



McGill

# Active Learning Classrooms at McGill

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TLS

# Stewardship of Teaching and Learning Spaces at McGill ('05)



## Teaching and Learning Spaces Working Group

### *Mandate*

- A vision for teaching and learning space development
- Standards based on sound pedagogical and technical principles.
- Steward funding for classroom renovations and IT (2M/yr)

### *Representation*

- All Faculties, relevant service units, students: 30+ members
- Transparent, collegial process

# How we got to Active Learning Classrooms



## Three phases of teaching and learning space development

1. Refocusing classroom design (05-06)
2. Low risk, incremental change (06-08)
3. Informed risk, transformative change (08-10)

# Teaching centered

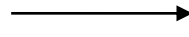


# Learning centered



## Content

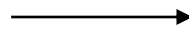
What do I want to teach? How can I cover the content?



What do the students need to learn? How can I help the students reach the learning goals?

## Teacher

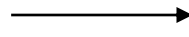
Transfer knowledge to students



Facilitates student's construction of knowledge

## Learner

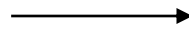
Receives information



Actively engaged

## Strategies

Based on content delivery  
Emphasis on information transmission



Based on desired learning  
Emphasis on active practice, collaboration and feedback

## Evaluation

Emphasize summative grading



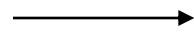
Emphasize continuous formative Feedback

# TEACHING APPROACH

Teaching centered → Learning centered

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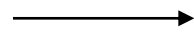
**Surface**



