ICET: International Conference of Educational Technology
Rethinking Educational Technology in the Smart Learning Environment
April 18-21, 2016 Korea University Seoul, Korea

Critical Issues for Success in Open, Smart, and Social Learning Environments

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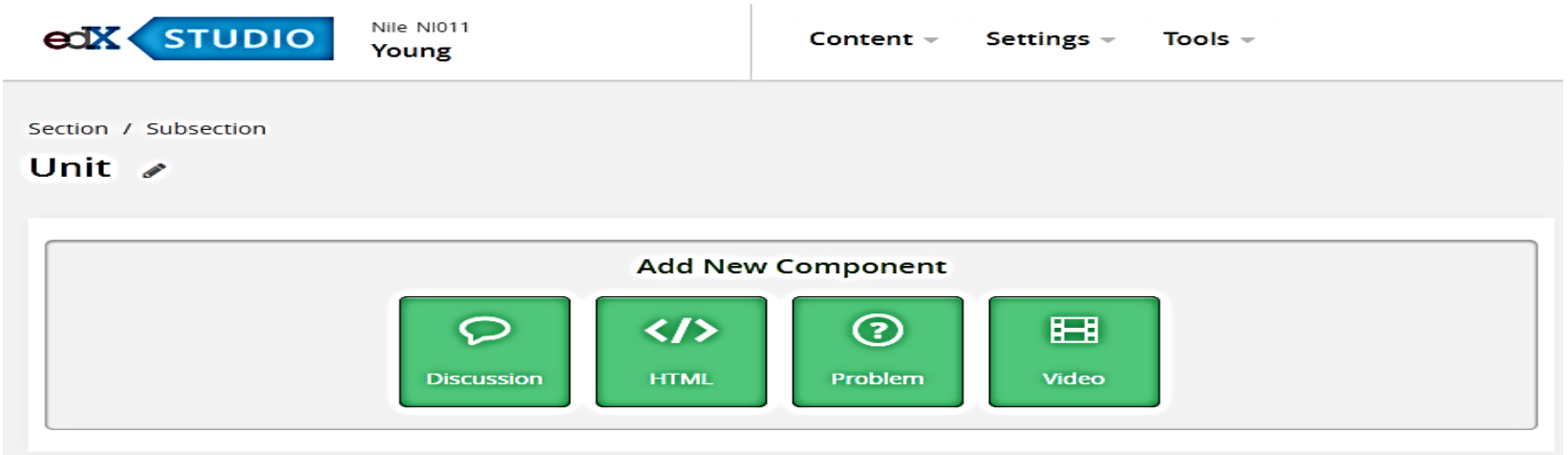
The Power of MOOCs : Platform to Learning Design

- **The Power of MOOCs: From contents to designing activities**

  ✓ Platform for Diverse and Effective Design for Learning activities



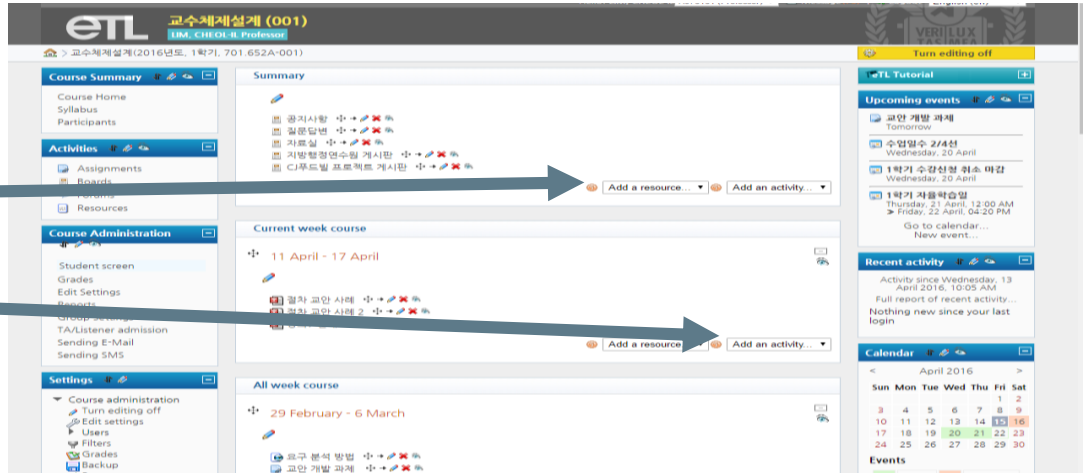
Smart Learning for HRD : Learning Design Systems

