

# Instructors' Perceptions of Active Learning in College Online Courses

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# Essential Components of an Online Course

QUALITY MATTERS  
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Quality Matters™ Rubric Standards  
 Fifth Edition, 2014, with Assigned Point Values ■■■■

Standards	Points
<b>Course Overview and Introduction</b>	
1.1. Instructors make clear how to get started and where to find course components.	3
1.2. Learners are introduced to the purpose and structure of the course.	3
1.3. Etiquette expectations (sometimes called "netiquette") for online discussions, email, and other forms of communication are clearly stated.	2
1.4. Course and/or institutional policies with which the learner is expected to comply are clearly stated, or a link to current policies is provided.	2
1.5. Minimum technology requirements are clearly stated and instructions for use provided.	2
1.6. Prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	1
1.7. Minimum technical skills expected of the learner are clearly stated.	1
1.8. The self-introduction by the instructor is appropriate and is available online.	1
1.9. Learners are asked to introduce themselves to the class.	1
<b>Learning Objectives (Competencies)</b>	
2.1. The course learning objectives, or course program competencies, describe outcomes that are measurable.	3
2.2. The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3
2.3. All learning objectives or competencies are stated clearly and written from the learner's perspective.	3
2.4. The relationship between learning objectives or competencies and course activities is clearly stated.	3
2.5. The learning objectives or competencies are aligned to the level of the course.	3
<b>Assessment and Measurement</b>	
3.1. The assessments measure the stated learning objectives or competencies.	3
3.2. The course grading policy is stated clearly.	3
3.3. Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.	3
3.4. The assessment instruments selected are organized, valid, and called to the learner work being assessed.	2
3.5. The course provides learners with multiple opportunities to track their learning progress.	2
<b>Instructional Materials</b>	
4.1. The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.	3
4.2. Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.	3
4.3. All instructional materials used in the course are appropriately cited.	2
4.4. The instructional materials are current.	2
4.5. A variety of instructional materials is used in the course.	2
4.6. The distinction between required and optional materials is clearly explained.	1
<b>Course Activities and Learner Interaction</b>	
5.1. The learning activities promote the achievement of the stated learning objectives or competencies.	3
5.2. Learning activities provide opportunities for interactions that support active learning.	3
5.3. The instructor's plan for classroom response time and feedback on assignments is clearly stated.	3
5.4. The requirements for learner interaction are clearly stated.	2
<b>Course Technology</b>	
6.1. The tools used in the course support the learning objectives and competencies.	3
6.2. Course tools provide learner engagement and active learning.	3
6.3. Technologies required in the course are readily obtainable.	2
6.4. The course technologies are current.	1
6.5. Links are provided to privacy policies for all external tools required in the course.	1
<b>Learner Support</b>	
7.1. The course instructors articulate or link to a clear description of the technical support offered and how to obtain it.	3
7.2. Course instructors articulate or link to the institution's accessibility policies and services.	3
7.3. Course instructors articulate or link to an explanation of how the institution's academic support services and resources can help learners succeed in the course and how learners can obtain them.	2
7.4. Course instructors articulate or link to an explanation of how the institution's student services and resources can help learners succeed and how learners can obtain them.	1
<b>Accessibility and Usability</b>	
8.1. Course navigation facilitates ease of use.	3
8.2. Information is provided about the accessibility of all technologies required in the course.	3
8.3. The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	2
8.4. The course design facilitates readability.	2
8.5. Course multimedia facilitates ease of use.	2

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# What is Active Learning?

Students solve problems, answer questions, formulate questions of their own, discuss, or explain.





# Active learning instructional strategies



**Project-based learning**



**Writing assignments**



**Problem-based learning /Case studies**



**Discussion/debate**



**Concept maps**



**Gamification  
Game-like learning  
Role playing, simulations**



# Case Studies



## NATIONAL CENTER FOR CASE STUDY TEACHING IN SCIENCE

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FEATURED CASE

### I Scream for Ice Cream: Lactase Persistence in Humans

Nadia Sellami, UCLA, Julie A. Morris,  
University of Denver, and Sheela Vemu,  
Waubonsee Community College

[VIEW CASE](#)



### ABOUT

The mission of the National Center for  
Case Study Teaching in Science  
(NCCSTS) is to promote the nationwide  
application of active learning techniques

