Another Piece in the Mosaic@IU:
Active Learning Practices in a Steelcase Verb™ Classroom

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Previous Research

Benefits of active learning methods

- Lecturing vs. active methods (Freeman et al., 2014)
- ALC vs. control group (Baepler, Walker, & Driessen, 2014)

Problems within ALC research

- Large intro science focus (Freeman et al., 2014; Hake, 1998; Prince, 2004; Waldrop, 2011)
- Lack of diversified research (Walker, 2016)
Ballantine 314 – Room of featured research
Purpose

To examine student learning practices in a small general-purpose active learning classroom.

To examine how active learning spaces affect student perceptions of their learning experiences and if those perceptions are influenced by course level or subject matter (Brooks, 2011).
Theoretical Framework

Pedagogy-Space-Technology framework
(Radcliffe, Wilson, Powell, & Tibbetts, 2008)
Methods

Survey Methods

• 19 item Qualtrics survey; 16 Likert-scale items
• Sampling frame: students & faculty in BH314 (2015-2016)
• Sample: students N=96 fall, N=39 spring; N=12 faculty
• Response rate - 30% | 25% | 50%
• Validity and reliability (SME; pilot; definitions)

Setting

• 15 courses in fall; 18 in spring
• Range of topics taught across subjects/course level
Results

Statistically significant differences:

1. **Reconfiguration** of classroom furniture **for purposes of collaboration** \( (M=3.46, SD=1.71) \ t(70)=3.718, \ p=.001 \)

2. The **use of the individual whiteboards** to respond to questions posed by the instructor \( (M=3.15, SD=1.71) \ t(70)=3.574, \ p=.007 \)

3. The ability to **present to the class using available technology** within the room \( (M=3.14, SD=1.93) \ t(70)=3.91, \ p=.002 \)
“The classrooms generally are best suited to smaller class sizes. When the class size exceeds 20 students, the space becomes fairly cramped and much less walkable.”
“The room was over crowded. I would suggest removing a table or two so it is easier to circulate as well as rearrange as needed/desired.”
“The desks that were in the room when I taught were easy to arrange into groups of 4, which facilitated the group work I did frequently really well!”

**Counterpoint** of instructor feedback on room configuration
“I would like to have used the white boards more individually.”

Example of student feedback on individual whiteboard use
“The small individual white boards that could be detached from the wall were great! For small group or even individual breakout activities the students could easily share and collaborate.”

Example of instructor feedback on individual whiteboard use
Qualitative Case Study

Setting
- Intensive 9 wk. summer language course in Arabic
- Enrollment cap of 10; 8 participants

Methods
- Video data gathered daily (Echo360 + wall-mounted camera)
- Coded for technology use, configuration, instructor/student activity and movement (Lee, Arthur, Morrone, 2015)
- Atlas.ti software and second coder utilized
Analysis within Atlas.ti

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Configuration of learning activities reflect **student choice** and instructor direction.

Reader’s Theater - Students remain seated in place to observe
Configuration of learning activities reflects student choice and instructor direction.

“Partner wall” - Directed by instructor with one row rotating
Following an exam, students were asked how they wanted to reconfigure the room.

Note - Individual whiteboards *not* used for partitions (supports survey findings)
This is the configuration the students selected.

Path of least resistance exemplified.
Mobile whiteboards more likely to be used in groups.

Activity with shared board: One person describes room, other draws blueprint.
Competitive group game with one maker per table.

Only allowed to “steal” marker if you roll a six on a dice (mobile phones used)
Instructor use - Only when large whiteboard blocked

Large whiteboard use dominated by instructor to write notes in Arabic.
“I liked the moveable white boards so the students could write their answers while working in groups, instead of working in groups and THEN getting up to write their answer on the board.”

Survey feedback from instructor on use of whiteboards by students
Dynamic group work and active instructional practices extremely high level of co-occurrence

During dynamic group work, instructor actively moved 60% of the time and consulted/monitored students 94% of the time.
Value to “low-tech” active learning pedagogies

Arabic practice via role play: Those seeking apartment speak to landlords
Competitive game of Taboo/Charades/Pictionary

Given a vocabulary word from the instructor, students act out what it is.
Students begin activity by asking/answering questions to nearby peers.

Class bingo with questions and answers (e.g., Do you have a relative that teaches? What does she teach?)
Bingo activity progressing (more movement)

Image of space five minutes into activity.
End state of activity - One big clump.

Take away: Video data can provide overview of movement throughout space
Scholarly Significance Recap

1. Configuration of learning activities reflect student choice and instructor direction.

2. Students select paths of least resistance for reconfiguration.

3. Mobile whiteboards more likely to be used in small group contexts.

4. Mobile whiteboards may lessen need for larger whiteboard use/access.

5. Dynamic group work and active instructional practices, such as consulting and monitoring of student activities, have an extremely high level of co-occurrence.

6. Value to “low-tech” active learning pedagogies in foreign language instruction with ALCs.
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References


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