**Deep**

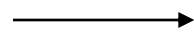
**LEARNING APPROACH**

Intention to reproduce content



Search for understanding

Receive information passively



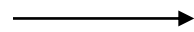
Interact critically with content

Learn course content for exam

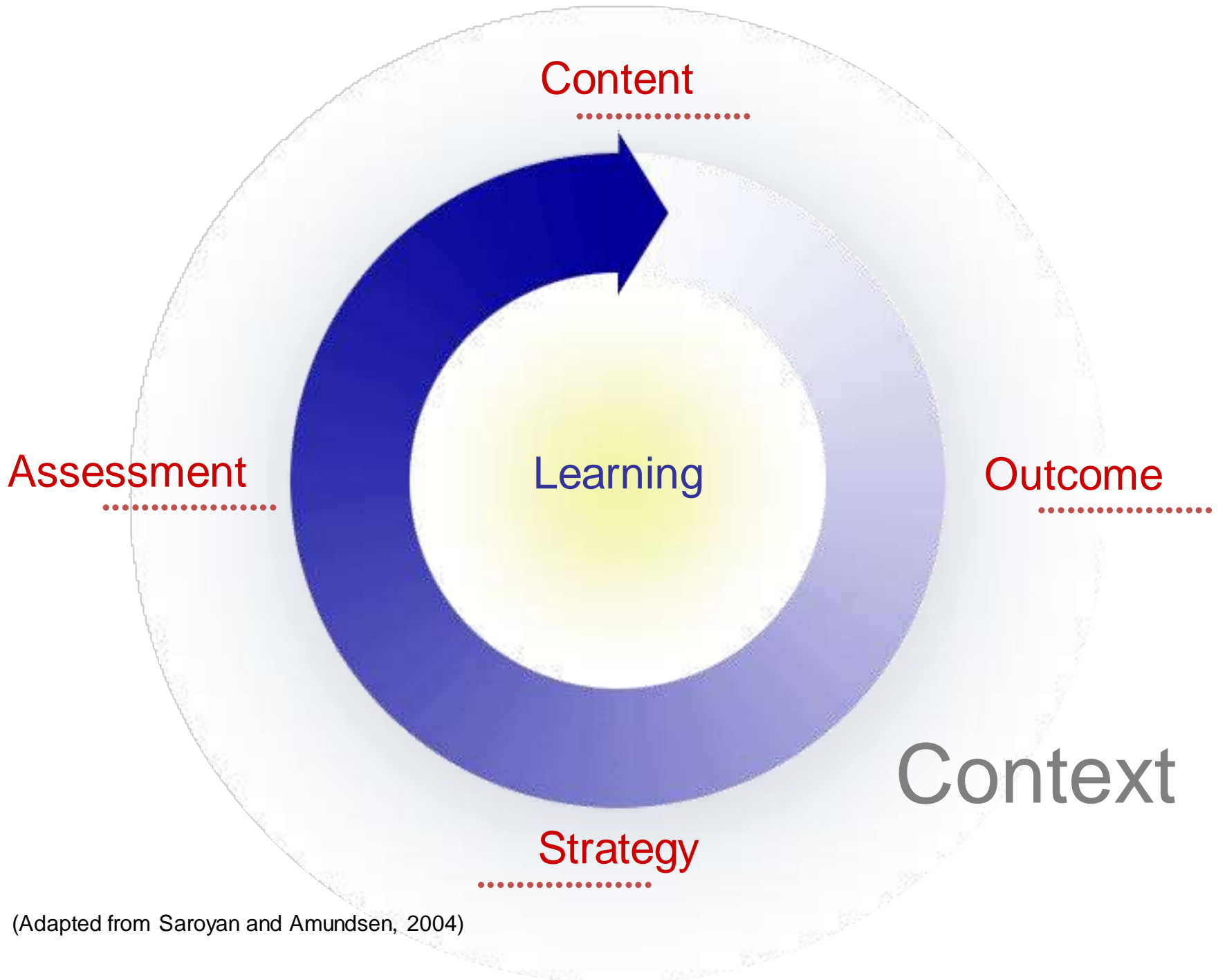


Link course content to previous experience

Short term retention



Long term retention



(Adapted from Saroyan and Amundsen, 2004)



## National Survey of Student Engagement

	<i>Class</i>
<b>Level of Academic Challenge (LAC)</b>	
<i>How challenging is your institution's intellectual and creative work?</i>	First-Year Senior
<b>Active and Collaborative Learning (ACL)</b>	
<i>Are your students actively involved in their learning, individually and working with others?</i>	First-Year Senior
<b>Student-Faculty Interaction (SFI)</b>	
<i>Do your students work with faculty members inside and outside the classroom?</i>	First-Year Senior
<b>Enriching Educational Experiences (EEE)</b>	
<i>Do your students take advantage of complementary learning opportunities?</i>	First-Year Senior
<b>Supportive Campus Environment (SCE)</b>	
<i>Do your students feel the institution is committed to their success?</i>	First-Year Senior

# Research-informed classroom design





# What are Active Learning Classrooms (ALCs)?



- Range of classrooms
- Designed with intent:
  - Promote active and collaborative learning
  - Increase student-faculty interaction
  - Enrich educational experiences
  - Provide a supportive campus environment
- Created 3 ALCs: Lower Campus, Upper Campus, Rural Campus

Principle	What is the goal?	Design features

Principle	What is the goal?	Design features
Active and Collaborative Learning	Promote interaction w/content  Promote collaboration	Adequate work surfaces Access to resources (Net)  Writable Walls Screen Sharing Laptop/desktop access
Student Faculty Interaction	Diminish barriers  Promote contact  Promote communication	Room Layout Central Podium Smaller Podium Mobility and access  Room interface Multiple sources, multiple screens Screen Sharing Acoustics
Enrich Educational Experiences	Support flexibility and multiple modes of learning	Furniture, work surfaces, lighting & shades
Supportive Campus Environment	Ensure livability Promote sustainability	Ventilation, Temperature, Storage Total life cycle, adaptable to future

