerniewicz, L. (2013). Academics' online presence: A four-step guide to taking control of your visibility. *University of Capetown*.

<http://openuct.uct.ac.za/sites/default/files/Online%20Visibility%20Guidelines.pdf>.

# Assessment in Online Learning

- From information to application
- Contextualizing problems to inhibit answer sharing
- Collaborative Exams (student submit first by themselves, then with 2-3 peers).
- Remote invigilation



<https://www.aupress.ca/books/120279-assessment-strategies-for-online-learning/>

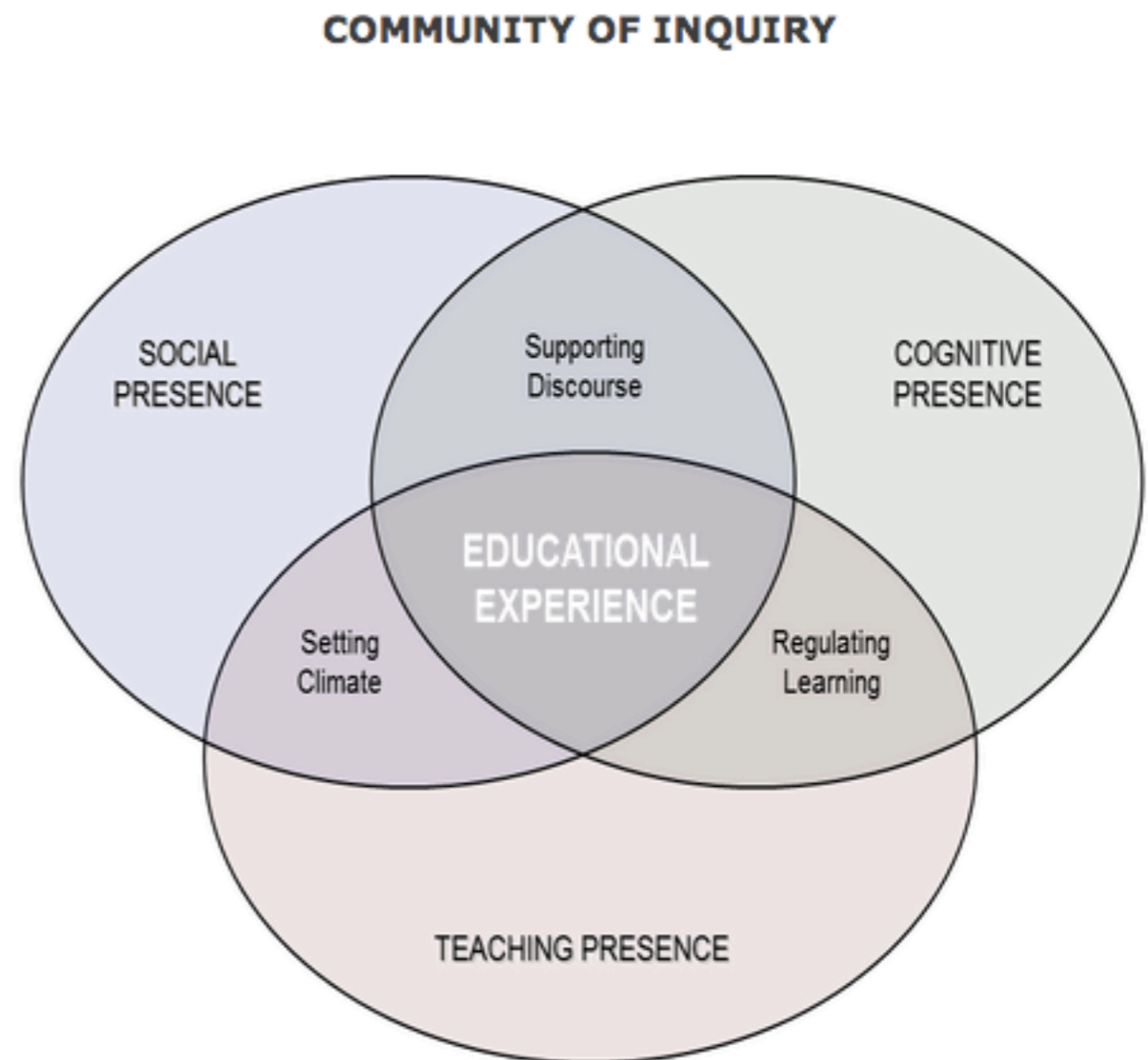




## □□□ Welcome

This site documents the work completed during a Canadian Social Sciences and Humanities research funded project entitled "A Study of the Characteristics and Qualities of Text-Based Computer Conferencing for Educational Purposes". This project ran from 1997 to 2001. The theory, methodology and instruments developed during this project are described in the papers published in peer reviewed journals and copied at this site.

The work of this project has resulted in a variety of researchers replicating and further developing the tools and techniques that we developed. We invite anyone who uses this content to contribute their own papers, references, and links in the related sections. As well, feel free to share experiences, concerns or questions in the weblog. The purpose of this project is to support a personally meaningful and educationally worthwhile learning experience. Central to the study introduced here is the model of a community of inquiry that constitutes three elements essential to an educational experience: Cognitive Presence, Social Presence and





# Conclusions

- COI most widely quoted heuristic and research theory in online learning
- Simple model capable of guiding, but not restraining teaching and curriculum development
- Developed for an online context
- Does it speak to learning in your course contexts?
- Is it a useful tool for education development and research?

Terry Anderson [terrya@athabascau.ca](mailto:terrya@athabascau.ca)

Blog: [virtualcanuck.ca](http://virtualcanuck.ca)

- Education must be conceived as a continuing reconstruction of experience; that the process and the goal of education are one and the same thing. John Dewey