Teaching and Learning in a Digital Age:

Technologies to support Social, Cognitive and Teaching Presences in Online Environments
SIMULATION EXERCISE

E-LEARNING
To show this poll

1. Install the app from pollev.com/app
2. Start the presentation

Still not working? Get help at pollev.com/app/help
or
Open poll in your web browser
To show this poll

1. Install the app from pollev.com/app
2. Start the presentation

Still not working? Get help at pollev.com/app/help or
Open poll in your web browser
To show this poll

1. Install the app from pollev.com/app
2. Start the presentation

Still not working? Get help at pollev.com/app/help or Open poll in your web browser
To show this poll

1. Install the app from [pollev.com/app](https://pollev.com/app)
2. Start the presentation

Still not working? Get help at [pollev.com/app/help](https://pollev.com/app/help)
or
[Open poll in your web browser](https://pollev.com/app)
Why use a theoretical framework?

**Should we get ice cream?**

- 100 — Yes
- 90 — Yes
- 80 — Yes
- 70 — Yes
- 60 — Yes
- 50 — Yes
- 40 — Probably
- 30 and Below — Umm... Ok, Yes
Why use a theoretical framework?
E-learning represents a shift from the *industrial production of pre-packaged study materials* to educationally shaping the *learning experience* through thoughtful application of thinking and learning collaboratively (p.3).

What can eLearning allow us to do to create a worthwhile educational experience that meets the demands of a knowledge based society? (p.6)“
The Experience of Online Education

Pre-packaged materials & Autonomous Learners
The Experience of Online Education

Transactional Experience
Transactional View of Educational Experience

1. Construct personal meaning through reconstruction of experience
2. Refine meaning by confirming understanding collaboratively within a community of learners
Thinking and Learning Collaboratively

We never learn in isolation. The human instinct is to collaborate (p.11).

The Wright Brothers gave us wings.
Thinking and Learning Collaboratively

“...We never learn in isolation. The human instinct is to collaborate (p.11).”

Paul McCartney and John Lennon held our hands.
Thinking and Learning Collaboratively

We never learn in isolation. The human instinct is to collaborate (p.11).

James Watson and Francis Crick illuminated the structure of life.
Thinking and Learning Collaboratively

We never learn in isolation. The human instinct is to collaborate (p.11).

Larry Page and Sergey Brin brought the internet to our fingertips.
Thinking and Learning Collaboratively

“We never learn in isolation. The human instinct is to collaborate (p.11).”

Ben Cohen and Jerry Greenfield made life taste a little sweeter.
"Digital technologies [e-Learning] require radically new and different notions of pedagogy (Privateer, 1999 p.70)"
Learners adapt to the expectations and characteristics of the environment (p.17).
We are influenced directly through our experiences whether that is with our physical world or through communication with others (p.11).
Influences on Approaches to Learning

1. ASSESSMENT

2. CURRICULUM

3. TEACHING PRESENCE
Community of Inquiry (CoI) Framework
Social Presence

COMMUNICATE OPENLY

GROUP IDENTITY

DEVELOP PERSONAL AND AFFECTIVE RELATIONSHIPS THROUGH INDIVIDUAL PERSONALITIES
Cognitive Presence

“A condition of higher-order thinking and learning focused on critical reflection and discourse (p.26).”
<table>
<thead>
<tr>
<th>Phase</th>
<th>Descriptor</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triggering event</td>
<td>Evocative (inductive)</td>
<td>Recognize problem</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Puzzlement</td>
</tr>
<tr>
<td>Exploration</td>
<td>Inquisitive (divergent)</td>
<td>Divergence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Information exchange</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suggestions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brainstorming</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intuitive leaps</td>
</tr>
<tr>
<td>Integration</td>
<td>Tentative (convergent)</td>
<td>Convergence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Synthesis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solutions</td>
</tr>
<tr>
<td>Resolution</td>
<td>Committed (deductive)</td>
<td>Apply</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Test</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Defend</td>
</tr>
</tbody>
</table>
Teaching Presence
...the design, facilitation and direction of **cognitive** and **social** processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes [experience] (p.27).
Teaching Presence **FUNCTION**

- Bring elements of Col together
- Balance and functional relationships
- Congruent with intended outcomes
- Respecting learner needs
- Encouraging active engagement
Responsibility and Control