### CASE COLLECTION



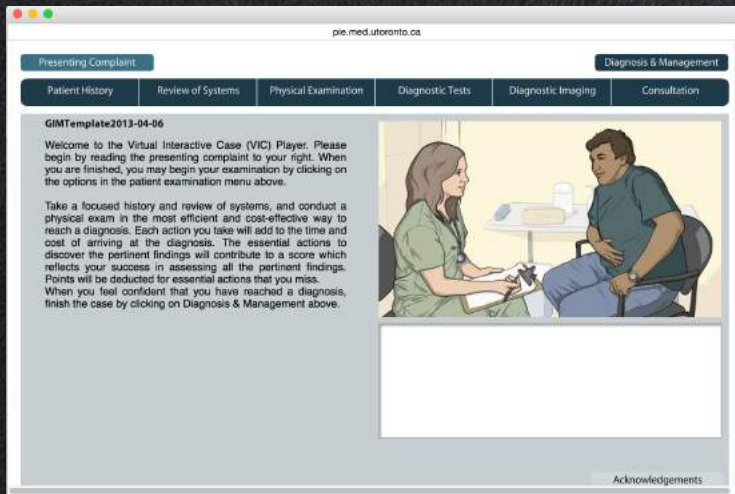
### FALL CONFERENCE

Registration is now open for our Fall  
Conference on Case Study Teaching in  
Science, which will take place this year on  
September 15 and 16, 2017, at the Buffalo



# Simulations, serious games, and virtual worlds

## Example - simulations for nursing students



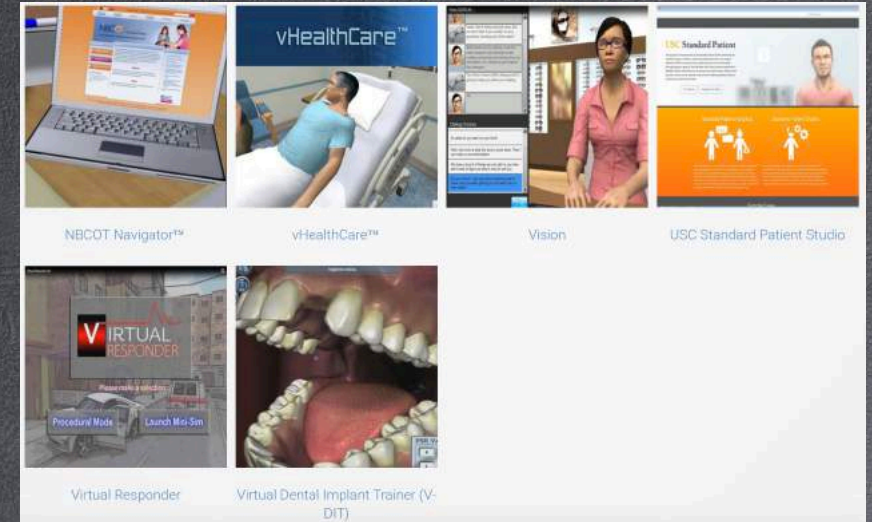
Virtual Interactive Case (VIC)  
system

<http://pie.med.utoronto.ca/vic/index.htm>



VitalSims

<http://vitalsims.com/clinicalcare/>



vHealthCare™

<http://www.breakawaygames.com>



# Collaborative project-based learning

## Example – research project

Collaborative research project using VoiceThread or a discussion board

**Task Two: Cool Tool Presentation and Open Discussion**

This task is due by 9am on Wednesday, **September 23**.

Thank you for bringing great presentations about online cool tools! We will have open discussions with your presentation slides during this week. Here are your classmates' presentation slides.

1. First, choose at least two presentations you are interested in and read the slides this week.
2. Second, after reading the chosen slides, make 2-3 voice or video-based comments or/and questions in VoiceThread for each presentation. **Make a clear, succinct, 1-2 minutes comment for each presentation.** This task is due by 9am, **Monday, September 21**. Your responses or/and answers to your classmates' comments or/and questions is due by 9am, **Wednesday, September 23**.