- **From e-learning to Smart Learning by instructional designer or curator**

  - ✓ Supporting Just-in-time needs of training and education
  - ✓ Learning Design Systems

- Content Selection System

- Activity Design System



Impact of open education to improve student outcomes around campus community

Using MOOCs on Campus

Introduction of MOOC as "digital textbooks"

- **Flipped classroom or blended learning**
- **Improvement of retention rate:** from 50% to 90%
- **SPOC (Small Private Online Courses):** Use MOOC privately inside campus

Online graduate school using MOOC

Georgia Tech Univ.

- **Master of computer science**

Collaborate with MOOC provider (Udacity)

- $7000 for master degree

Hokkaido University Center for Open Education

北海道大学 オープンエデュケーションセンター
CENTER FOR OPEN EDUCATION HOKKAIDO UNIVERSITY

University-wide organization

Supporting teaching and learning using OER

Use OER as MOOC
- Open MOOC with translation via edX.org

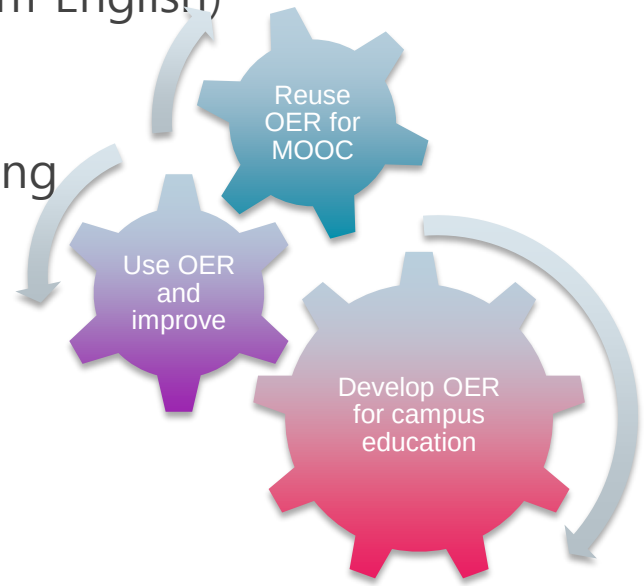
Introduce flipped classroom with distance learning (videoconferencing)
- Develop OER and platform (Open edX based)
- Apply CC-BY-NC license

OE Strategy at Hokkaido University (1)

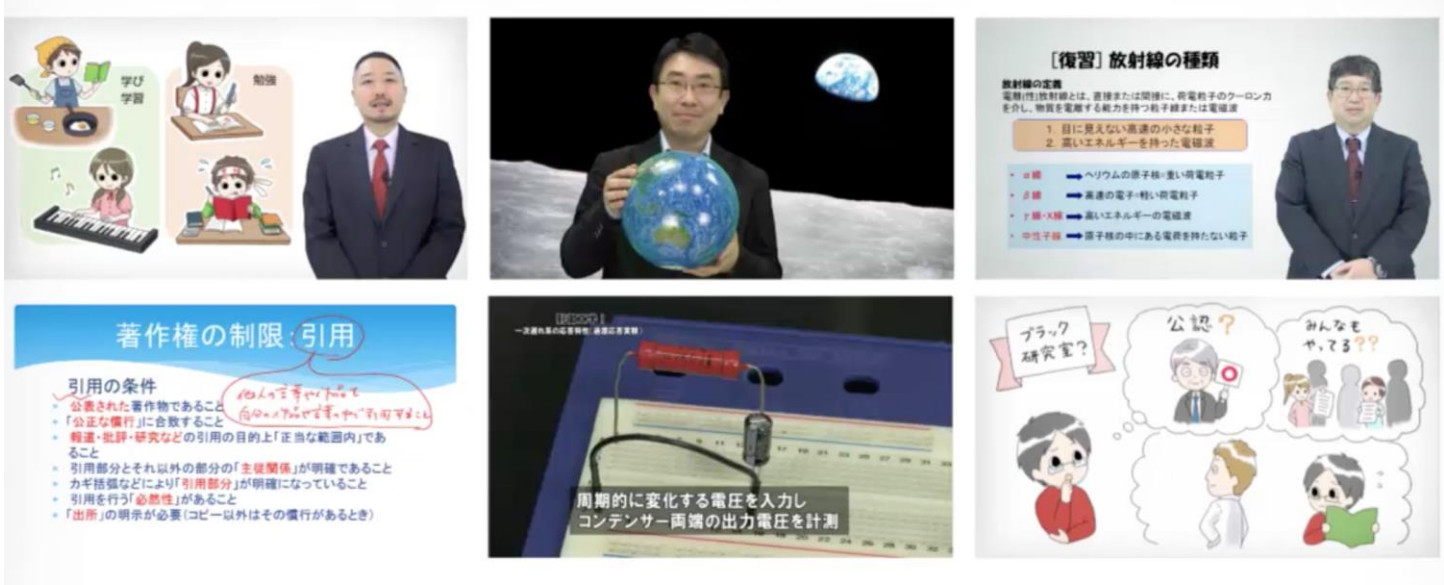
- Background in Japan
  Lack of non-English OER
  moderate textbook prices
- Background in Hokkaido
  Second largest island
  Least developed
- 7 public universities
  Hokkaido University and
  Specialized Colleges
- Potential to leverage online learning

