CENTER FOR RESEARCH ON TEACHING EXCELLENCE
TEACHING AND TECHNOLOGY WORKSHOP SERIES

USING WIKIS TO ENHANCE LEARNING

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Presentation Outline

1. What is a wiki?
2. How can wikis enhance teaching and learning?
3. What are the instructional and technical considerations?
4. What kinds of learning activities can wikis support?
5. Sample wiki activities
6. Resources

Workshop Outcomes

By the end of the presentation, participants will be able to…

1. Describe key features and uses of wikis for instructional purposes.

2. Discuss teaching and learning benefits of wikis.

3. Develop wiki-supported activities that address specific learning goals.

Wiki Defined

□ First appeared in the mid-1990s, a wiki is a web page that can be viewed and modified by multiple users.

□ Robust, open-ended, collaborative workspace.

□ Permit asynchronous communication and group collaboration via internet.

□ Incorporate text, sounds, movies, and images.

□ The most popular wiki is [Wikipedia](), which has over 3 million English articles contributed by over 75,000 authors.

The Ideal Collaboration Tool

- According to Wikipedia, "Collaboration is a recursive process where two or more people...work together toward an intersection of common goals...by sharing knowledge, learning, and building consensus."

- Features of a good collaboration tool:

  - promotes communication among group members

  - encourages individual and group responsibility

  - serves as a central repository of resources

  - allows natural interactions

  - be easy to use and learn

Constructivist Learning

- Encouraging active learning, cooperation, and collaboration among students are among the seminal Seven Principles for Good Practice in Undergraduate Education (Chickering & Gamson, 1987).

- "Constructivist learning occurs when learners actively create their own knowledge by trying to make sense out of material that is presented to them" (Mayer, 1999)

A wiki is the ideal collaboration tool!

Wikis and the SoTL: Benefits

- Students found wikis useful for arranging information and sharing knowledge, while instructors thought wikis made managing and marking group work easier and more effective (Elgort 2007)

- With a wikis' user-friendly web interface, "the technology recedes into the background, allowing anyone to become a publisher" (Seven Things to Know about Wikis, 2005).

- As wikis support writer and editor roles, this opportunity to collaborate on content sharing increases student engagement.

Wikis and the SoTL: Challenges

- The challenge is to facilitate the use of wikis to promote deep learning (Biggs 1987; Ramsden 2003)

- Students are good at posting information on wikis, but not so good at sharing information or exchanging ideas, resulting in mostly surface thinking (Engstrom and Jewett 2005).

- Wikis are most useful as a tool to manage and update existing knowledge, but of limited use to collaboratively create new knowledge (Raman et al. 2005).

Wikis in the Classroom

- Class Resources
  - Use wiki as a place for storing class resources (i.e., syllabus, class notes, presentation slides, schedules, etc.)

- Knowledge Building
  - Set up wiki as a main topic page with links to subpages assigned to different students (i.e., Learning > Theories of learning)

Wikis in the Classroom

- Knowledge Refinement
  - Set up wiki as a shared document that groups of students will work on together over the course of the semester (i.e., group research paper or literature review).

- Peer Revision
  - Setup wiki as a forum for students to provide peer reviews of one another's work. Students can provide direct word/sentence-level feedback via edit feature or conceptual feedback via comment feature.

Wikis in the Classroom

☐ Other ways to use wikis

- ◻ Electronic portfolios
- ◻ Discussion forum
- ◻ Video playlist
- ◻ Analysis grid
- ◻ Lecture or poster session slides
- ◻ Bibliography

Wiki Features: Text-Based

Wiki Features: Tables

☆ Active Learning Grid

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Increasing active cognitive engagement has become an important focus for instruction. In a typical classroom, it is believed that almost two thirds of the students are not actively engaged in the learning process. When students are not actively engaged in their learning, they may miss out on important content and understandings.

It is also important that students are actively engaged in multimedia learning environments in activities that promote sense-making as opposed to rote learning. Mayer has created a grid that illustrates the two types of active learning and their levels.

On the Active Learning grid below, give an example of learning at each of the levels. Be sure and put your name after your contribution.

Low behavioral activity/Low cognitive activity Ineffective passive instruction: Does not foster meaningful learning outcome	Low behavioral activity/High cognitive activity Effective passive instruction: Fosters meaningful learning outcome
A student may read a textbook inundated with what they may perceive as meaningless facts Children playing matching games with bio flash cards which could be more of a memorazation learning	An example Mayer gives in his book "Multimedia Learning", is that of a Meteorology student who is actively learning by watching a multimedia presentation that is a short narrated animation about lightning. While watching this animation, the student is piecing together in his head how a lightning forms.

Wiki Features: Posters

Sample Course Wikis

- Sample Course Wiki
  - Writing 101 - Writing in Psychology (F09) http://goo.gl/31T2J (case sensitive)
  - Writing 1 – Academic Writing (F10) http://goo.gl/jJTg8 (case sensitive)
- Sample Student E-Portfolio Wiki
  - Writing 117 - Writing in Social Sciences and Humanities (F08) http://goo.gl/8UTo6 (case sensitive)

Implications for Instructors and Students

- Instructor Benefits
  - Centralize course resources such as syllabus, lecture materials, and assignments
  - Track student engagement and contributions via page history
  - Coordinate small group activities and meetings
  - Draw supplemental course materials from across the internet
- Student Benefits
  - Provides an easy and simple to use interface
  - Centralizes multimedia sources related to paper/project
  - Facilitates collaboration with peers on group projects and activities
  - Offers anytime, anywhere access.

Instructor Resources

- Digitally speaking http://digitallyspeaking.pbworks.com/

- 7 Things You Should Know about Wikis
  http://net.educause.edu/ir/library/pdf/ELI7004.pdf

- Wikify Your Course: Designing and Implementing a Wiki for Your Learning Environment
  http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/Wik...

- Wiki Matrix (compare different available wikis on the internet)
  http://www.wikimatrix.org/

- Collaboration Tools by Cyprien Lomas, Michael Burke, and Carie L. Page
  http://net.educause.edu/ir/library/pdf/ELI3020.pdf

Works Cited

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Questions? Comments?