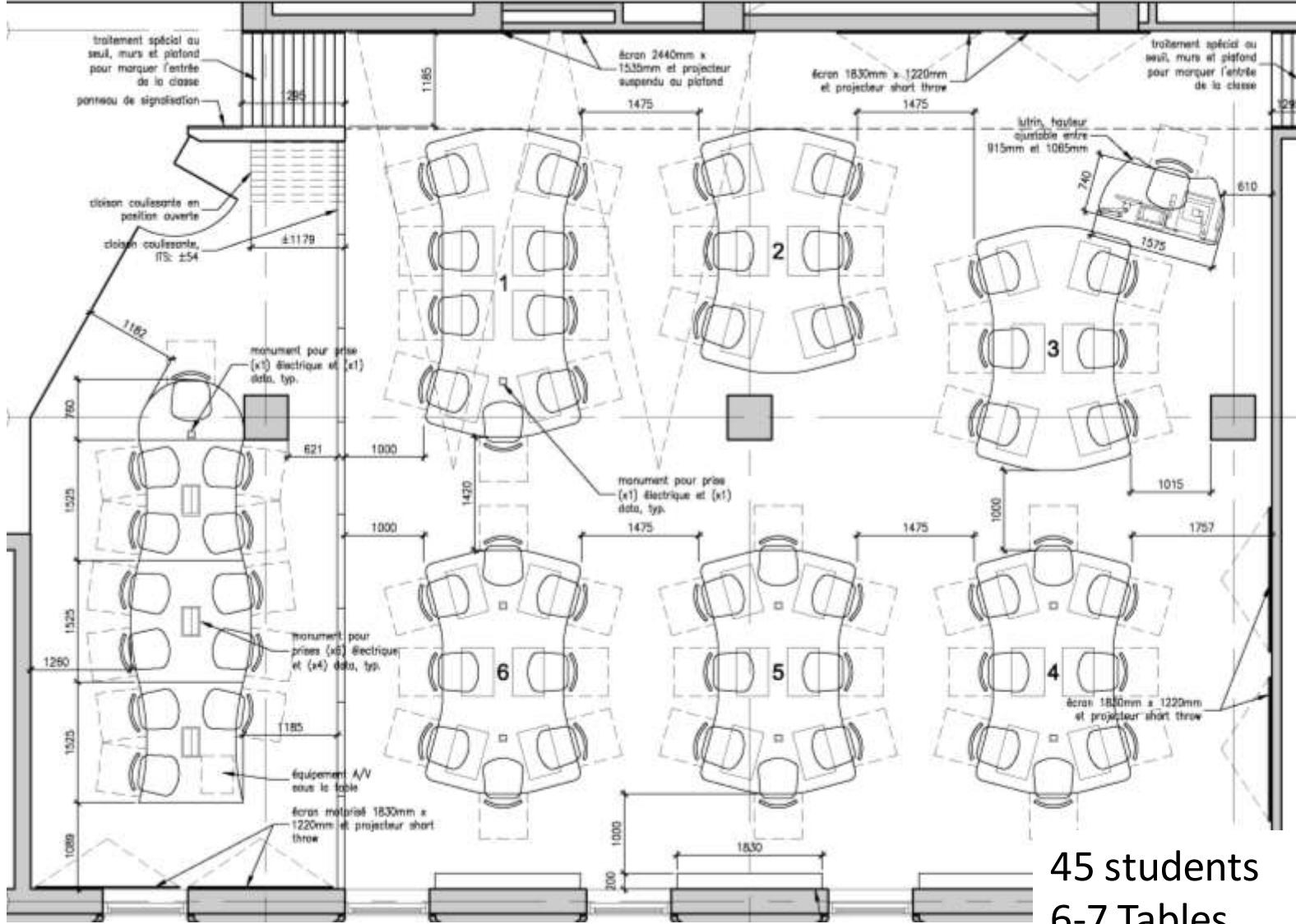


## Lower Campus ALC – BEFORE



## Lower Campus ALC – AFTER





PROPOSITION A  
salle 511a:  
-5 groupes de 6 chaises,  
de 8 chaises, 7 chaises \*  
pour ordinateurs portables  
de 45 étudiants  
-1 podium  
salle 511b:  
-12 chaises pour ordinate  
portables



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**Lower Campus ALC – Layout**

- 45 students
- 6-7 Tables
- 6-8 students/table
- 6 PC, 0-2 laptop / table
- Software sharing