- **Audacity** (Stephen Hutchings): <https://voicethread.com/share/7044426/>
- **Khan Academy** (Christi Mcdaniel): <https://voicethread.com/share/7047392/>
- **Aurasma** (Tom Seward): <https://voicethread.com/share/7046741/>
- **Socrative** (Madison Smith): <http://voicethread.com/share/7048482/>
- **Edmodo** (Noco Walls): <https://voicethread.com/share/7054899/>
- **Edmodo** (Lindsey Holder): <https://voicethread.com/share/7053688/>
- **Skype** (Phillip Edwards): <http://voicethread.com/share/7054539/>
- **Google Classroom** (Marissa Bohan): <http://voicethread.com/share/7054422/>
- **IXL Learning** (Kimberly Vinson): <https://voicethread.com/share/7053659/>
- **FlipGrid** (Justin Ronald Peacock): <https://voicethread.com/share/7055216/>
- **Schoology** (Nikki Grimes): <http://voicethread.com/myvoicethread/7055184/>
- **ACT WorkKeys and KeyTrains** (Julie Cook): <http://voicethread.com/share/7057748/>
- **Poll Everywhere** (Romania Clark): <https://voicethread.com/share/7058851/>
- **StoryBird** (Botzy Santiana): <http://voicethread.com/share/7054450/>
- **Educreations** (Demetris Dawson): <https://voicethread.com/share/7067006/>

Collaborative project using Google Document

**Case One: Communication and Collaboration**

The grant your school applied for was awarded and you have access to several new computers in your classroom. You are excited about the computers and want to use them to support students' communication and collaboration, which are important skills for your students to have. From your previous experience, you know that students are more motivated to learn when they are given the opportunity to collaborate in groups and communicate their ideas to a "real audience". More importantly, they can help each other with difficulties and negotiate conflicting opinions though collaboration, which leads to deeper understanding of course content.

However, you remember that things don't always go smoothly when your class does collaborative projects. You remember that during the last collaborative learning project, students seemed to be actively talking to each other, but not everyone learned as much as they were expected to due to a number of problems. For example, some students contributed a lot and even dominated the teamwork, while some students were not truly engaged and kept talking about irrelevant things. Some groups of students really seemed to respond well from the activity, while others seemed to learn very little. While negotiating different ideas, some students failed to listen to each other carefully before they gave responses, which resulted in unpleasant collaboration that ended up with conflicts, disagreements, and even quarrels.

The current curriculum standard you are planning to teach can best be achieved by using teaching strategies that emphasize peer interaction and collaborative learning. You know

