

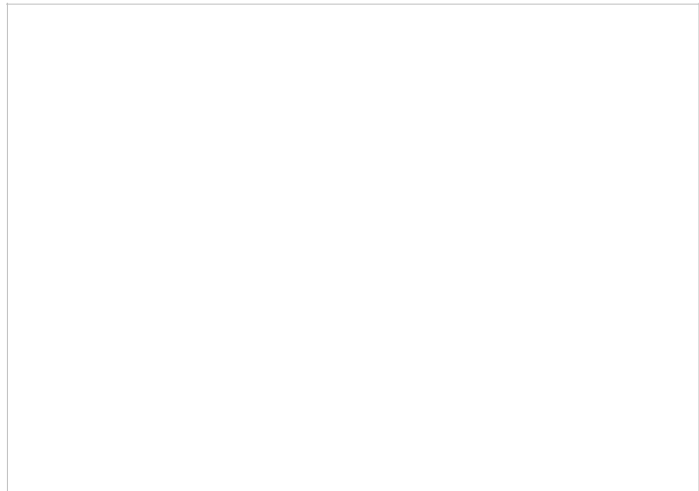
Teaching by Design: Classroom “Hacks” to Support Student Learning

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Before we get started...

Draw or create with the resources provided **a classroom in which you have taught or learned**. Reflect on the following:

- What is good about this space?
- What is challenging about it?
- How might students experience this space? Teachers?
- What does this space convey about what learning is, or how it happens?



Key terms and concepts

Active Learning Classrooms (ALCs): “Classrooms that arrange students around tables, each table with a whiteboard mounted on the wall, and often with the capacity to project the screen of a student’s laptop to the rest of the class” (Baepler et al., 2010, p. 11).

Assumptions about educational environments (Weinstein, 1981):

- “Physical environments impact learning directly and symbolically
- These effects are moderated by other psychological, social, and institutional variables
- Learning environments should match teaching objectives, context (student, institution)
- Learning is optimized when physical environment aligns with pedagogy, curriculum”

Built environment: The sum of all human-made surroundings—from objects to buildings to landscapes—that frame human life and activity.

Built pedagogy: “Architectural embodiments of educational philosophies” (Monahan, 2002).

Classroom climate: “The intellectual, social, emotional, and *physical environments* in which our students learn” (Ambrose et al., 2010, p. 170, emphasis added).

Ecology of participation: How “discussion is varied as a function of location” (Sommer, 1969). For example, you might observe that students in the front of the room speak more often than those at the back of the room.

Hacks: Simple, low- or no-cost actions an instructor can take in service of learning goals. In this session, we discuss three types of hacks:

- Physical (spatial, provision of resources)
- Pedagogical (engaging pedagogical strategies beyond what is suggested by arrangement of the room; see *built pedagogy, above*)
- Social (norm-setting, behavioral changes)

Person-environment relationships: How people and places interact and reciprocally shape and inform each other (c.f., Sommer, 1969).

The physical context of learning refers to “how people are located in buildings, how they are expected to relate to each other in space, and how they move and are expected to use their bodies” (Huse, 1995, p. 290). This includes:

- “the provision, location, and arrangement of furniture, access to resources;”
- “the location of bodies and relationship to each other;”
- “posture; the possibility for movement, physical control, and choice.”

Spotlight on “hacks”

WHY MIGHT YOU USE HACKS?

- Respond to limited availability or utility of resources
- Disrupt or reframe an observed “ecology of participation” (e.g., find ways to engage students at the periphery; bridge distances between instructor/students)
- Use techniques to overcome room’s predominant “built pedagogy” (e.g., promote collaboration or active learning in a lecture hall)
- Use space and resources intentionally and in new ways (e.g., no “front” of the room)

WHAT ARE SOME EXAMPLES OF HACKS?

Physical	<ul style="list-style-type: none"> • Rearrange furniture to enable a certain type of interaction • Rearrange furniture or resources to aid better visibility/utility of resources like chalkboards or projectors • Make use of alternative resources (e.g., chalkboards, individual computers, papers) or post things to walls when desired resources are unavailable/not useful
Pedagogical	<ul style="list-style-type: none"> • Engage pedagogical techniques like polls, think/pair/share, or group activities, even (especially) in spaces not designed for collaborative work • Call on or walk near people at points around the room to engage students in all parts of the classroom • Assign students different roles to evenly distribute participation in room • Move around the room depending on activities/desired interactions • Try new practices based on insights gleaned from built environment lens
Social	<ul style="list-style-type: none"> • Ask students to sit near the front of the room or close together (or in any other configuration to ensure visibility, collaboration, etc.) • Clarify norms about the space (e.g., share your intent behind creating a circle and that it’s ok to “pass”); disrupt norms (e.g., invite students to write on the board) • Acknowledge students’ experiences of space; “decode” it together

Activity #1: Case Studies (Responding to Common Challenges in the Built Environment)

ROADMAP TO THIS EXERCISE

- Select a case study topic by moving to that part of the room and forming small groups
- As a group: read and discuss assigned case study (see additional handout at your table)
- *Think about the both case itself and the value of the activity more broadly*
- Be prepared to report out (1-2 minutes)

Write your notes from the large group discussion and debrief here.

To view additional case studies discussed in this session, either:

- Scan QR code to the right to view PDFs on your phone or tablet
- Access materials uploaded to the POD website: <https://podnetwork.org/2018-conference-session-materials/>



Some additional considerations

THE MYTH OF THE NEUTRAL CLASSROOM

- Teachers and students do not enter an equally 'safe' or 'objective' space inside of our classes.
- All classrooms, in all disciplines, have "complex opportunities, acknowledged or not, to promote or thwart the contributions of students" (Lee et al., 2012, p. 83).

ONE CLASSROOM, MANY EXPERIENCES

"Teacher and [students] may share the same classroom but they see it differently. From a student's eye level, the world is cluttered, disorganized, full of people's shoulders, heads, and body movements," but for a teacher, it appears organized and orderly (Sommer, 2008, p. 132).

NEED TO UNCOVER ASSUMPTIONS ABOUT SPACE

Teachers make assumptions about space. For example, a teacher might arrange chairs into a circle, thinking that "rearranging rows of chairs into circles creates a welcome environment for learning that students appreciate," but students may in fact feel a "censorial gaze" or the "need to speak" (Brookfield, 1995, p. 7, 29-31). This in mind:

- **Reflect:** Use 4 lenses of critical reflective practice: self, peers, students, literature* to identify assumptions and "environment gaps" (Brookfield, 1995).
- **Iterate:** Make changes, tweaks, hacks over time and in response to feedback, experiences, needs (Meyer et al., 2014).

Activity #2: Reflection and Application

REFLECTION 1: [SAMPLE REFLECTION ACTIVITY] WHICH WOULD YOU CHOOSE?

Reflect on the range of solutions your group brainstormed in Activity #1.

- Which would you choose for your own classroom context? Why? (*consider your teaching goals, students' needs, etc.*)
- Are there any hacks you would not use? Why? (*consider: subjectivity, comfort, anticipated challenges*)

REFLECTION 2: APPLICATION TO YOUR CONTEXT

Reflect on the following questions, and record your notes below.

What built environment challenges do you face:

- In your Center?
- Elsewhere on campus (e.g., classrooms)?

How might insights from today inform:

- Your work at the Center?
- Your work with faculty/graduate students?
- Your own teaching practice?

What is one concept or tactic discussed today that you plan to use in your work to support learning, engagement, accessibility, and/or inclusion?

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