TEACHER
- Create and shape the evolving learning environment

LEARNER
- Constructing Personal Meaning
- Little input or transactional control
<table>
<thead>
<tr>
<th>Presences</th>
<th>Categories</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching presence</td>
<td>Design and organization</td>
<td>Setting curriculum and methods</td>
</tr>
<tr>
<td></td>
<td>Facilitating discourse</td>
<td>Shaping constructive exchange</td>
</tr>
<tr>
<td></td>
<td>Direct instruction</td>
<td>Focusing and resolving issues</td>
</tr>
<tr>
<td>Social presence</td>
<td>Personal/affective</td>
<td>Self projection/expressing emotions</td>
</tr>
<tr>
<td></td>
<td>Open communication</td>
<td>Learning climate/risk-free expression</td>
</tr>
<tr>
<td></td>
<td>Group cohesion</td>
<td>Group identity/collaboration</td>
</tr>
<tr>
<td>Cognitive presence</td>
<td>Triggering event</td>
<td>Sense of puzzlement</td>
</tr>
<tr>
<td></td>
<td>Exploration</td>
<td>Information exchange</td>
</tr>
<tr>
<td></td>
<td>Integration</td>
<td>Connecting ideas</td>
</tr>
</tbody>
</table>
...the **key** to adopting technologies for e-Learning is to recognize their **potential** to support collaborative constructivist approaches to teaching and learning (p.90-91).
“...e-Learning is less about issues of technology and bridging distances as it is about creating communities of learners engaged in collaborative inquiry (p.89).”
The incredibly easy, completely free Q&A platform
Save time and help students learn using the power of community

- Wiki style format enables collaboration in a single space
- Features LaTeX editor, highlighted syntax and code blocking
- Questions and posts needing immediate action are highlighted
- Instructors endorse answers to keep the class on track
- Anonymous posting encourages every student to participate
- Highly customizable online polls
- Integrates with every major LMS

Students Get Started  Professors and TAs Get Started  View a Real Class

Learn more about how Piazza complies with FERPA
I went to the site Learn Zillion – Learn Zillion’s website houses resources for educators addressing the Common Core State Standards in mathematics and English language arts which includes video lessons, assessments, and progress reports for grades 2-12. Its work is the contribution from master teachers all over the country. The resources are targeted to prepare students to success in the Core.

I found a video I can use to introduce a topic and resources that are amazing. I can print interactive worksheets and manipulatives depending on what I put in the search engine. Educators post their videos either directly teaching students or showcasing their unit and how they taught it in step by step instructions.

WOW! I checked this out. This is great! Why reinvent the wheel? I must share this with my colleagues! I may sign up myself! I see it also has a student login, as well as ability for your district to get a premium account.

This sounds like a wonderful tool to use! If only it covered 1st grade as well! I need to share this with my 2-4 grade teaching friends! Thanks Ashlie!

This is a great find, Ashlie. I clicked on what’s new for 2015 and they have added more math content with promises for other content areas coming soon. They also added more features like interactive math assessments that track students’ progress and they’ve even incorporated Google classroom! Thanks!
https://learnzillion.com/resources/75569

I was just introduced to Learn Zillion last week. It is wonderful. Thanks for sharing.
Sincerely, Bridget

I love how it seems to stay up to date in teaching styles and lessons. I can see how Learn Zillion would catch your eye.
### PechaKucha Project
Katherine, Did you post your PechaKucha assignment? I’m about to grade and I am not seeing your assignment in Bb.

### WEEK 9/6 - 9/12

- **Instr**
  - **Week 3: Discussion 1 - Other...**
    In Part II of your textbook you read about theories of human development (chapter 7). There were three theories of how

---

**Student Participation Report**

<table>
<thead>
<tr>
<th>Name, Email</th>
<th>days online</th>
<th>posts viewed*</th>
<th>contributions**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>38</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>38</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>39</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>28</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>41</td>
<td>53</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>43</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>39</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>45</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>29</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>37</td>
<td>45</td>
</tr>
</tbody>
</table>
Walking Discussions

In chapter 2 this week on page 72 “Bits & Bytes” the authors discuss how to minimize the negative effects of blue light. For this walking discussion I want you to choose the smartphone device from one of the link below that you own. Then follow the instructions and turn on your night shade filters if you aren’t currently doing this.

[Link to Apple Support]

Night Shift automatically adjusts the colors of your display to the warmer end of the spectrum – making the display easier on your eyes.

