Community of Inquiry Framework:
Innovations that Work In Online Education

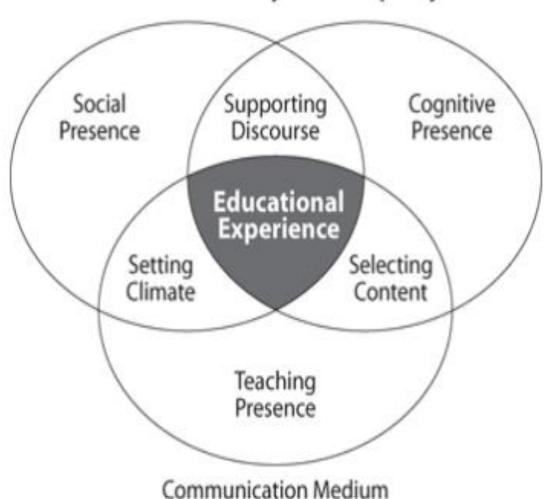
JILL CUMMINGS, PH.D. & PAUL J. GRAHAM, MLIS
YORKVILLE UNIVERSITY



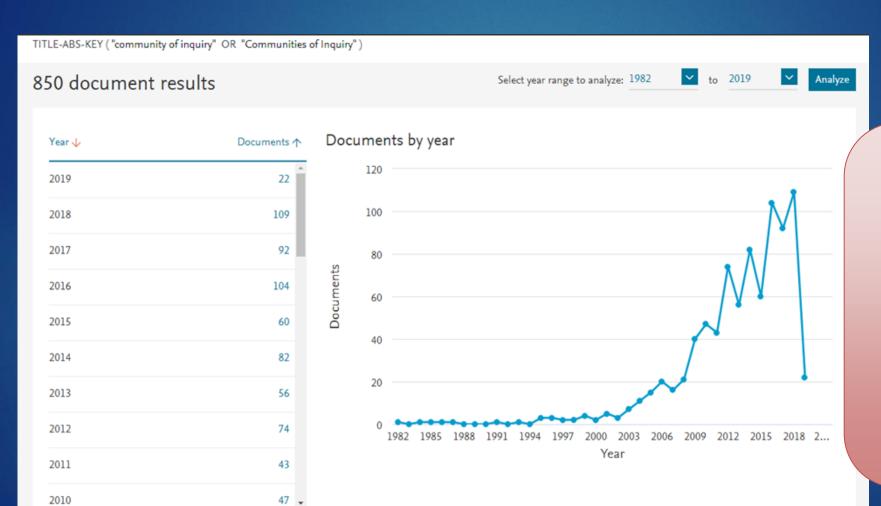
What is the Community of Inquiry Framework?

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

Community of Inquiry



Relevance



Data collected from Scopus Index February 2019 without search filters.

Data Collection Methods

- Search from February to June 2019
- Terminology related to Online Education, Instructional Design and Technology.
- Filters included
 - ▶ Peer Review
 - 2010 to Present
 - ▶ Post Secondary context
- Results
 - ▶ 1057 Results were Saved to Zotero Bibliographic software
 - 99 Articles were reviewed & coded for this presentation
 - ▶ Potentially 285 left for analysis/inclusion.

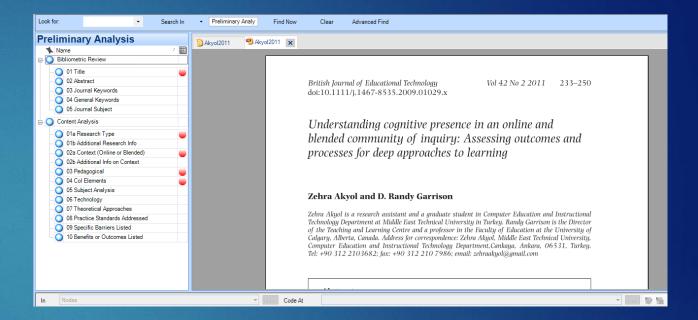


Zotero is a freely available bibliographic software program that allows for online collaboration.



Data <u>Analysis</u> Methods

- Articles analyzed in Nvivo
- Basic bibliographic data
- Content Coded:
 - Empirical or Conceptual Paper
 - ► Learning Online, Blended, or Both
 - ► Teaching/Learning or Design/Curriculum
 - Social, Teaching, or Cognitive Presence
 - Technology
 - ▶ Theories
 - Practice Standards
 - Barriers & Benefits



Nvivo is a qualitative software package that also provides many interesting ways to conduct literature reviews and content analysis.



Findings, Year of Publication

Year of Publication	Number of Publications
2019	1
2018	7
2017	13
2016	12
2015	11
2014	14
2013	7
2012	12
2011	13
2010	9

This table displays the year of publication for the 99 articles reviewed so far that meet our search parameters, analyzed in Nvivo.

