

Creating an Opportunity for Online Students Who Miss the Social Community of In-Person Class Experiences

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Agenda

- Background and Purpose
- Methodology
- Context of Study
- Analysis
- Cycle 1 Changes and Design Propositions
- Cycle 2 Changes and Design Propositions
- Questions

Background and Purpose



Benefits

- Increased flexibility (Bower et al., 2014)
- Enhanced accessibility (Bell, Sawaya, & Cain, 2014)
- Multiple perspectives (Bower et al., 2015; Rogers et al, 2003)

Challenges

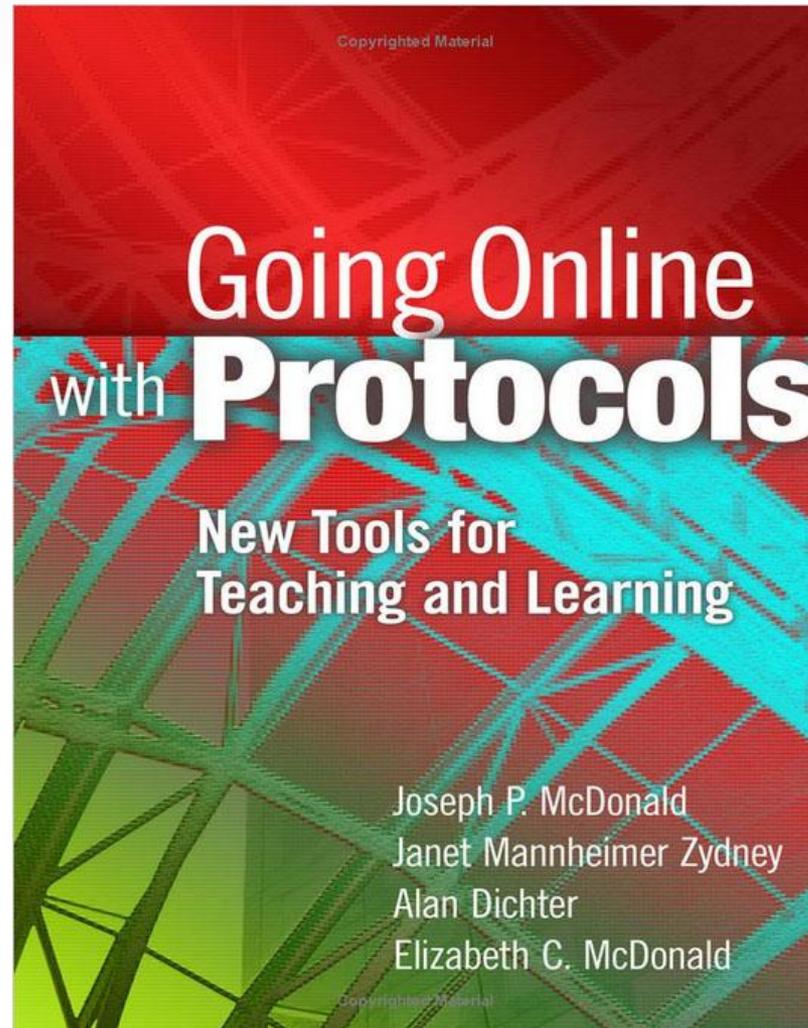
- Technology hurdles (Bell et al., 2014; Bower et al., 2015; Park & Bonk, 2007)
- Cognitive overload (Bower et al., 2015; Cunningham, 2014; Popov, 2009)
- Authentic co-presence (Bell et al., 2014; Cunningham, 2014).
- Timing and transition issues (Bell et al., 2014; Popov, 2009)
- Limited research on pedagogical designs

Initial Ideas



- Expansion of “tech navigator” role (Bell et al., 2014)
- Multi-screen projection, individual webcams, mixed groups (Bell et al., 2014; Sztetzo, 2015)
- Online protocols (McDonald, et al., 2012)

What is a protocol?



Learning from Speakers Protocol

PURPOSE: To structure the presentation experience so learning is maximized.

Presenter(s) speak (25 minutes)

Organizing (5 minutes)

Participants get into groups and brainstorm questions. Then, prioritize questions into top question(s).

Top Questions (2 minutes)

A representative from each group submits top questions

Answering (10 minutes)

Presenter(s) answer questions, building connections

Sharing (Time Permitting)

Participants share their experience of using the protocol

Purpose & Research Question

How do students' and instructor's experiences in the blended synchronous learning environment influence its **technological** and **pedagogical** design propositions?

Methodology



Design-based Research

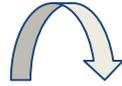
- “... a systematic but **flexible** methodology aimed to improve educational practices through **iterative** analysis, design, development, and implementation...”

(Wang & Hannafin, 2005, p. 6)

- Used to derive contextualized design principles and theories

Initial Design Propositions

Starting Point



- Reduce instructor overload by having technical support (TAs, tech navigators)
- Create co-presence through mixed groups and visual connections
- Provide scaffolding through protocols

Cycle 1



Cycle 2

?

