Interaction Summit

November 9, 2010

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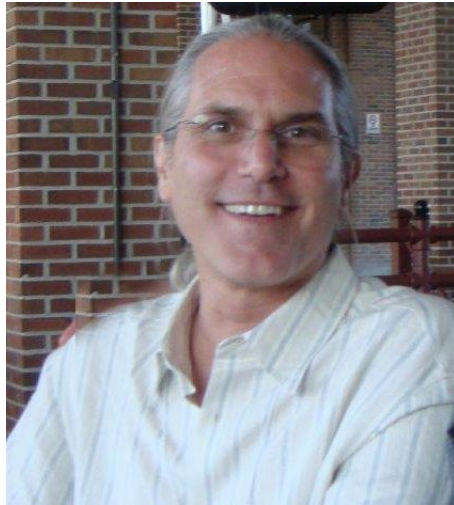Holds an endowed chair for research on educational technology.

Deb Adair

Director, The Quality Matters Program

Kay Shattuck

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Executive Director –
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Expected Outcomes of Part 1

1. At least two points noted on the value of interaction in online learning in higher education and self-paced professional training.

2. At least two points noted on the value of learner-learner interaction in online learning, including relevant issues that influence the value of learner-learner interactions within identified learning environments and conditions.

Expected Outcomes of Part 2

1. At least one recommendation on modification (if any) to existing QM standard 5.2: *Learning activities foster instructor-student, content-student, and if appropriate to the course, student-student interaction.*

2. At least one recommendation on modifying and/or expanding annotations for any of the other 39 existing QM standards.

Some Parameters for Discussion

- Definition
  - ✓ Wagner (1994) "reciprocal events… mutually influence each other"
  - ✓ Interpersonal (synchronous and asynchronous) and with content
  - ✓ Interaction = people's behaviors, interactivity = aspect of technology

- Types suggested in the lit
  - ✓ **Learner-content, Learner-instructor, Learner-learner**
  - ✓ Learner-interface, Learner-the virtual, Teacher-content, Teacher-teacher, Content-content

- Theoretical framework: When appropriate, please identify

- Phone bridge:
  - ✓ Be constantly aware and respectful (all comments will be heard by everyone)
  - ✓ Requesting guests to put phones on mute

Turn-taking and other dynamics

- Panelist will respond in alphabetical order to first two questions.
    - ✓ Panelists encouraged to use ElluminateLive chat during colleagues' presentations.
    - ✓ Use "raised hand" icon and wait to be recognized by the moderator during the follow-up discussion.