OE Strategy at Hokkaido University (2)

- Step 1: Develop OER for our university
  With open license (CC-BY-NC)
  Reuse existing OER (translation from English)
- Step 2: Use OER and improve
  On campus by supplemental learning
  On university consortium with distance learning
- Step 3: Reuse for Open MOOC
  OECx course through edX.org
  Improve OER by learning data



Examples of OER

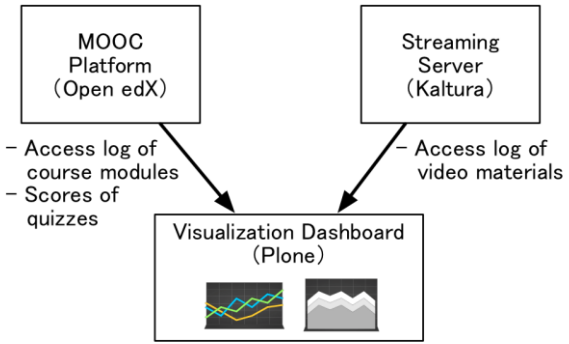


MOOC-type materials

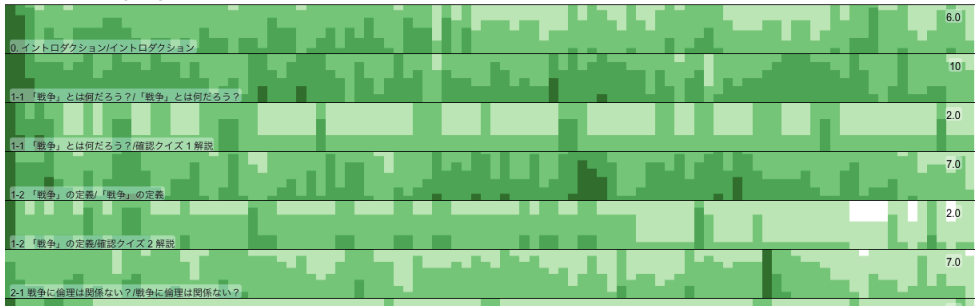
Committed to instructional design

Open license (CC-BY-NC)

Development of Learning Analytics Tool



Where in videos do students frequently access?



- Grasping how students study at home
  Overall trend and individual trend
  Show the frequency of access by shade of color

- Positive feedback from faculty
  Add supplemental lecture on flipped classroom

Learner's Self-Determination and Engagement

From the Self--Determination Theory Perspective

Learner's Motivation entering the course

(Harnett, St. George, & Drone, 2011; Ryan & Deci, 2000)

Controlled

Autonomous

Learner's Self-Determination and Engagement
From the Self--Determination Theory Perspective

Learners' psychological interaction with learning environments (content, instructor, peer) Deci & Ryan, 2000

Design Implications for Learning Environments
From the Self--Determination Theory Perspective

Akcaoglu & Lee, 2016; Jang, Reeve, & Deci, 2010; Lee, Patel, & Cozart, 2015; Sierens et al., 2009; Van Loon et al., 2012

Autonomy

Rationale
Choice
Personal goal setting
Big picture schedule
Individual approaches
Encouraging language

Relatedness

Voluntary, temporary leaders
Likeminded groups
Testimonials
Empathize
Extended social media