Top Journals

Journal Title	Number o	of Articles
E-Learning and Digital Media	13	
Journal of Asynchronous Learning Networks	6	These are the top
Internet and Higher Education	4	journals that
Online Learning	4	contain the most
Journal of Educational Computing Research	4	publications, then
International Review of Research in Open & Distance Learning	3	the remaining articles are
SAGE Open	3	spread out across
Journal of Dental Education	2	many journals.
Educational Media International	2	
Journal of Developmental Education	2	

Research Type, Content, & Pedagogy

Data Category	Values	Results
Research Type	Empirical Conceptual	69 30
Context	Online Blended Both	73 12 14
Pedagogical	Teaching/Learning Design/Curriculum Both	3 nil 96

So far, most articles are original empirical research, addressing primarily the purely online environment, encompassing both Teaching and Design elements.

Primary Data

Data Category	Values	Results
COI	Cognitive Presence Social Presence Teaching Presence All Three Addressed	5 6 5 87

These are instances where a specific focus can be identified with some overlap and so equals to greater than 99 articles.

Innovations that Work

► Audio

Strategies for Critical Thinking



Audio

Word Cloud based on Key Words of selected articles addressing 'audio'

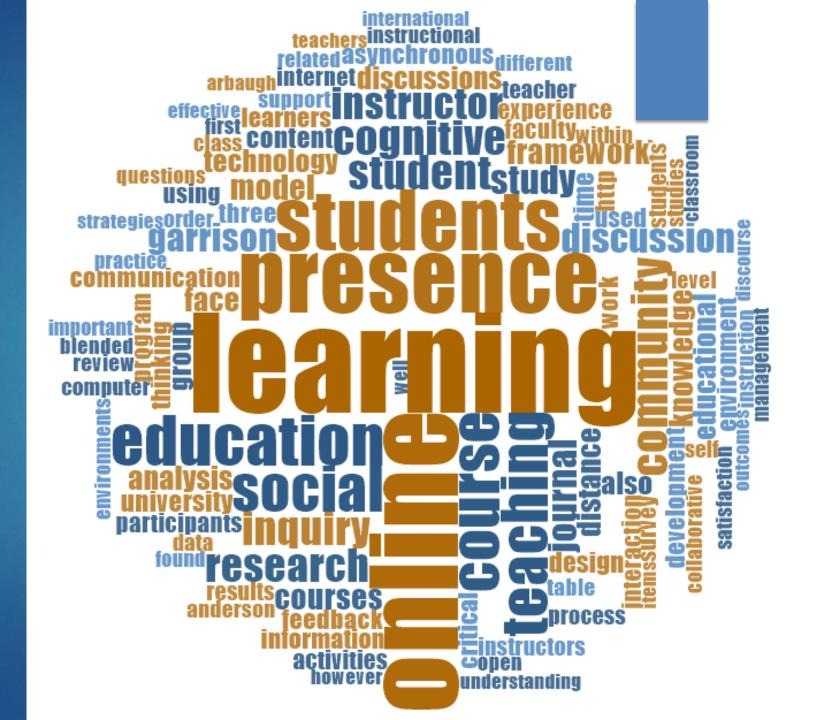


Selected Articles for Consideration

Publication	Subject & Questions	Findings
deNoyelles et al (2014)	Review article: Use of audio feedback in Discussions	Audio Feedback enhanced TP, SP, CP and student satisfaction
Ice, Swan et al (2010)	Academic Writing	-Students preferred combination of audio and written feedbackParticularly written for spelling, grammar, and referencingAudio feedback enhanced TP.
Lindorff & McKeown (2013)	Blended Learning – Management Studies (1st year)	71 % of students wanted audio or video lectures included in online learning/teaching
Olesova et al (2011)	ESL/EFL	Audio feedback improved student engagement and satisfaction; TP and SP. Most students asked for both audio and written feedback.

Strategies for Critical Thinking

Word Cloud based on 71 of 99 articles referring to "Critical Thinking"



Selected Articles for Consideration

Publication	Subject & Question	Findings
Lin (2016)	Master's – Management Courses	Instant messaging (IM) between adviser and student enhanced TP and student motivation leading to improved critical thinking.
Pecka et al (2014)	Nursing – Anesthesia Courses – How to improve use of critical thinking	Model for combining COI framework with Bloom's taxonomy of thinking for online
Rix (2011)	Blended – Undergraduate courses	Online discussions improved critical thinking
Taft et al (2011)	Review article to evaluate class size in online learning	Class size of 20 or fewer improves critical thinking and discussion

Selected References and Resources

Community of Inquiry: Innovations that Work J. Cummings & P. Graham

October 24, 2019
jcummings@yorkvilleu.ca
pjgraham@yorkvilleu.ca

- ▶ Befus, M. (2016). Conducting a multivocal thematic synthesis on an extensive body of literature. Canadian Journal of Learning and Technology, 42(2), 1–17. Retrieved from ERIC. (1826526542; EJ1100655)
- Cleveland, S., Jackson, B. C., & Dawson, M. (2016). Microblogging in higher education: Digital Natives, knowledge creation, social engineering, and intelligence analysis of educational tweets. E-Learning and Digital Media, 13(1–2), 62–80. https://doi.org/10.1177/2042753016672130
- deNoyelles, A., Mannheimer Zydney, J., & Baiyun Chen. (2014). Strategies for creating a community of inquiry through online asynchronous discussions. Journal of Online Learning & Teaching, 10(1), 153–165.