- Guests are observers only during Part 1.
    - ✓ Please set phones on mute.
    - ✓ Please do not use the Elluminate chat during Part 1. The area will be saved for the panelists.
    - ✓ Make notes and send questions during Part 1 *via provided email (Julie Shattuck/Kay Shattuck).*
    - ✓ Questions to be submitted to panelist in part 2 might include design and alignment issues, blended learning, self-paced.
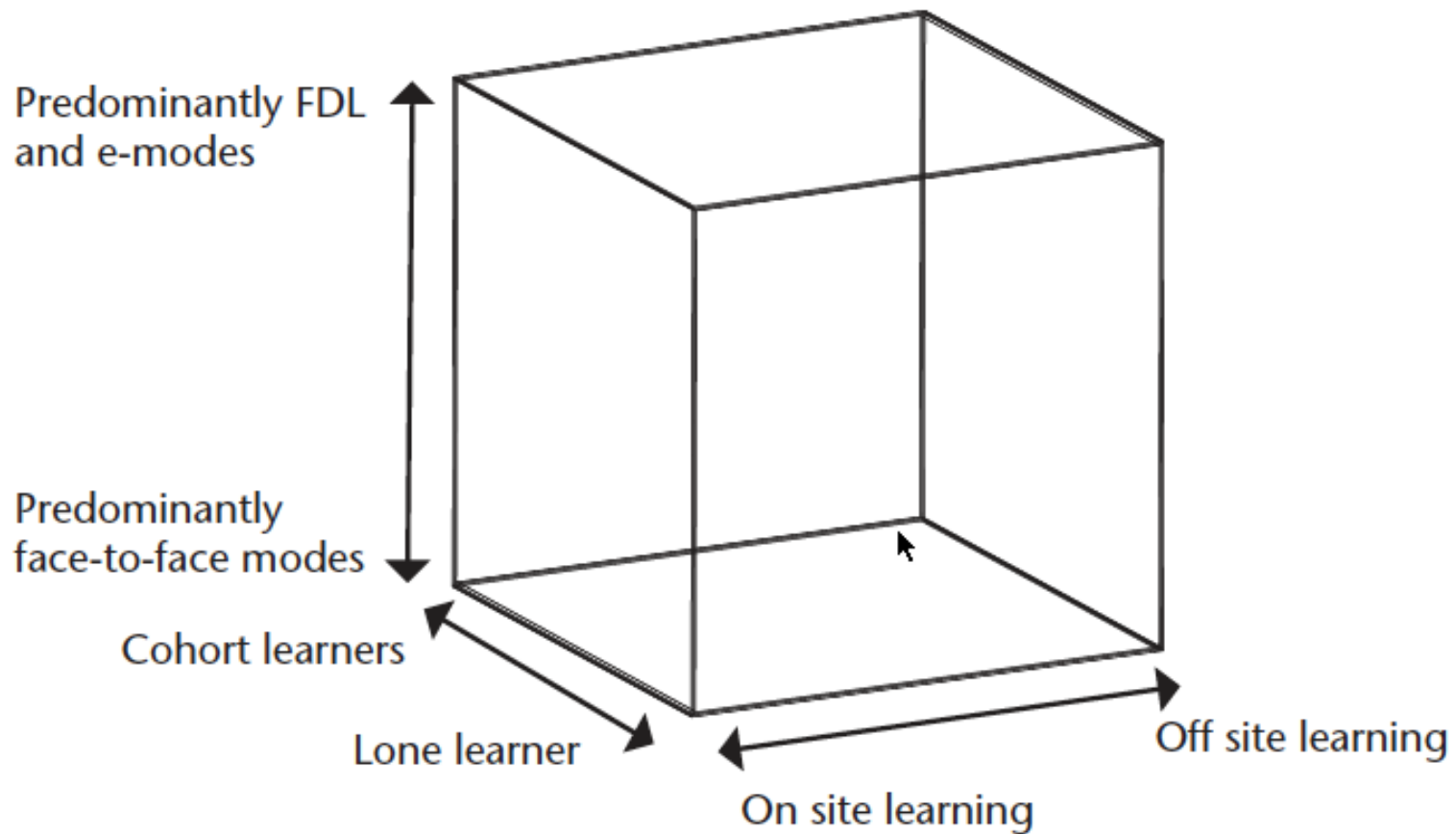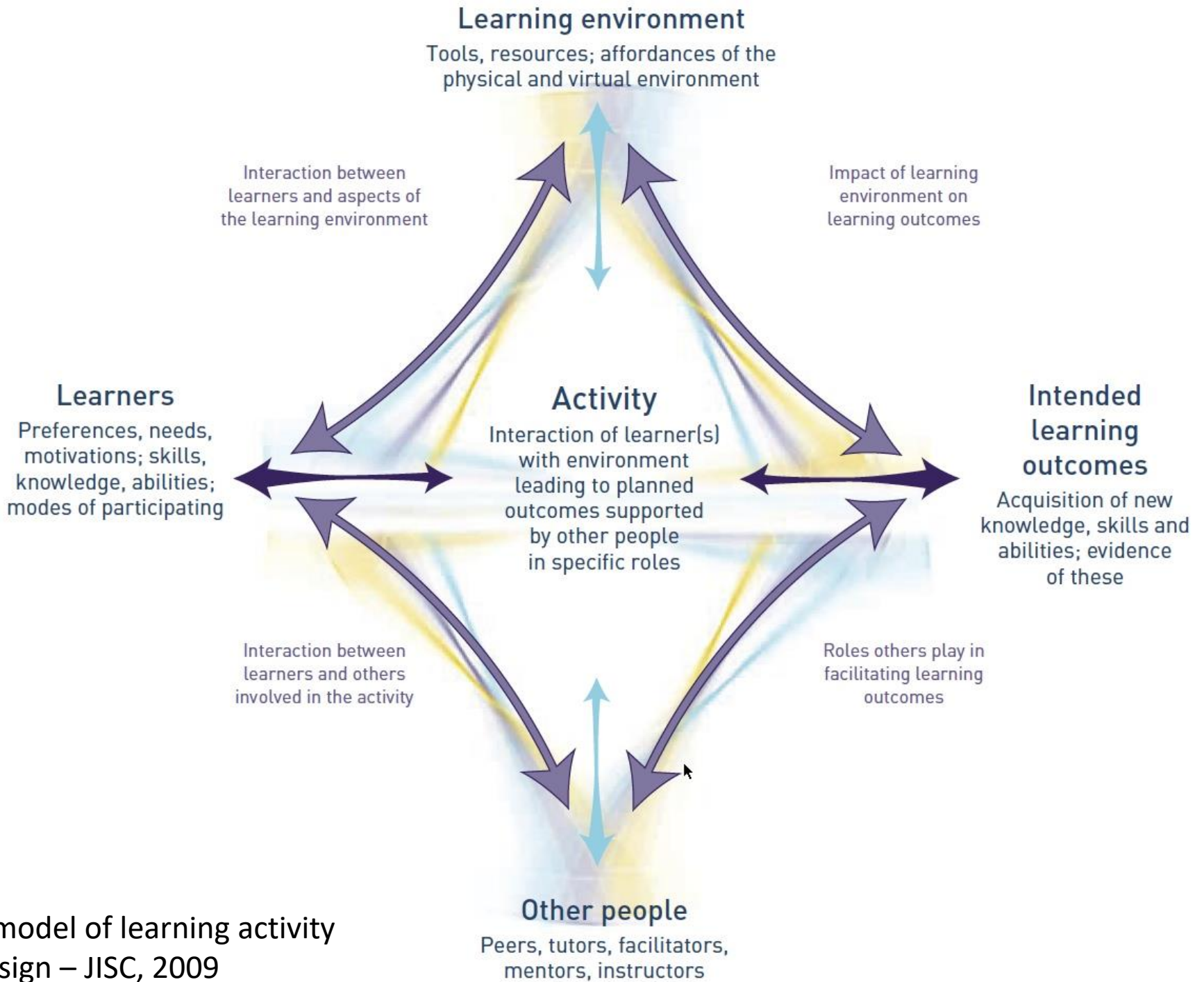
Terry Anderson