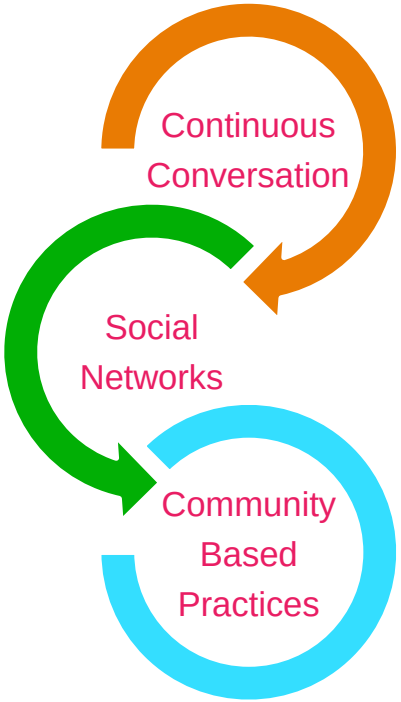
Competence

Orientation for technical operations (e.g., practice quiz)
Consistent modular design
Examples and why

The Importance of Community

Learning as a Social Endeavor:

- Typically turn to conversations and social networks for information and help (Calhoun & Green, 2015)
- Prefer to exchange information with most accessible over most qualified (Cadima, Ojeda, & Monguet, 2012)
- Trust building most distinct difference between social learning online and face-to-face



Communication & Trust Online

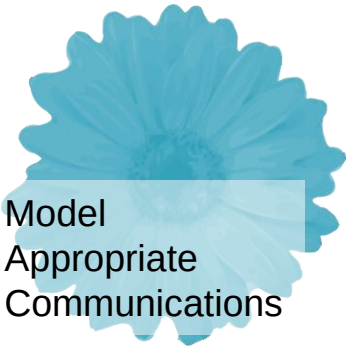
Learner Interaction
- Must be encouraged
- Must be high quality

Group Identity
- Learn about each other
- Share individual identities

Trust
- Key enabler of communication
- Absent of typical cues

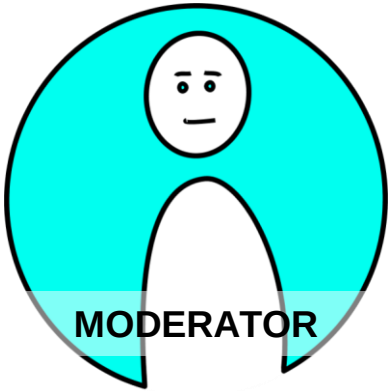
(Fang & Chiu, 2010; Postmes, Spears, Lee, & Novak, 2005)

Maintaining the Communication "Garden"



(Beach, 2012, p. 259)

Maintaining the Communication "Garden"



