

Changing space
Changing practice
Changing culture

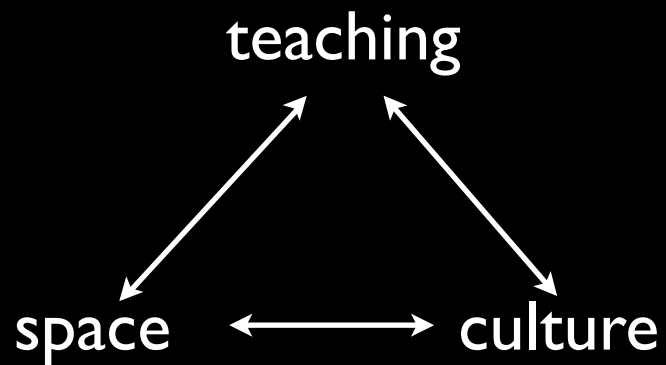
Oliver Dreon, PhD
@ollied
Millersville University

What makes your heart
sing? Why?



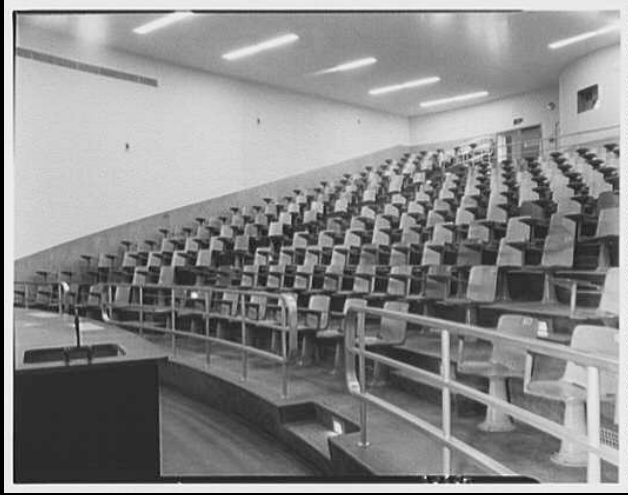
teaching

teaching



“Technology is any modification of the natural world made to fulfill human needs or desires. Although people tend to focus on the most recent technological inventions, technology also includes a myriad of other devices and systems that profoundly affect everyone in a modern society.”

Tech Tally: Approaches to Assessing Technological Literacy
(National Academies Press, 2006)



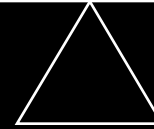
Architecture

Architecture

Learning Sciences

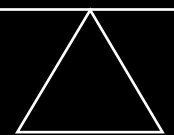
Architecture

Learning Sciences



Architecture

Learning Sciences



Design

affordance

affordance



Whiteside, A., Brooks, D. C., & Walker, J. D. (2010). Making the case for space: Three years of empirical research on learning environments. *Educause Quarterly*, 33(3), 11.

apprenticeship of observation

Lortie, D. C. (1975). *School teacher: A sociological inquiry*. Chicago: University of Chicago Press.



Kollar, I., Pilz, F., & Fischer, F. (2014). Why it is hard to make use of new learning spaces: a script perspective. *Technology, Pedagogy and Education*, 23(1), 7-18.

Kollar, I., Pilz, F., & Fischer, F. (2014). Why it is hard to make use of new learning spaces: a script perspective. *Technology, Pedagogy and Education*, 23(1), 7-18.

Design Principle #1:

Learning spaces should have a migrating focal point.

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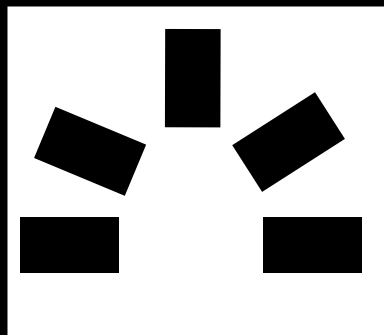
Learning spaces should have a migrating focal point.

power

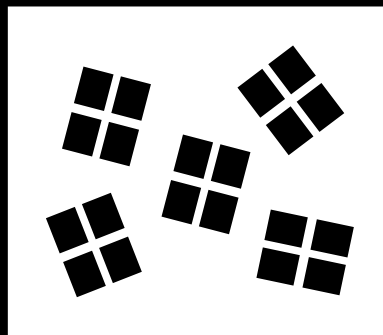
Learning spaces should have a migrating focal point.

power

engagement

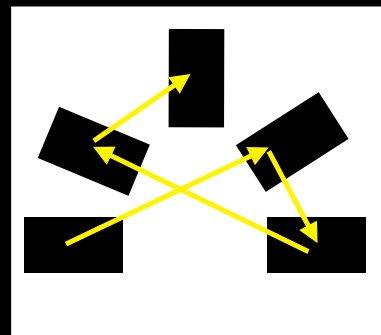


Spoke

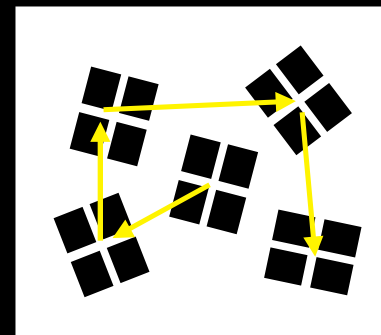


Node

Muthyala, R. S., & Wei, W. (2012). Does space matter? Impact of classroom space on student learning in an organic-first curriculum. *Journal of Chemical Education*, 90(1), 45-50.