Professor at Athabasca University

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"we argue that our interconnection is not only a natural and necessary part of our lives, but also a force for good. Just as brains can do things that no single neuron can do, so can social networks do things that no single person can do" Connected: The Surprising Power of Our Social Networks Christakis and Fowler, 2009 (p. xii)
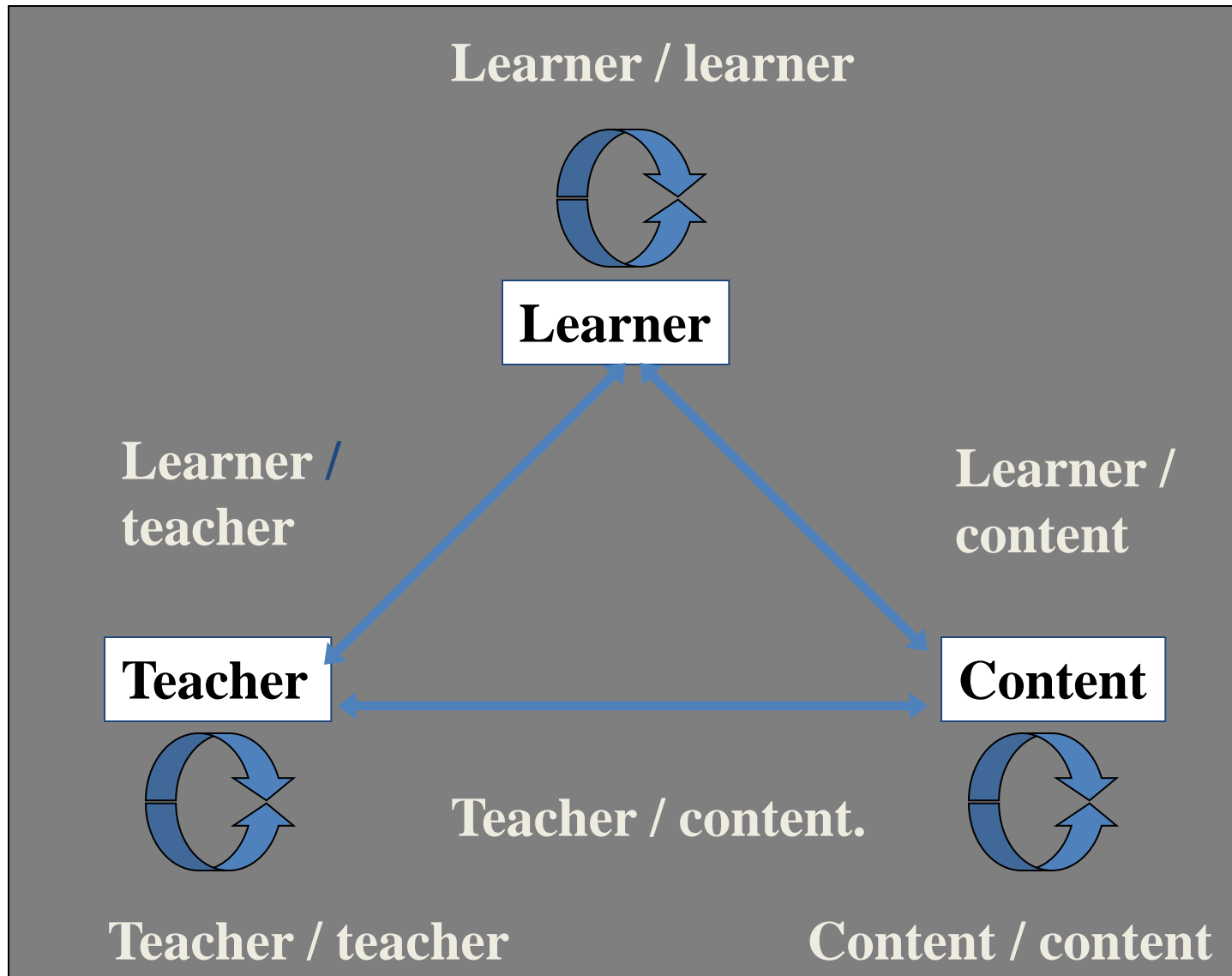
Predominantly FDL and e-modes