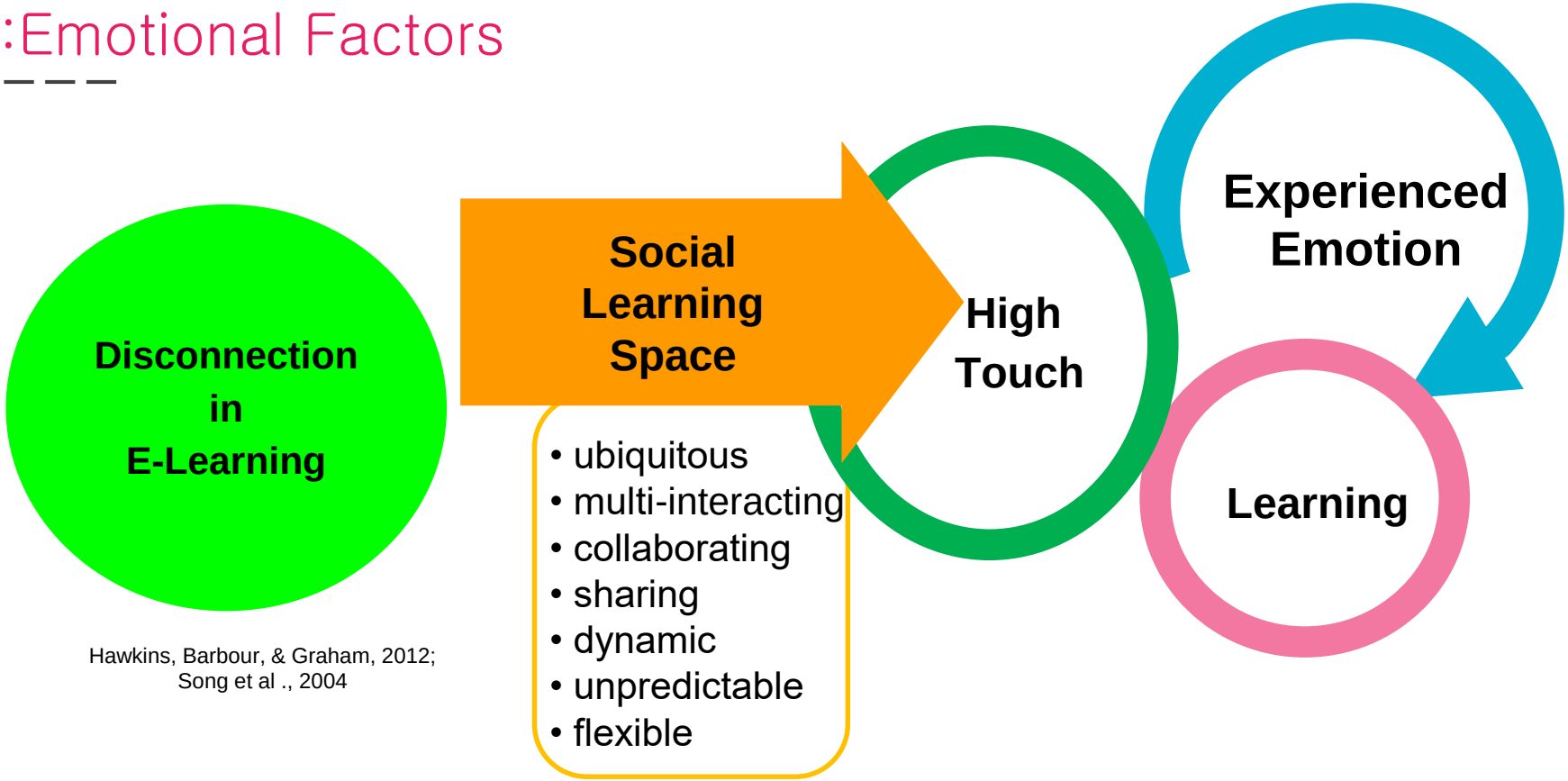
- Seeds discussion
- Scaffolds structured conversations
- Moves beyond surface
- Does not contribute original ideas
- Models leadership
- Pushes all learners to contribute

- Affirms and encourages
- Highlights value in learner contributions
- Inspires and guides learners to engage in dialogue
- Connect content and topic to member backgrounds
- Models critical online listening

- Helps members maintain appropriate and trustworthy online behavior
- Explains rules of online discourse
- Posts/ enforces netiquette policy
- Guides development of policy by members

(Booth, 2012; Bunt-Kokhuis & Sultan, 2012)