[Link to Laptop Mag]

How to Eliminate Blue Light with Windows 10 Night Light
In chapter 2 this week on page 72 "Bits&Bytes" the authors discuss how to minimize the negative effects of blue light. For this walking discussion I want you to choose the smart phone device from one of the link below that you own. Then follow the instructions and turn on your night shade filters if you aren't currently doing this.

https://support.apple.com/en-us/HT207570

Apple Support

**Use Night Shift on your iPhone, iPad, and iPod touch**

Night Shift automatically adjusts the colors of your display to the warmer end of the spectrum—making the display easier on your eyes.

https://www.laptopmag.com/articles/enable-windows-10-night-light

laptopmag.com

**How to Eliminate Blue Light with Windows 10 Night Light**

Studies show blue light can keep you up at night. Here's how to reduce it in Windows 10.

https://www.androidcentral.com/how-manually-turn-dark-mode-android-p

Android Central

**How to manually turn on dark mode in Android Pie**

Android Pie is officially here, and with it comes a setting for manually enabling a dark theme with the Pixel Launcher!
Finally read this article: https://www.health.harvard.edu/staying-healthy/blue-light-has-a-dark-side

Blue light has a dark side - Harvard Health
Light at night is bad for your health, and exposure to blue light emitted by electronics and energy-efficient lightbulbs may be especially so. At night, light throws the body’s biological clock—the circadian rhythm—out of whack.
Sleep... (116 kb)

What did you find shocking about this article?

Go out and find another article about "benefits of eliminating blue light from electronic devices" and post it here to share with your colleagues.

You have until midnight tonight to participate in this discussion. I'll be online until 12:30 this afternoon...:-)
Walking Discussions

Alex 4:10 PM
I really liked this article a lot. But I did not realize how much that effected us when we sleep. I am one that does not like pitch dark at night time. So I always leave a lamp on and the tv. But I always find myself waking up throughout the night so that makes sense now. I will probably go out and look into buying a dim red night light like suggested in the article and see how that works out for me.

https://www.healthline.com/nutrition/block-blue-light-to-sleep-better

Healthline
How Blocking Blue Light at Night Can Transform Your Sleep

By blocking blue light in the evening, you can prevent the disruption in the natural sleep-wake cycle caused by artificial lighting and electronics.

Jun 4th, 2017 (23 kB)

Bryan Lovell 4:56 PM
I had always heard that staring at a screen playing video games all day wasn't good for you. However I had no idea that it could possibly be from blue light. The thought that it could possibly lead to cancer or deterioration of your retina is terrifying. This video helped me understand blue light more and that it is something me and my family should look into.

https://youtu.be/3tJ5Ou0q4lF

Message #chapter2walkndiscuss
Introduce Yourself

- Name
- Title
- School
- Why are you here?
- How do you feel about taking this course?
Knovio
Adaptive Learning: Revel

Assignment Due August 30
By 11:59 PM CDT / Worth 75 points
⚠️ You will accept this assignment late until December 14

Message from Leighton, Rebecca
Chapter 1 readings, reading quizzes, and chapter quiz can be accessed by clicking the "view" button in the upper left hand corner.

CHAPTER 1: The Impact of Technology in a Changing World
Introduction: The Impact of Technology in a Changing World
Part 1: Technology in Society
Technology Connects Us with Others
The Importance of Computer Literacy (15 points)
Part 2: Emerging Technologies and Ethical Computing
Working with Artificial Intelligence and Other Information Technologies
Ethical Computing (15 points)
Chapter Review
Chapter Quiz: Assessment (45 points)
Quality Assurance in Online Courses

- Course Overview & Introduction
- Learning Objectives (Competencies)
- Assessment and Measurement
- Instructional Materials
- Learning Activities & Learner Interaction
- Course Technology
- Learner Support
- Accessibility and Usability

- Course Design
  - Goals and Objectives
  - Content Presentation
  - Learner Engagement
  - Technology Use

- Interaction and Collaboration
  - Communication Strategies
  - Development of Learning Community
  - Interaction Logistics

- Assessment
  - Expectations
  - Assessment Design
  - Self-assessment

- Learner Support
  - Orientation to Course & LMS
  - Supportive Software (plug-ins)
  - Instructor Role and Information
  - Course / Institutional Policies
  - Technical Accessibility Issues
  - Accommodations for Disabilities
  - Feedback
Community of Inquiry Survey Instrument (draft v15)
Developed by Ben Arbaugh, Marti Cleveland-Innes, Sebastian Diaz, Randy Garrison, Phil Ice, Jennifer Richardson, Peter Shea & Karen Swan

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.
4. The instructor clearly communicated important due dates/time frames for learning activities.

Facilitation of Discourse
5. The instructor was helpful in identifying areas of agreement and disagreement on course topics that helped me to learn.
6. The instructor was helpful in guiding the class towards understanding course topics in a way that helped me clarify my thinking.
7. The instructor helped to keep course participants engaged and participating in productive dialogue.
8. The instructor helped keep the course participants on task in a way that helped me to learn.
9. The instructor encouraged course participants to explore new concepts in this course.
10. Instructor actions reinforced the development of a sense of community among course participants.

Direct Instruction
11. The instructor helped to focus discussion on relevant issues in a way that helped me to learn.
12. The instructor provided feedback that helped me understand my strengths and weaknesses.
13. The instructor provided feedback in a timely fashion.
Recommended Readings