Predominantly face-to-face modes

Cohort learners

Lone learner

On site learning

Off site learning

The Quality Assurance Agency for Higher Education

Learning environment
Tools, resources; affordances of the physical and virtual environment

Interaction between learners and aspects of the learning environment

Impact of learning environment on learning outcomes

Learners
Preferences, needs, motivations; skills, knowledge, abilities; modes of participating

Activity
Interaction of learner(s) with environment leading to planned outcomes supported by other people in specific roles

Intended learning outcomes
Acquisition of new knowledge, skills and abilities; evidence of these

Interaction between learners and others involved in the activity

Roles others play in facilitating learning outcomes

Other people
Peers, tutors, facilitators, mentors, instructors

A model of learning activity design – JISC, 2009

Educational Interactions

Learner / learner

Learner

Learner / teacher

Learner / content

Teacher

Content

Teacher / content.

Teacher / teacher

Content / content

• Anderson (2002) Equivalency Theorem

Taxonomy of the Many

Groups

Networks

Collectives
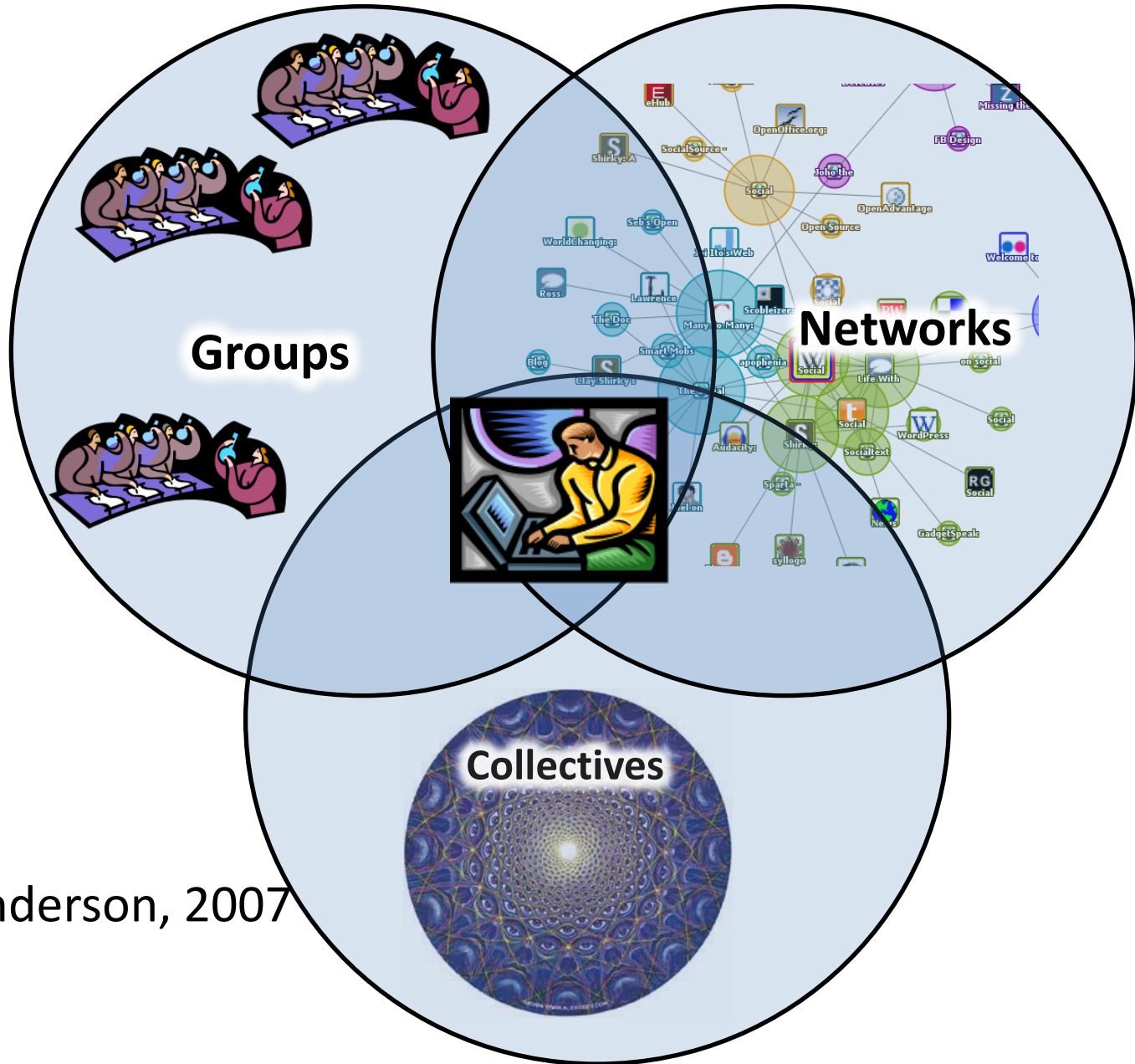
Dron and Anderson, 2007

Zane Berge

Professor of Education/Training and Development

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One of the main challenges to research involving interaction in the online classroom is to move beyond students' and teachers' perceptions and satisfaction.

Does more interaction equate to increased effectiveness, better grades, and improved students' performance?

A relationship may exist between student performance as defined by grades, and activity in the campus's online course management system (CMS).

Reports show students earning a D or F in courses used the CMS 39% less than students earning a grade of C or higher.

Expand academic analytics to include looking for the types of interaction that successful students engage in, but unsuccessful do not, that may *cause* increased learning effectiveness and higher student performance.

Charlotte (Lani) Gunawardena

Professor of Organizational Learning and Instructional Technology

University of New Mexico

Q1:Value of Learner-Learner (L-L) Interaction

- "…quality of a learning process is not something that is delivered to a learner by an e-learning provider but rather constitutes a process of co-production between the learner and the learning-environment" (Ehlers, 2004)
- Interaction was an important dimension in Korean students' evaluation of quality in e-Learning. (Jung 2010)
- L-L interaction online was a very high predictor of learner satisfaction in a faculty development program in Sri Lanka (Gunawardena, et al. 2007)

1. Depending on the course and sociocultural context, L-L interaction can reduce the loneliness of the long distance learner. Two factors that impact -social presence and interaction:

    – Social presence is the subjective measure of the presence of others, and interactivity is the quality of a communication sequence. When there is quality interaction, social presence can be enhanced. Social presence has been shown to be a predictor of learner satisfaction (Gunawardena & Zittle 1997, Richardson, & Swan, 2003).