Design Implications for Social Learning
:Emotional Factors



Hawkins, Barbour, & Graham, 2012;
Song et al ., 2004

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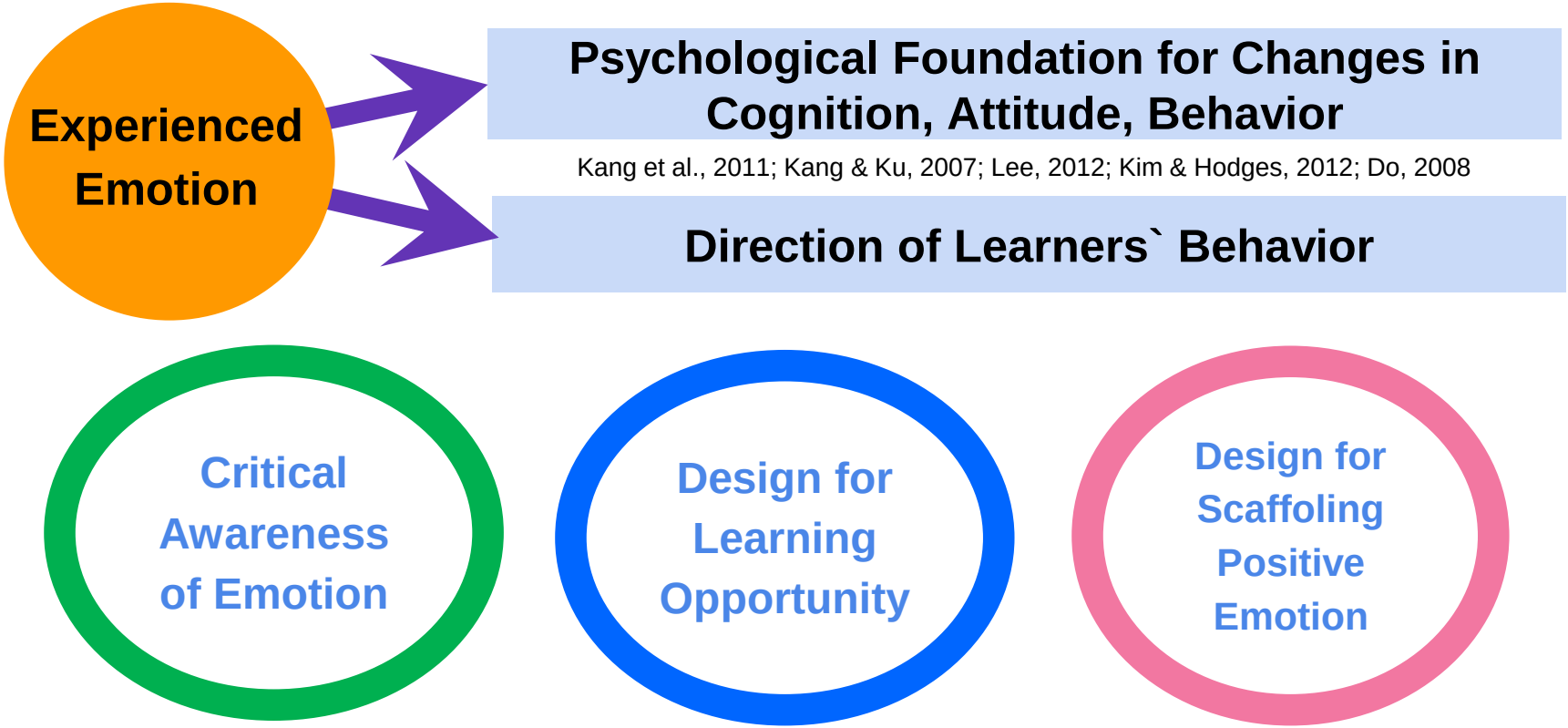


Critical Awareness of Emotion

Emotion

- Individual Experience
- Social & Cultural Experience
- Critical Role in Meaning Making & Knowledge Construction
- Facilitating Knowledge Sharing

(Delfino & Manca, 2007; Nummenmaa & Nummenmaa, 2008; Zembylas, 2008
(Dirkx, 2001; Shuck et al., 2007)
(Lee, 2014)

Learning & Meaning Making

- Social & Cultural practice

(Kress, 2011)

Social Networking Space

Vital role in Socializing & Sharing Knowledge

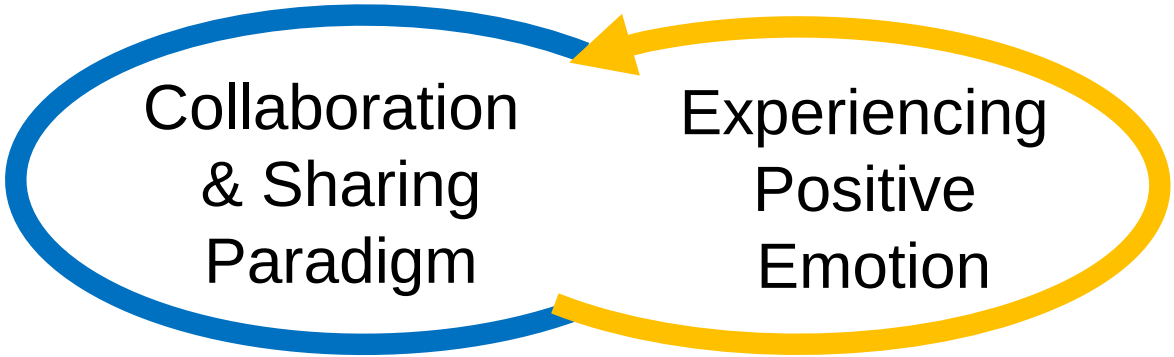
(Tissingtone & Senior, 2011)

Experienced positive emotion in SNS

Active Knowledge sharing

Design for Learning Opportunity

Main Factors Causing Emotion



Design for Scaffolding Positive Emotion

Critical Issues for Success
in Open, Smart, and Social Learning Environments

Q & A

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