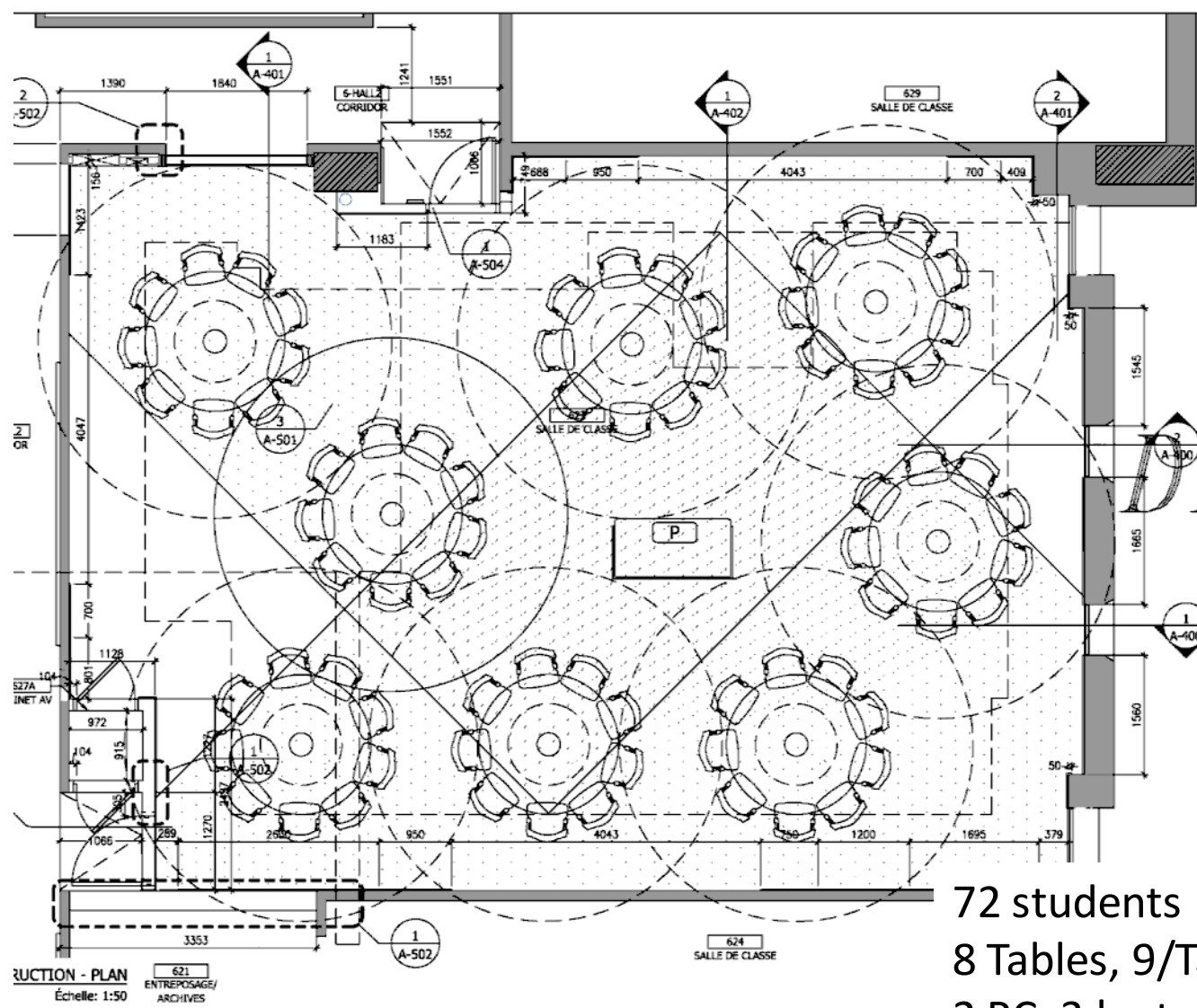


## Upper Campus ALC – BEFORE



## Upper Campus ALC – AFTER





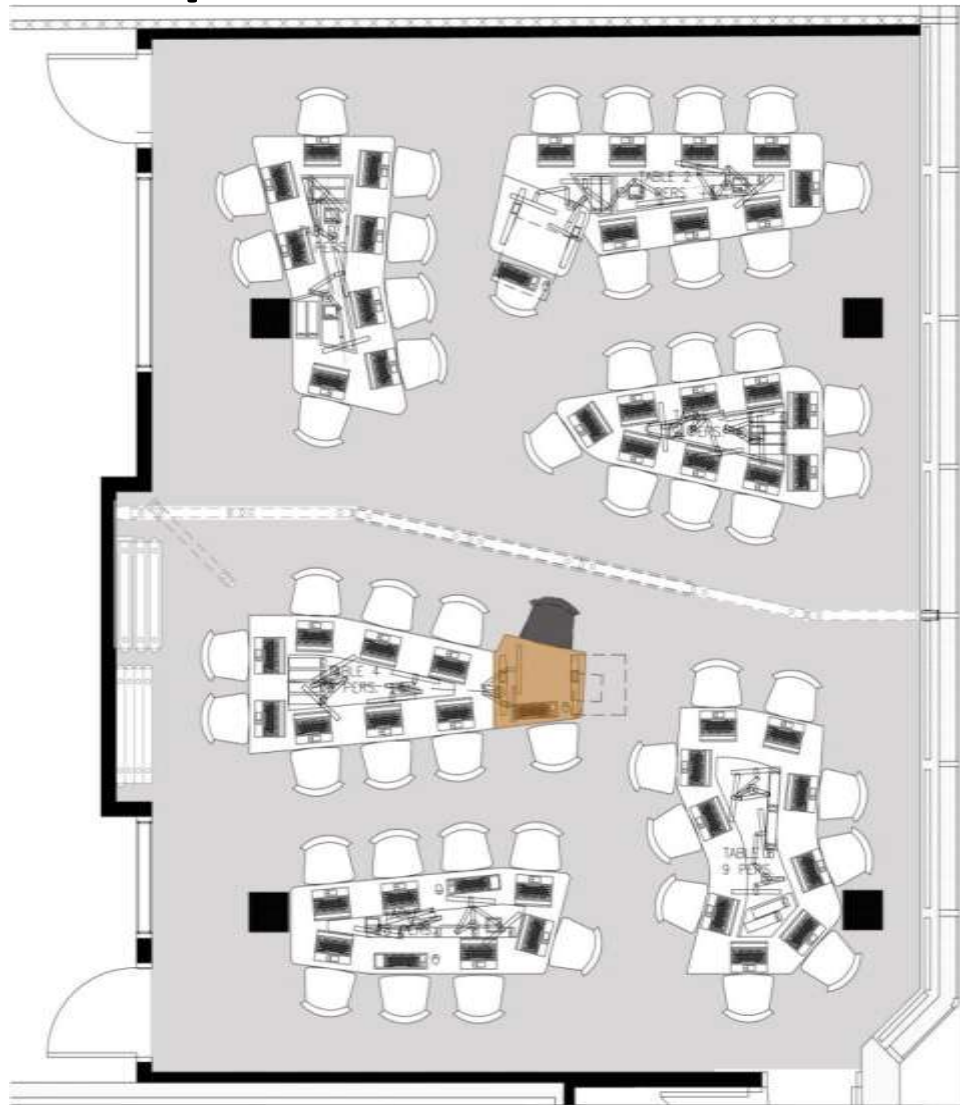
## Upper Campus ALC – Layout

72 students  
 8 Tables, 9/Table  
 2 PC, 3 laptop / table  
 Hardware/Software sharing



## Rural Campus ALC – BEFORE

# Rural Campus ALC – One room



52 students





## Rural Campus ALC

# Comprehensive Support



	Proactive (anticipating needs)	Reactive (responding to requests)	
		Scheduled	----- Immediate
Before/After Teaching	<ul style="list-style-type: none"> <li>•Group Meetings</li> <li>•Room orientations (instructors)</li> <li>•Listserv</li> <li>•Resources (links, articles)</li> </ul>	<ul style="list-style-type: none"> <li>•Consultations</li> <li>•Practice in room</li> </ul>	<ul style="list-style-type: none"> <li>•Email/phone support</li> </ul>
During Teaching	<ul style="list-style-type: none"> <li>•Room orientations (students)</li> <li>•Job aids</li> </ul>	<ul style="list-style-type: none"> <li>•Observations</li> </ul>	<ul style="list-style-type: none"> <li>•In-room tech support</li> <li>•Emergency phone support</li> </ul>

# Impact



## Institutional level

- All stakeholders using language of active learning
- Principles are transforming the institutional vision of teaching and learning spaces
- More requests to teach than can be accommodated (now 7 faculties)

## Faculty/departmental level

- New access point for teaching and learning
- Funding criteria influencing value placed on active and collaborative learning

# Impact



## Usage

- 2009-2010 – 7 Faculties, 40 courses, 34 instructors and 1,300 students in 2 ALCs
- 2010-2011 – 8 Faculties, 76 courses, 50 instructors and more than 2,600 students in 3 ALCs

## Instructors and students in an ALC

- Active Learning Classroom magnetism
- “The space does not make us learn better; it’s the teaching methods that really makes the difference.”

## Perceived impact on engagement and learning (Instructors)

Strongly  
agree/Agree  
(n=13/19)

1. The classroom encourages interaction between students and instructors.

100%

2. The classroom encourages student collaboration.

100%

3. The room facilitates student active participation and engagement in classroom activities.

100%

4. The room has a positive impact on student learning.

100%



# Perceived Impact on engagement and learning (Students)

Strongly  
agree/Agree  
(n=461/866)

1. The classroom encourages interaction between students and instructors.	91.1%
2. The classroom encourages student collaboration.	93.5%
3. The room facilitates student active participation and engagement in classroom activities.	91.9%
4. The room has a positive impact on student learning.	91.7%

# Thank you!



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