Context of Study



Two Cycles

Cycle 1

- Fully online class
- 17 students
- 3 iterations
- Half volunteered to come to campus

Cycle 2

- On-campus class
- 8 students
- 3 iterations
- Iteration 1: Two online
- Iteration 2: Half online
- Iteration 3: Half online



Setting



Analysis



Qualitative Analysis

- **Data collection:** surveys, observations, interviews, and focus groups
- **Data-based design changes**
- **Interpretive:** Assertions, warrants, and disconfirming evidence on small sample then data corpus (Erickson, 1986)
- Assertions → **Design propositions**

Cycle 1 Changes



Technological Design Changes

	Iteration 1	Iteration 2	Iteration 3
Tool	Instructor-hosted whole group and breakout sessions	Instructor-hosted whole group; student-hosted small group	Instructor-hosted whole group; student-hosted small group (only for online students)
Audio	Headsets for everyone	Headsets for everyone	Headsets only for online students

Pedagogical Design Changes

	Iteration 1	Iteration 2	Iteration 3
Protocol	Quick go-rounds	Flexible time ranges	Flexible time ranges
Resources	Emailed tasks	Emailed tasks, resource links, PowerPoint, and facilitator notes	Emailed tasks, resource links, PowerPoint, and facilitator notes

Cycle 1 Design Propositions



Streamline technology to reduce instructor overload and support pedagogy

Assertion: Technology as a limitation

“ I was really surprised at how technology almost interrupted it.

-on-campus student, interview”

Create co-presence through visual or physical connections

Assertion: Seeing is believing

I think the HoT session definitely felt a little more authentic and closer to an in-person session just by the fact that you're looking and seeing students in a classroom and you see the teacher there walking around the room.

-online student, interview

Create Flexible Schedule That Builds in Adjustable Time

Assertion: Hyperawareness of Time

“ I think if you're under a time limit like two minutes ..., I think it can be tough putting it under time constraints like that to get quality discussions.

-online student, interview”

Provide scaffolding through protocols, training, experience, and expectations

Assertion: Student control is desirable when perceived outcome is successful

“
Honestly, I didn't really like being the facilitator as I don't like the responsibility of being the mean person who has to keep track of time.

-on-campus student, interview
”

Enhanced Design Propositions

Starting Point



- Reduce instructor overload by having technical support (TAs, tech navigators)
- Create co-presence through mixed groups and visual connections
- Provide scaffolding through protocols

Cycle 1



- **Streamline technology** to reduce instructor overload **and support pedagogy**
- Create co-presence **through visual or physical connections**
- **Create a flexible agenda with adjustable timeframes**
- Provide scaffolding through protocols, **training, experience, and expectations**

Cycle 2

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Cycle 2 Changes



Technological Design Changes

	Iteration 1	Iteration 2	Iteration 3
Tool	WebEx; no breakout groups;	Zoom with breakout groups	Zoom with breakout groups
Video	Room-installed camera with bird's eye view	Individual webcams at each station	All students with laptop camera

Pedagogical Design Changes

	Iteration 1	Iteration 2	Iteration 3
Protocol	Verbal go rounds	Open Discussion	Scaffolded go rounds with clear order
Groupings	No groups	Intentional groupings	Intentional groupings

Cycle 2 Design Propositions



Find the “right” technology to reduce awkwardness/overload and support pedagogy

Assertion: An authentic experience is possible with appropriate technology that mitigates awkwardness of merging environments.

“
I mean it was like being there,
definitely, it worked fine.

-online student, focus group

”

Create co-presence through finer-grained visual or physical connections

Assertion: Finer grain visual is better for co-presence and an authentic experience.

“ It helps that people have their laptops, but we can actually see them now. They don't look like little tiny elves. You can actually see the people, so it works.

-online student, focus group”

Create co-presence **through intentional grouping**, finer-grained visual or physical connections

Assertion: Relationships created through intentional grouping creates co-presence

“
Knowing each other now made it easier to be able to work with each other online.

-on-campus student, focus group

”

Provide scaffolding through protocols with guidance for interaction and role playing

Assertion: Protocols help support discussion but need additional scaffolding

“
Then following the protocol, it was hard to know who was going around, like who, I couldn't see who was going around so it was hard to know

-online student, focus group
”

Enhanced Design Propositions

Starting Point

- Reduce instructor overload by having technical support (TAs, tech navigators)
- Create co-presence through mixed groups and visual connections
- Provide scaffolding through protocols

Cycle 1

- **Streamline technology** to reduce instructor overload **and support pedagogy**
- Create co-presence **through visual or physical connections**
- **Create a flexible agenda with adjustable timeframes**
- Provide scaffolding through protocols, **training, experience, and expectations**

Cycle 2

- **Find the “right” technology** to reduce **awkwardness/** overload and support pedagogy
- Create co-presence through **intentional grouping, finer-grained** visual or physical connections,
- Create a flexible agenda with adjustable timeframes
- Provide scaffolding through protocols **with guidance for interaction and role playing**

Questions



Organizing (5 minutes)

Participants get into groups and brainstorm questions. Then, prioritize questions into top question(s).

Top Questions (2 minutes)

A representative from each group submits top questions on index card to presenter.

Answering (10 minutes)

Presenter(s) answer questions, building connections.

Debrief (Time Permitting)

Participants share experiences using this protocol for conference presentations.

Session Evaluation & Drawing



- Download and open OLC Conferences mobile app
- Navigate to specific session to evaluate
- Select “Evaluate Session” on session details screen (located under session type and track)
- Complete session evaluation*

👍 Evaluate Session

Each session evaluation completed (limited to one per session) = one contest entry

Five (5) \$25 gift cards will be awarded to five (5) individuals
Must submit evals using the OLC Conferences mobile app or website

References

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