    – Amount of social presence needed in a learning environment will depend on learners and the sociocultural context. (Gunawardena et al. 2001)

Q1 (Continued)

2. Across five disciplines (engineering, law, nursing, education, & business) and across three higher education institutions in three countries (U.S., Spain, & Venezuela), faculty are defining online interaction from a group learning perspective, visioning a community of learners online, rather than from an individual learner's perspective. Additionally, the concept of learner-community interaction emerged as an important type of interaction in the education discipline. Also, faculty conceptualized media as a transactional method for promoting interaction (Gunawardena, et al. 2009)

3. L-L interaction is key to building an online wisdom community (Gunawardena et al. 2006, La Pointe & Gunawardena, 2004)

4. Rethink the role and purpose of L-L interaction_ as building a *communal learning resource (Van Aalst, 2006)*

Q2: Influences on Value of L-L Interaction – Knowledge Building

- Problems with quality and quantity of online interactions that challenge online inquiry. Knowledge Building requires improvement of ideas and building on each other's knowledge. Knowledge building, therefore, depends on higher levels of collaboration and learning how to learn (Van Aalst, 2006). "A rule of thumb for creating a knowledge-building community may be to *aim for deeper levels of collaboration and learning how to learn and introduce the epistemological notion of idea improvement*" (van Aalst, p. 286).

- Understanding and evaluating group processes in knowledge Building (Scardamalia & Bereiter, 2003), and Knowledge construction (Gunawardena, Lowe, & Anderson 1997)

Q2: Influences on Value of L-L Interaction – Sociocultural Factors

- Socio-cultural environment and context
- Diverse educational expectations
- Learning styles and preferences
- Communication Styles (eg: high and low context, gender differences)
- Power distance
- Language Issues (ESL)
- Interpretation of design elements
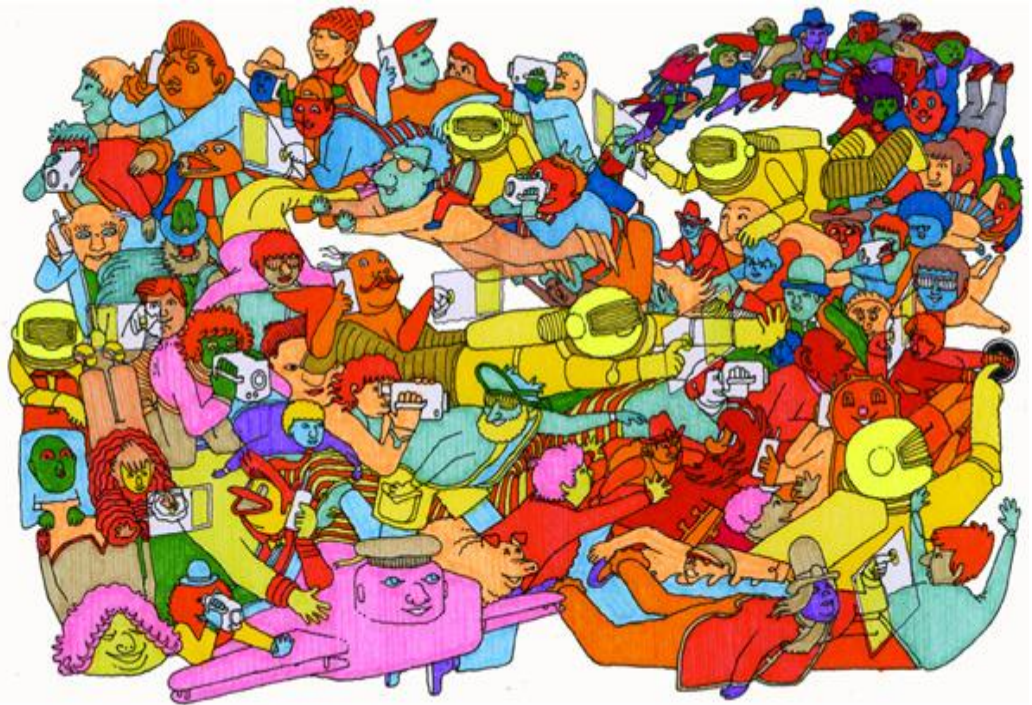- Silence

(Gunawardena & LaPointe, 2008)

M.D. Roblyer

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Nova Southeastern University

Quality Matters Interaction Summit

Contributions by
M. D. Roblyer

November 9, 2010

From: http://www.jimtheillustrator.co.uk/editorial.php

The Value of Interaction in Online Learning:

Challenging Issues from Research and Practice

For research on interaction: Too few studies with similar focus, measures

❑ So many variables can influence outcomes

❑ Results too limited to draw cross-study conclusions

The Value of Interaction in Online Learning: Challenging Issues from Research and Practice

BANG HEAD HERE

For research on interaction: Lack of standard, validated measures. Needed:

❑ Measures of online interaction

❑ Measures of outcomes (e.g., engagement, satisfaction)

The Value of Interaction in Online Learning: Influences That Impact the Value of Interaction

Type of course and interaction activity:

