Synchronous Technology Integration in a Blended Course: The Instructors and the Students' Experiences
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Synchronous Mode in Higher Education
• Role in online courses
  – socializing, brainstorming, or virtual office hours (Branon & Essex, 2001)
• Issues
  – high costs, bandwidth, tools, and scheduling issues (Duemer et al., 2002; Learning Circuits, 2006)
• Current and future trends
  (Learning Circuits, 2006)

Research Purposes
• To investigate how synchronous tools were incorporated in a graduate course
  – To identify the students' and the instructors' perceived benefits and disadvantages
  – To examine the instructional approaches
• To suggest instructional guidelines

Research Context
• Course: a graduate course
• Students: 11 residential students & 22 distance students
• Instructors: One full-time faculty & 5 teaching assistants
• Course Assignments:
  – Media design products
  – Peer critique on ongoing projects

Research Context
• Synchronous Peer Critique
  – Blended team from two contexts

Synchronous Peer Critique

Research Context
Synchronous Peer Critique
• Small-group based discussion
• Three to four students and one instructor (facilitator)
Research Context
Synchronous Peer Critique
- Mediated by the Breeze system & a Telephone

Data Collection
- Data collected from January to July in 2006
- Open-ended questionnaire and interview
- Participants
  - 4 distance students
  - 4 resident students
  - 1 primary faculty
  - 4 teaching assistants
- In person or face-to-face interview

Data Collection
- Additional Data Sources
  - Online course evaluation survey
  - Asynchronous discussion records
  - Instructors' critique reports
  - One of the researchers' teaching experiences in this course

Findings
- Online course evaluation survey
  - Seven (of 11) residential students and Nineteen (of 22) distance students participated in the survey
  - Synchronous critique were helpful.
    - 85% of the residential respondents
    - 84% of the distance respondents
What are benefits of synchronous interactions?

Perceived Benefits of Synchronous Interaction

- Meaningful and active engagement
- Fast feedback
- Rich verbal cues
- Social presence
- Instructional supports

Perceived Benefits of Synchronous Interaction

- Synchronous Overcame Previous Problems with Asynchronous A distance student wrote: "The group work was challenging [in the other course]. . . but it also helped me to feel connected, and like I was on the same page as at least a few other people = ). I'm looking forward to some chats so I can feel connected again."

Perceived Benefits of Synchronous Interaction

- Supported fast feedback
  - For instructors:
    - Instantly addressed questions
    - Encourage more active participation
  - For students:
    - Directed questions to instructors
    - Exchanged feedback between students

Perceived Benefits of Synchronous Interaction

- An instructor said: "It is consistently happening to students [in an asynchronous forum]. Many of them don't know what they have to [say] and they are insecure in being able to discuss the topic. They are very cautious; conservative in the amount of what they say or what they try to address. [However] synchronously, especially with voice, they go faster and they try things out little more."

Perceived Benefits of Synchronous Interaction

- In this blended course, the residential students probably benefit from seeing the work of the distance students because many of them are employed professionally now and just gave them [the residential students] a wider group to interact with."
Perceived Benefits of Synchronous Interaction

- Provided Rich Verbal Cues
  - tones and emotions

A student said:
"When you actually hear the voice speaking those same words there is helpfulness and kindness in the tone. There is little room for error in the meaning of the words or critique when you are speaking in real time and can immediately correct any misconceptions of your intent." (Park & Bonk, in press)

Perceived Benefits of Synchronous Interaction

- Increased Social Supports
  - encouragement and compliment
  - humor and verbal immediacy

One instructor wrote:
"The critique participants joked around and linked back to times they have met in other critique sessions. They talked about the process they had been going through while working on this project and compared experiences. They appeared to enjoy and value the meeting together."

Perceived Challenges of Synchronous Interaction

- Time constraints
- Lack of deeper thinking and reflection
- Superficial feedback
- Technology related issues
- Language barriers

Instructional Supports

- Prepare Students
- Promote an Active Involvement

Instructional Supports

- Prepare Students
  - Provided ground rules and guidelines
  - Held practice sessions
  - Provided materials

- Structured the discussion
- Presentation, Q&A, Critique, & Summary
- Scaffolded students' discussion
- Provided info, clarified, summarized, brought up issues, directed question to a quiet student
- Used a small-group & flexible management
**Instructional Supports**

- Student A: "She [the instructor] effectively controlled the pace and led us to focus on important points of our projects. She also came up with meaningful questions or suggestions about our projects, which gave me a lot of help."

- Students B: "A summary at the end by either the instructor or the participant was helpful. Even though I had the same remarks noted it was good to hear the instructor repeat them."

- Students C: "Her comments were made clearly; they were constructive with a positive tone, but they were critical...which you need...I felt like her insights actually taught me to see slightly differently."

**Conclusions**

- Unique benefits of the synchronous mode of communication
  - live, fast, and interactive
- Cognitive and social supports
- Importance of instructional approaches
- Team teaching capability
- Proper selection of synchronous tools

**Suggestions**

- Prepare Students for Synchronous Learning
  - Clarify technology requirements.
  - Explain task purposes.
  - Schedule practice sessions.
  - Be flexible. (tools, duration and number of sessions, number of participants, meeting)

**Suggestions**

- Promote Active and Meaningful Interactions
  - Scaffold students' discussion.
  - Create a social climate.
  - Provide materials to be discussed.
  - Facilitate a small-group based discussion.

**Suggestions**

- Provide Faculty with Planned Supports
  - Provide technology options.
  - Offer faculty professional development.
    - Pedagogical skills and technology skills
    - Provide new incentive programs.
      - e.g., Funding, a new reward system, technical and instructional infrastructure

**Comments & Suggestions (Happy to send a copy of our papers)**

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