Understanding the Feedback Loop: From Audits to Assessments in Shaping and Reshaping Technology-rich Learning Spaces

PKAL LSC Webinar

October 20, 2010

Joan K. Lippincott

Coalition for Networked Information

A Question for You:

- When you complete your building or renovation project, will you have accomplished what you set out to do?
- How do you know what is needed?
- How can you assess what you have accomplished?

New campus - American U. of Cairo

Have you improved lighting, HVAC, technology, ambience?

The Link at Duke U.

Have you improved learning?

Group study room at Marriott Library, U. Utah

The Feedback Loop

- Plan assessment from the beginning of your project
  - *Include audits and/or needs assessment as part of the assessment plan*
- Align assessment with project goals
- Operationalize your goals
- Collect the baseline data you may need

The Feedback Loop

- Institute changes in support of goals
- Implement the building project
- Assess your success in meeting goals
- Implement needed changes

Focus on assessment of goals linked to institution's learning priorities

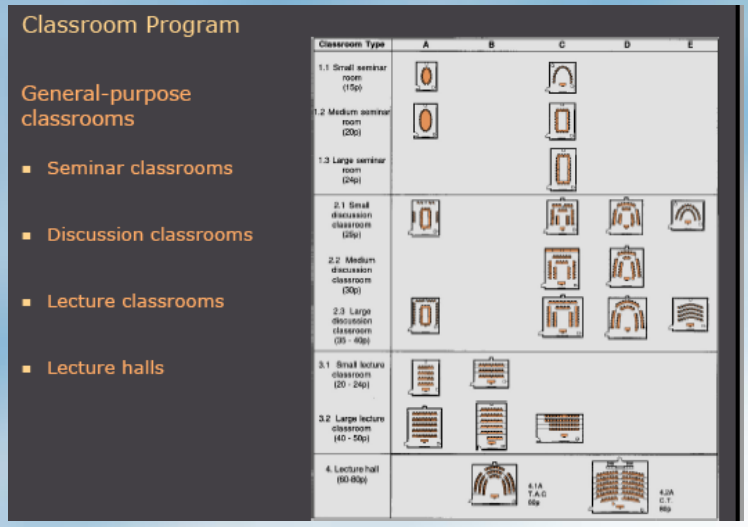
- Undergraduate research
- Student engagement
- Critical thinking skills
- New literacies
- Learning communities
- Community involvement
- Retention
  - *Support for under-prepared students*
  - *Development of sense of community*

Assessment is Resource-Intensive

- **Put resources into assessment that will matter**
  - ***Identify the purpose and audience(s) for assessment activities***
  - ***Consider the types of information (data) and reports that might have the most meaning and impact***
  - ***Work with assessment experts***

Collect Baseline Data - Audit

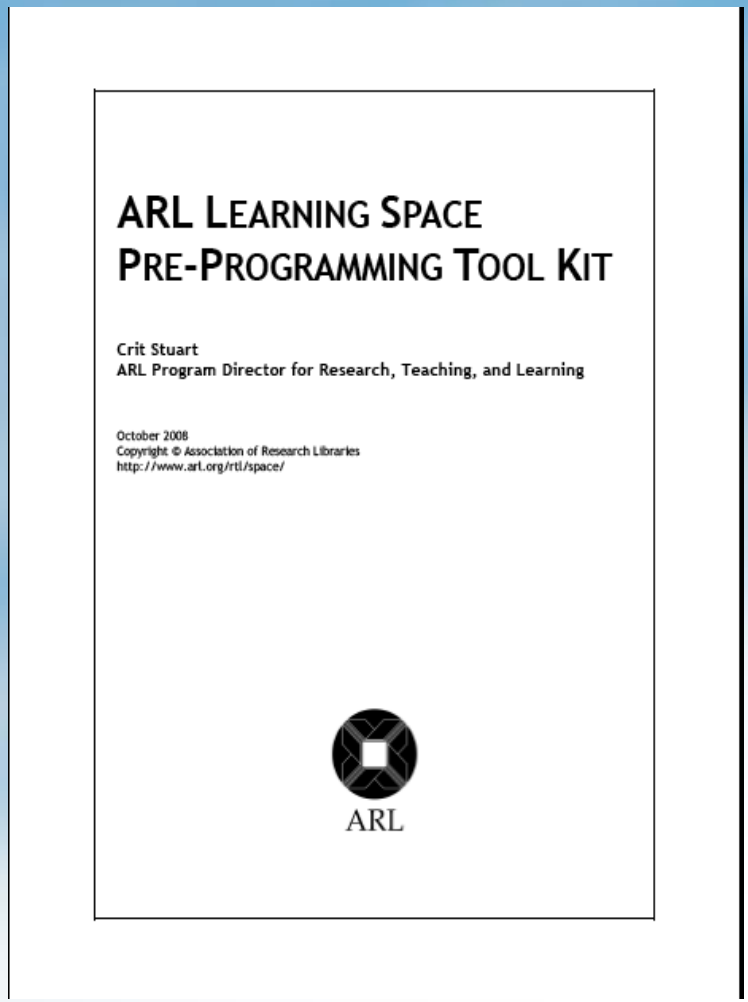
- **Audit of spaces**
  - ***What is current size, configuration & utilization of teaching and learning spaces***
  - ***What types of spaces do faculty and students need for teaching and learning***
  - ***Can we develop classroom design guidelines for buildings or departments***