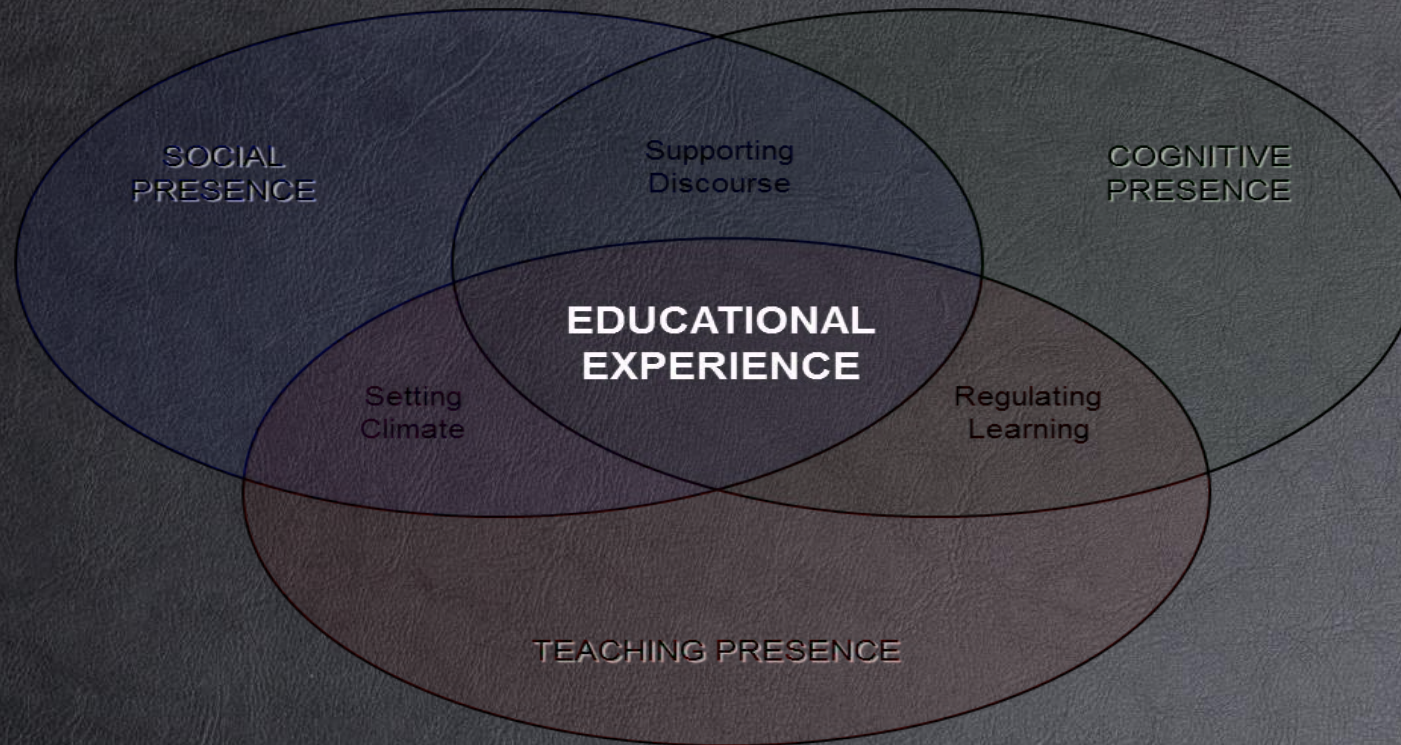


# Types of interactions in active learning





# Online Community of Inquiry (Rourke, Anderson, Garrison, & Archer, 2001)





# Cognitive Presence (Learner-content interaction)

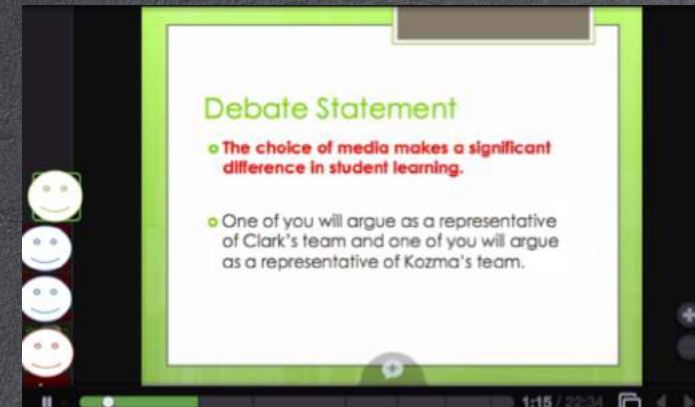
- Use video or audio to deliver content (Camtasia, YouTube)
- Add interactive elements to content (Interactive presentation tools like SlideShare, Prezi)
- Provide meaningful exercises and activities (Digital Portfolio using Weebly, Google Site, About.me, Wix, Wordpress; Drawing concept maps using bubbl.us or Popplet)

The screenshot shows a website titled "dweek4" with a green header. The main content area is titled "EDIT5202 Online SP2015" and features a search bar. Below the header, there is a "HOME" section with a list of weekly tasks (AWEEK1 to LWEEK12-APRIL 1) and a detailed list of tasks for the current week (February 4-11). The tasks include reading and response with Flipgrid, reading and discussion in Google Group, and communication and collaboration toolkits. A banner for "TECHNOLOGY PROJECTS" is displayed below the task list. At the bottom, there is a section for "GeoGebra VoiceThread Presentation" with a logo and a brief description of the presentation content.