- ▶ Garrison, D. R. (2012). Article Review—Social presence within the community of inquiry framework. International Review of Research in Open & Distance Learning, 13(1), 250–253.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. The Internet and Higher Education, 2(2-3), 87-105.
- ▶ Holbeck, R., & Hartman, J. (2018). Efficient Strategies for maximizing online student satisfaction: Applying technologies to increase cognitive presence, social presence, and teaching presence. Journal of Educators Online, 15(3), 91–95.
- ▶ Hosler, KimA., & Arend, BridgetD. (2012). The importance of course design, feedback, and facilitation: Student perceptions of the relationship between teaching presence and cognitive presence. Educational Media International, 49(3), 217–229.
- ▶ Ice, P., Swan, K., Diaz, S., Kupczynski, L., & Swan-Dagen, A. (2010). An analysis of students' perceptions of the value and efficacy of instructors' auditory and text-based feedback modalities across multiple conceptual levels. Journal of Educational Computing Research, 43(1), 113–134. https://doi.org/10.2190/EC.43.1.g

- ► Kovanović, V., Gašević, D., Joksimović, S., Hatala, M., & Adesope, O. (2015). Analytics of communities of inquiry: Effects of learning technology use on cognitive presence in asynchronous online discussions. Internet & Higher Education, 27, 74–89.
- ► Lee, R., & Faulkner, M. (2011). The roles of extrinsic factors in a community of inquiry model of E-learning. E-Learning and Digital Media, 8(1), 58–67. https://doi.org/10.2304/elea.2011.8.1.58
- ► Lin, S. (2016). Social contingency and advising accountability: Exploring contextual practice of instant messaging. SAGE Open, 6(1), 2158244016635717. https://doi.org/10.1177/2158244016635717
- ► Lindorff, M., & McKeown, T. (2013). An aid to transition? The perceived utility of online resources for on-campus first year management students. Education & Training, 55(4/5), 414–428. https://doi.org/10.1108/00400911311326045
- ▶ Olesova, L. A., Richardson, J. C., Weasenforth, D., & Meloni, C. (2011). Using asynchronous instructional audio feedback in online environments: A mixed methods study. MERLOT Journal of Online Learning and Teaching, 7(1).

- ▶ Orcutt, J. M., & Dringus, L. P. (2017). Beyond being there: Practices that establish presence, engage students and influence intellectual curiosity in a structured online learning environment. Online Learning, 21(3), 15–35. Retrieved from ERIC. (1969017075; EJ1154155)
- Pecka, S. L., CRNA, PhD, Kotcherlakota, S., PhD, & Berger, A. M., PhD, APRN-CNS, AOCNS, FAAN. (2014). Community of inquiry model: Advancing distance learning in nurse anesthesia education. AANA Journal, 82(3), 212–218. Retrieved from ProQuest Central. (1552483867; 25109159)
- ▶ Redmond, P. (2014). Reflection as an indicator of cognitive presence. E-Learning and Digital Media, 11(1), 46–58. https://doi.org/10.2304/elea.2014.11.1.46
- ▶ Rix, R. W. (2011). Blended Learning: Perspectives on mixing online and offline communities of inquiry. E-Learning and Digital Media, 8(4), 423–433. https://doi.org/10.2304/elea.2011.8.4.423
- ▶ Stenbom, S. (2018). A systematic review of the community of inquiry survey. Internet and Higher Education, 39, 22-32.

- ► Taft, S. H., Perkowski, T., & Martin, L. S. (2011). A framework for evaluating class size in education. Quarterly Review of Distance Education, 12(3), 181-197,222. Retrieved from ProQuest Central. (920291721)
- Taylor, F. A., Nelson, E., Delfino, K., & Han, H. (2015). A blended approach to learning in an obstetrics and gynecology residency program: Proof of Concept. Journal of Medical Education and Curricular Development, 2, JMECD.S32063. https://doi.org/10.4137/JMECD.S32063
- ➤ Xin, C. (2012). A Critique of the community of inquiry framework. Journal of Distance Education, 26(1). Retrieved from https://search.proquest.com/docview/1140141559?accountid=142373

- Websites and Videos re. Community of Inquiry Framework
- ▶ Community of Inquiry Framework. https://coi.athabascau.ca/coi-model/
- ► https://www.youtube.com/watch?v=273WuFa6Z04
- https://www.youtube.com/watch?v=YsNeJPBiDeA

Questions

Dr. Jill Cummings <u>jcummings@yorkvilleu.ca</u>
Associate Dean Faculty Development
Yorkville University

Paul J. Graham <u>pgraham@yorkvilleu.ca</u> University Librarian Yorkville University