Ellenzweig Assoc. "The Vassar Story"
http://www.pkal.org/documents/TheVassarStory.cfm

Collect Baseline Data - Needs Assessment

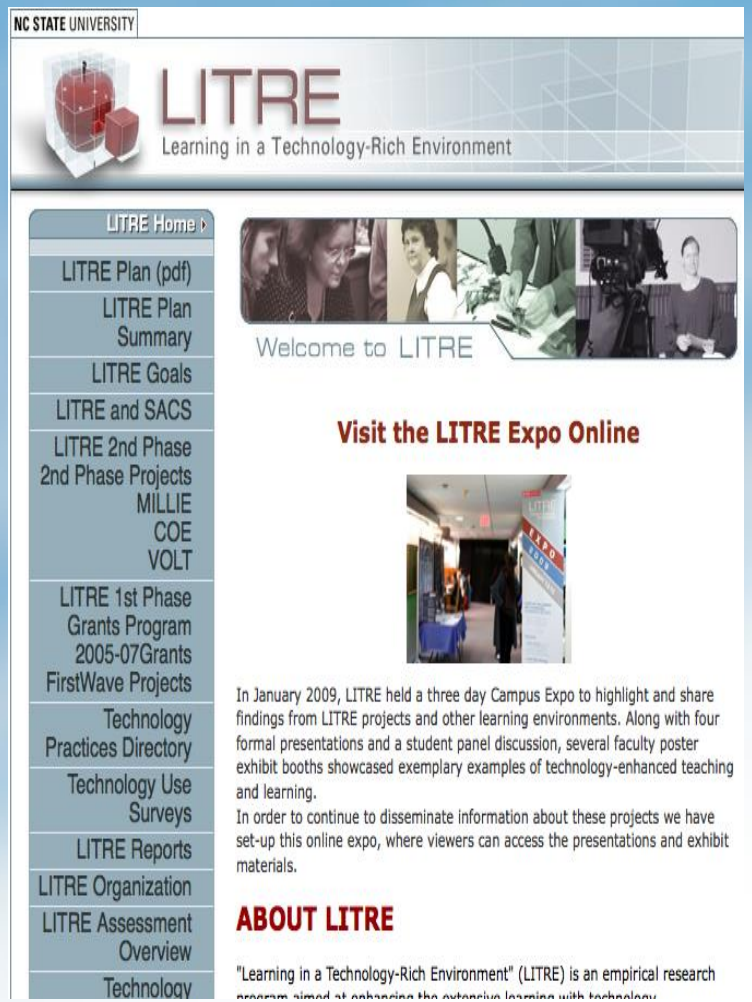
- **Understand community needs**
  - ***Faculty, staff, students, neighbors***
  - ***Encourage genuine engagement with community to understand needs***
  - ***Look at behavior, not just numbers***



http://www.arl.org/rtl/space/index.shtml

Institute changes that will inform your ability to enable faculty and students to get the most out of new spaces

- An assessment program at NCSU
- Goal: Improve student learning
- Investigate technology-based innovation
- Develop appropriate policies
- Improve the physical learning environment



http://litre.ncsu.edu/

Assist faculty in understanding the role of technology and the role of your space: Workshop at UPenn Weigle Info Commons

Engaging Students Through Technology 2010

Third Annual Symposium SHARE

Friday, October 15, 2010, 10:30 am to 3 pm

We live today in a state of 'continuous partial attention'. Instant access to people and information can both engage and distract us. New tools break down classroom boundaries and change the nature of college education. This year's symposium explores the creative ways faculty are integrating technologies into teaching, the challenges they face, and the disruptive nature of mobile technologies in lecture contexts. The day's program will include faculty presentations, hands-on exploration and small-group discussions. The symposium was open to Penn faculty and instructors. Videos, presentation materials and photos will be posted shortly.