❑Social or other engagement

❑Group problem solving

❑Group production

❑Discussion on concepts or issues

ONE FREE INTERACTION

THIS CARD MAY BE KEPT UNTIL NEEDED OR SOLD

The Value of Interaction in Online Learning: Influences That Impact the Value of Interaction
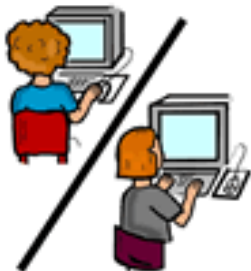
Student background variables:

- ❑ Online experience
- ❑ Experience with group work (online or otherwise)
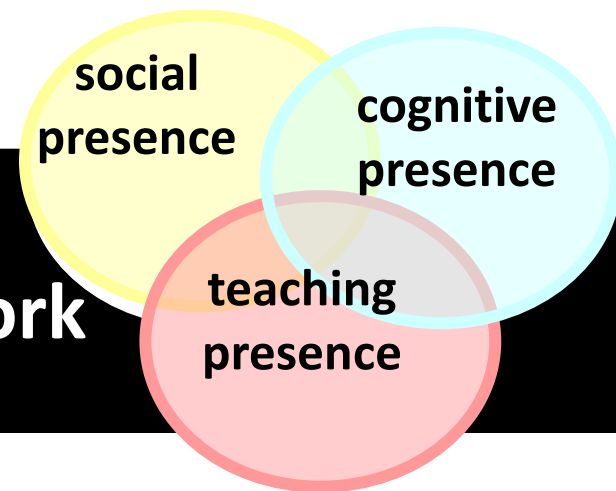- ❑ Age levels
- ❑ Socio-cultural preferences

Karen Swan

Professor in the Teacher Leadership program
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Holds an endowed chair for research on
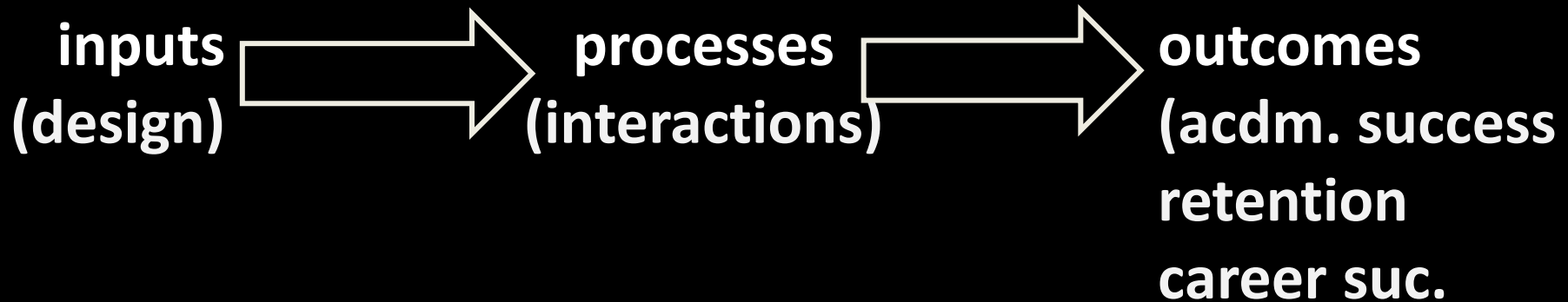educational technology.

Community of Inquiry (CoI) Framework

- **a process model of learning in online and blended educational environments**

- **grounded in a social-constructivist epistemology**

- **assumes effective learning in higher education requires the development of a community of learners that supports meaningful inquiry**

- **Views learning as occurring because of the interaction of social, cognitive and teaching presence**

relationship between inputs, processes & outcomes of the online learning experience

inputs (design) ⟶ processes (interactions) ⟶ outcomes (acdm. success retention career suc.

|	Ed. Comp.	Mass Com.
Inst. A		
Inst. B		

n=51/91

- relationship between social presence & course (design), p=.04;

  but no relationship between social presence & class or instructor; or between social presence & gender, online experience, or participation in course discussions