Spoke



Node

Muthyala, R. S., & Wei, W. (2012). Does space matter? Impact of classroom space on student learning in an organic-first curriculum. *Journal of Chemical Education*, 90(1), 45-50.

hack (hak) - verb

- to cut, notch, slice, chop or sever something with heavy irregular blows
- to circumvent security and break into
- to modify or repurpose in a skillful or clever way





Smith, C.V. & Cardaciotto, L. (2012). Is active learning like broccoli? Student perceptions of active learning in large lecture classes. *Journal of the Scholarship of Teaching and Learning*, 11(1), 53-61.

Design Principles

Learning spaces should:

Design Principles

Learning spaces should:

#1: Have a migrating focal point.

Hack your space!

Hack your space!

- Shift the attention.

Hack your space!

- Shift the attention.
- Promote multiple voices and sharing of ideas

Hack your space!

- Shift the attention.
- Promote multiple voices and sharing of ideas
- Utilize active/collaborative learning

Hack your space!

- Shift the attention.
- Promote multiple voices and sharing of ideas
- Utilize active/collaborative learning
- Be transparent!

Design Principle #2:

Learning spaces should scaffold authentic practice.

Learning spaces should scaffold authentic practice.

Learning spaces should scaffold authentic practice.

activity

Learning spaces should scaffold authentic practice.

activity

practice



Kollar, I., Pilz, F., & Fischer, F. (2014). Why it is hard to make use of new learning spaces: a script perspective. *Technology, Pedagogy and Education*, 23(1), 7-18.

Kollar, I., Pilz, F., & Fischer, F. (2014). Why it is hard to make use of new learning spaces: a script perspective. *Technology, Pedagogy and Education*, 23(1), 7-18.

Design Principles

Learning spaces should:

#1: Have a migrating focal point.

Design Principles

Learning spaces should:

#1: Have a migrating focal point.

#2: Scaffold authentic practice.

Hack your space!

Hack your space!

- Set up problem based learning activities

Hack your space!

- Set up problem based learning activities
- Break it down.

Hack your space!

- Set up problem based learning activities
- Break it down.
- Balance designed and emergent (Wenger, 1998)

Design Principle #3:

Learning spaces should provide for multiple representations.

Learning spaces should provide for multiple representations.

Learning spaces should
provide for multiple
representations.

process

Learning spaces should
provide for multiple
representations.

process

products

Top 100 Tools for Learning 2015
9th Annual Survey of Learning Tools

Home Guidebook CALPT Blog

2015 Top Tools

- 1 - Twitter
- 2 - YouTube
- 3 - Google Search
- 4 - Google Docs/Drive
- 5 - PowerPoint
- 6 - Dropbox
- 7 - Facebook
- 8 - WordPress
- 9 - Skype
- 10 - Evernote
- 11 - Prezi
- 12 - Wikipedia
- 13 - Pinterest
- 14 - LinkedIn
- 15 - Moodle
- 16 - iPad and Apps
- 17 - Kahoot
- 18 - Blogger
- 19 - PowToon
- 20 - Slideshare
- 21 - WhatsApp
- 22 - Google Chrome & Apps





Design Principles

Learning spaces should:

- #1: Have a migrating focal point.
- #2: Scaffold authentic practice.

Design Principles

Learning spaces should:

- #1: Have a migrating focal point.
- #2: Scaffold authentic practice.
- #3: Support multiple representations.

Hack your space!

Hack your space!

- Create residue

Hack your space!

- Create residue
- Consider BYOD

Hack your space!

- Create residue
- Consider BYOD
- Promote student choice

Hack your space!

- Create residue
- Consider BYOD
- Promote student choice
- Recognize the connection between participation and reification (Wenger, 1998)

Design Principle #4:

Learning spaces should
be task responsive.

Learning spaces should
be task responsive.

Learning spaces should
be task responsive.

evolution

*“We have to be careful not to
focus simply on what the
technology offers, but rather
on what the pedagogy
requires.”*

*Diana Laurillard in Technology, Pedagogy, and
Education (2007)*

Hack your space!

Hack your space!

- Avoid the urge. Use the space.
Don't let the space use you.

Hack your space!

- Avoid the urge. Use the space.
Don't let the space use you.
- Consider pedagogy first!

Hack your space!

- Avoid the urge. Use the space.
Don't let the space use you.
- Consider pedagogy first!
- Communicate with your
students.

Design Principles

Design Principles

Learning spaces should:

Design Principles

Learning spaces should:

#1: Have a migrating focal point.

Design Principles

Learning spaces should:

#1: Have a migrating focal point.

#2: Scaffold authentic practice.

Design Principles

Learning spaces should:

- #1: Have a migrating focal point.
- #2: Scaffold authentic practice.
- #3: Support multiple representations.

Design Principles

Learning spaces should:

- #1: Have a migrating focal point.
- #2: Scaffold authentic practice.
- #3: Support multiple representations.
- #4: Be task responsive.



So, how do we begin?

So, how do we begin?

Start with one!



Stay in touch.

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[@ollied](https://twitter.com/ollied)