10:30 am to Noon	Noon to 1 pm	1 to 2 pm	2 to 3 pm
Faculty Panel Cohen Hall Rm 402	**Informal lunch with presenters** WIC Data Diner Van Pelt Dietrich Library Center	**Student Panel and Tech Explorations** Concurrent sessions Van Pelt Dietrich Library Center	**Disc. Group and Tech Explorations** Concurrent sessions Van Pelt Dietrich Library Center

Faculty Panel - 10:30 am to Noon

Six ten-minute presentations on how and why a particular technology works with each person's teaching goals:

Regina Austin Student Created Videos

Andrew Lamas Visual Expression

Carol Muller Interactive Music Histories

Kris Rabberman Online Collaboration

Ralph Rosen Facebook

Mark Yim Disruptive Technologie

http://wic.library.upenn.edu/wicshops/pennedutech2010.html

How Do You Create a Measurable Goal for Your Project?

- Critically examine the goals you have developed for your project
- Articulate a use case that would demonstrate what you are trying to accomplish in your project
- Restate the goal incorporating outcomes

Refining Goals

- Stated goal: Develop spaces for interactive, collaborative learning.
- Restated goal: Develop technology-rich spaces for collaborative learning to provide an environment that encourages the social aspects of learning and enhances engagement in the learning process.

Assessing the Implementation

- **Study of Intro Astronomy classes**
  - ***Nationwide: 4000 students; 31 instructors***
- **How does instructional style in Intro Astronomy affect student learning?**
- **Single most important variable in explaining gain in learning was *interactivity***
  - ***Clickers: think/pair/share***
  - ***Group work***
  - Teaching and learning astronomy in the 21st century, *Prather, E. E., Rudolph, A.L., & Brissenden, G.,* Physics Today*, 62(10), 41-47*

Implications for space: availability of clickers; capability of forming small groups for part of class time

Are You Accomplishing Your Goals? Some Questions to Consider

Stata Center - MIT

Does an active learning classroom help retain majors in Biology?

UNIVERSITY OF MINNESOTA
Driven to Discover℠

myU | One Stop | Directories | Search U of M

Search OIT

OFFICE OF INFORMATION TECHNOLOGY

Contact:
dmc@umn.edu

212 Walter Library
117 Pleasant Street S.E.
Minneapolis, MN 55455
(612) 625-8030

69 McNeal Hall
1985 Buford Avenue
St. Paul, MN 55108
(612) 625-8030

Active Learning (Flexible) Classrooms: An Innovative Partnership Project

By Deborah Alexander and Aimee Whiteside

Net-savvy students today arrive in college classrooms with much higher expectations of educational technology. They want to be constantly connected, and expect ubiquitous access to wireless and plug-and-play technology wherever they go on campus.

In light of these changes, the Office of Classroom Management (OCM) has partnered with the Office of Information Technology (OIT) to pilot two flexible learning spaces on the Twin Cities campus, Biological Sciences Center 64 in St. Paul and Electrical Engineering/Computer Science 2-260 in Minneapolis. These student-centered classrooms feature multiple display screens, document cameras, 360-degree glass marker boards, dual projectors, and round tables with laptop plug-ins for every three students.

Cognitive theory indicates that students are better able to actively process information when sensory stimulation, information exchange, rehearsal, feedback, and application opportunities are available. Flexible classroom spaces are thus designed to

Read our Exemplary Projects article, "Live-wired, Flexible Classrooms Energize Teaching and Learning," about how Maria Gini and Jennifer Gunn are teaching in the Minneapolis active learning classroom.

Campus Resources

The following campus services and sources may help you further explore how to design and teach in active learning classrooms:

CONSULTATIONS

Meet with a DMC consultant. See our Planning and Design and Evaluation and Assessment pages.

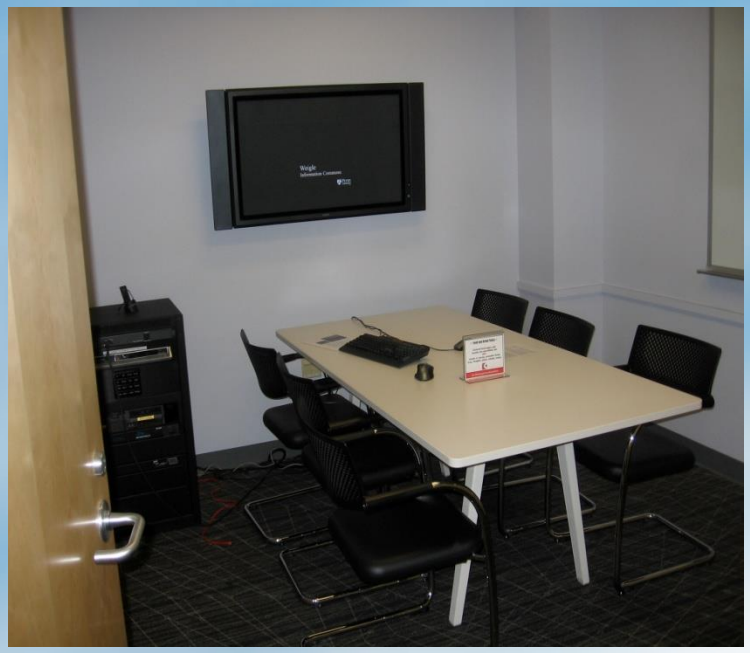
http://dmc.umn.edu/spotlight/active-classrooms.shtml

Are students able to effectively collaborate on projects in the space?