## Social Presence (Learner-Learner interaction)

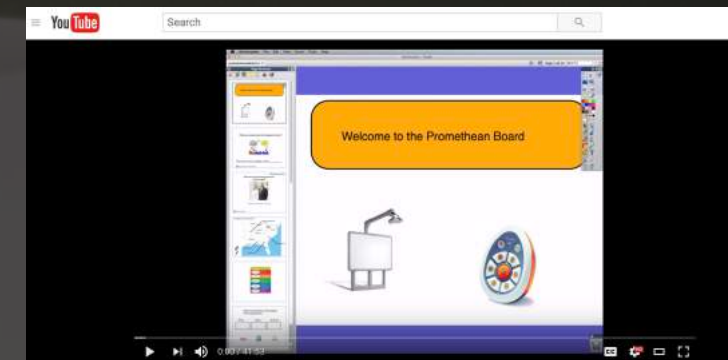
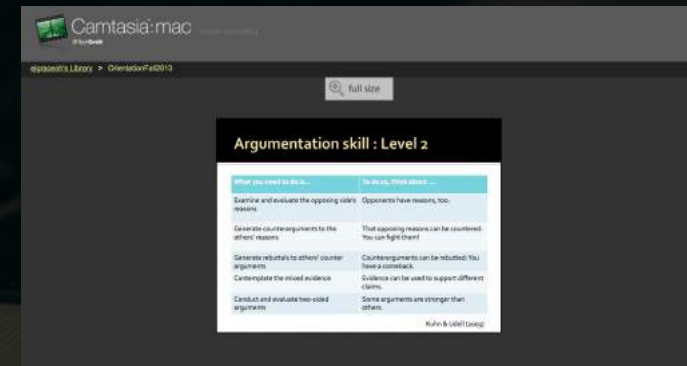
- Encourage dialogue, conversation, debate
- Include group projects
- Integrate ice-breakers/orientation activities
- Use social tools for collaboration and group work (Blogs, Wikis)
- Social Media: Twitter, Facebook, Pinterest, Instagram
- Skype, Google hangouts, VoiceThread, Google Docs
- Netiquette: Complimenting, expressing appreciation, and agreement



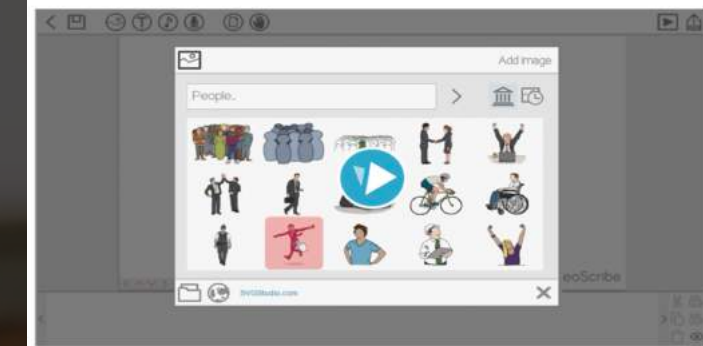


# Teaching Presence (Learner-instructor interaction)

- Video-based course materials using Camtasia, Jing and TED-Ed
- Video/audio Conferences – Collaborate, Skype, Google hangouts (lectures using interactive white boards)
- Emails
- Announcements through a LMS
- Voice/video feedback



How VideoScribe works

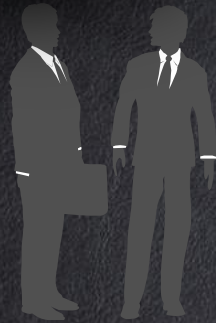




## Introduction to our research study

The purpose of this study was to understand online instructors' process of incorporating and sustaining active learning strategies, which potentially improve learner outcomes and satisfaction.

**What active learning strategies online instructors use?**



**What prevents online instructors from using active learning strategies?**



**What evidence have online instructors seen regarding the effectiveness of interactions in active learning?**





# Data collection and analysis



- 14 online instructors
- Semi-structured interviews and documentation
- March-April, 2017



- Each interview was audiotaped. Verbatim transcripts were developed from each audio recording.



- Open coding and constant comparison were used to analyze the transcripts.



# Preliminary Findings



The participants perceived learner-instructor interactions as very important and used various strategies to establish teacher presence – phone conversations, one-on-one synchronous meetings, emails, and feedback.

The participants incorporated learner-learner interactions through whole-class text-based discussion and case studies, but some of the participants expressed negative perceptions of (or concerns about) small group activities and presented a lack of knowledge about using appropriate technology to promote interactions between students.

The participants perceived learner-content interaction as important, so they used different types of content – objective videos, third party-created video content, publisher platforms, and simulations.

Online instructors indicated uncooperative or unmotivated students, students' technical skills, students' technology accessibility, and a lack of time to create innovative course activities as challenges of online interactions.





# Discussion

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What are your concerns about using active learning strategies in your online courses?

What are high-impact & low-risk active learning strategies in online courses?





Q&A ?!





# Thank you

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