QM rubric and CoI survey measure different things
(Swan, Matthews, Welch & Bogle, 2010)

design

processes

outcomes
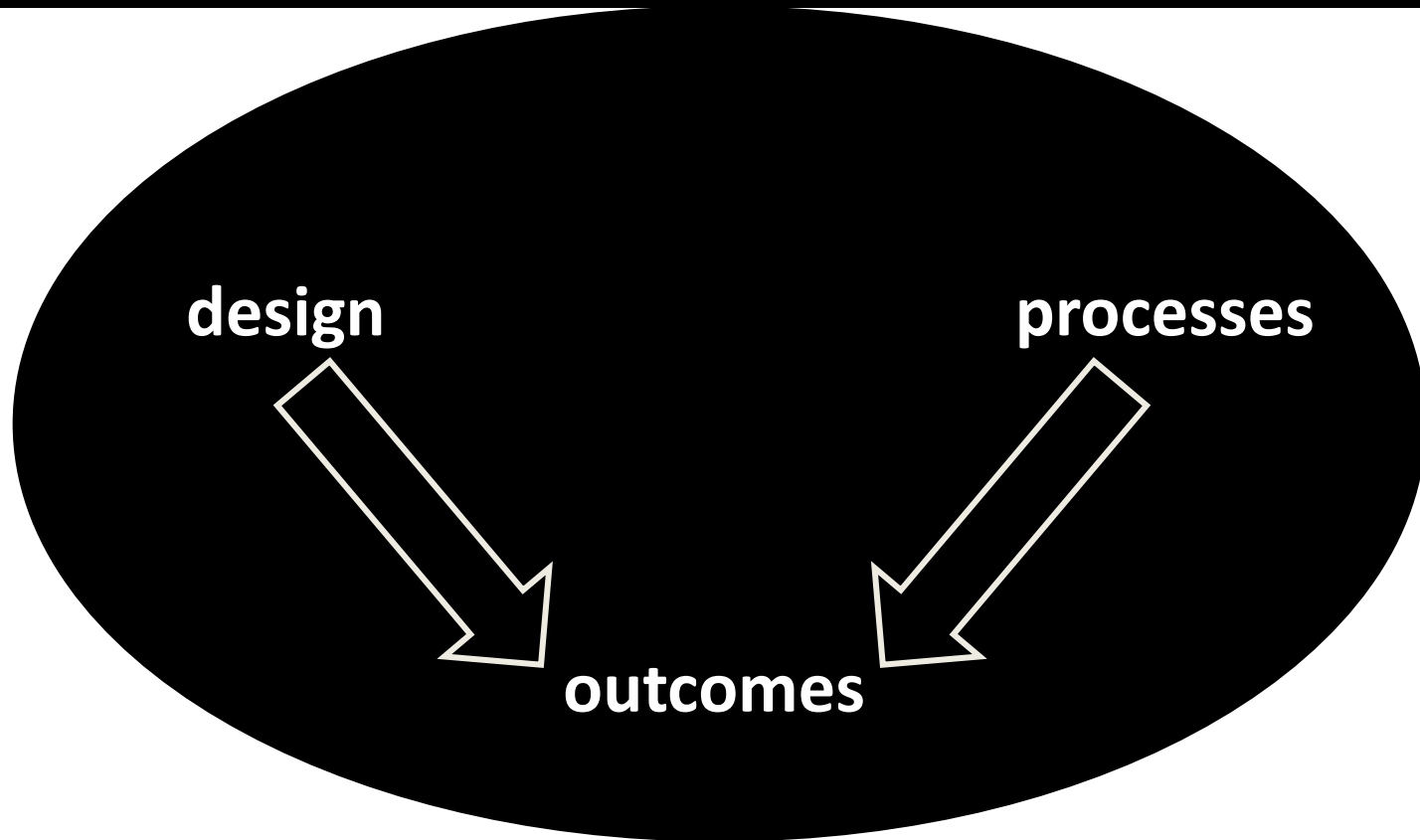
- differences in the effects of social presence of instructors and classmates

partial correlations between Social Presence variables and Perceived Learning, Perceived Interaction, and Instructor Satisfaction (n=51)

	perceived learning	perceived interaction	instructor satisfaction
perceived presence of peers	.36**	.44*	-.03
perceived presence of instructor	.49*	.10	.71*

*p<.005; **p<.05

- relationship between perceived & projected presence

social presence densities by group (n=10)				
	affective	**cohesive**	**interactive**	**overall**
high SP	17.5	6.7	4.4	28.6
low SP	26.3	10.0	6.6	47.3

- interesting differences in perceptions of online learning

mean perception ratings by group (n=10)				
	interaction	**SP of inst.**	**sat. w/ inst.**	**learning**
high SP	5.0	4.9	5.0	4.8
low SP	3.0	3.7	4.0	3.2

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