Learning Commons - Georgia Tech

Are you accomplishing your goal?

- Are marketing or education or communications students doing better presentations now?
- Aligning spaces and services



UPenn Weigle Info Commons

Are you accomplishing your goal?

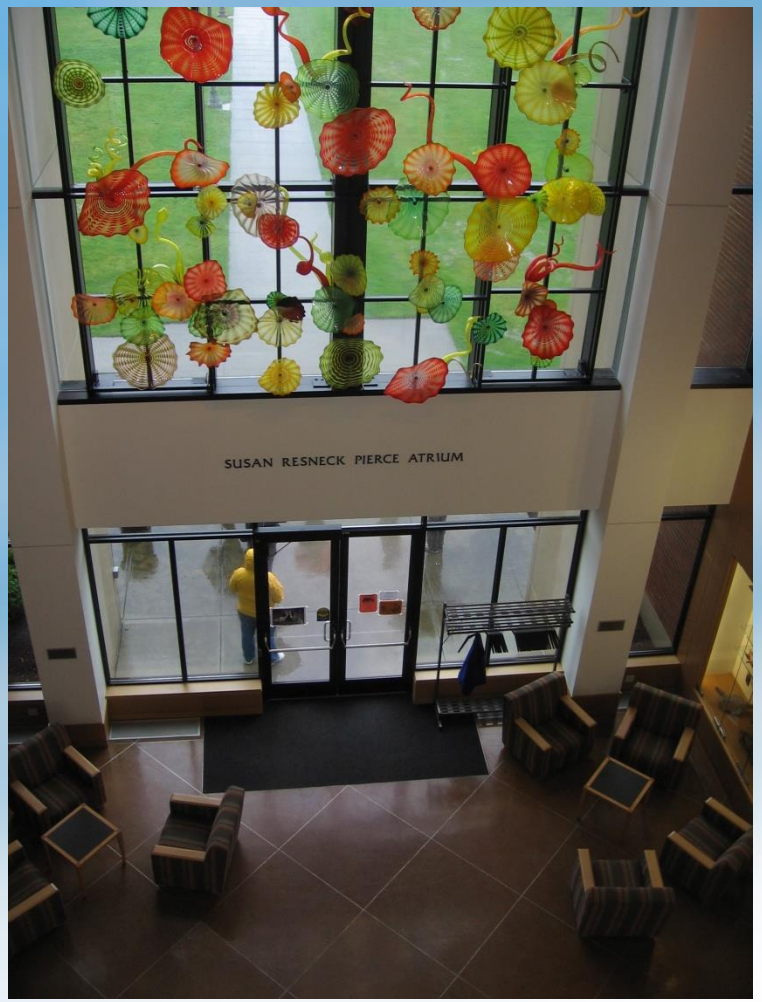
- **Are International Relations and/or foreign language students able to do more in depth, current, engaging work here?**

News Center - Dartmouth College Library

Are you accomplishing your goal?

- Do commuter students feel a stronger sense of belonging because of the availability of these spaces?
- Café - U. Colorado, Boulder Info Commons
- Gaming station - NC State Learning Commons

Does artwork by a famous alum enhance student pride in the institution?



Dale Chihuly Glass Sculpture - Classroom Building

U. Puget Sound

How to assess learning spaces

- Data collection
- Analysis of student work
- User surveys
- Observation/Photos
- Focus groups
- Case studies
- Interviews

Assessment - An Ongoing Process

- Faculty and student needs change
- Turnover in faculty could result in vastly difference pedagogical styles
- Technology changes
- Ongoing refinements should be based on data

Assessment Resources

- **Use available outside resources**
  - Project Kaleidoscope (PKAL)
  - www.pkal.org
  - *EDUCAUSE Learning Space Design Website: http://www.educause.edu/LearningSpace/5521*
  - ARL LibQUAL+ ™ program
  - www.libqual.org
  - ***TLT Flashlight Project*** http://www.tltgroup.org
  - Lippincott, Joan K. "Learning Spaces: Involving
  - Faculty to Improve Pedagogy." EDUCAUSE Review
  - Vol. 44, 2009 http://www.educause.edu

Thank you!

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The Link - Duke University