Ctrl+ALT or Delete: Investments in Active Learning with Technology

Marylou Holly – Associate Registrar
Tim Murphy – Director, Classroom and Lab Technologies
John Prette – IT Project Manager
Warm-up: What does the “ALT” stand for in ALT Classroom?

- Active Learning Technology: 38
- Academics Leveraging Technologies: 3
- Alternate: 2
- Altitude: 1
ALT Classroom on Mason’s campus

http://vimeo.com/90594960
Welcome to Ctrl + ALT or Delete

- Warm-ups – Welcome and who we are
- Test your knowledge of Active Learning
- Why ALT at Mason – Registrar’s perspective
- What it costs
- What we heard from our faculty and students
- Conclusions and Questions
Who we are

- **Tim Murphy**, Director Classroom and Lab Technologies (CaLT)
  - Oversees the team that designs, builds, and supports the rooms; identifies features and technologies

- **Marylou Holly**, Associate Registrar
  - Focused on room scheduling – getting the right rooms for each course

- **John Prette**, IT Project Manager
  - Helps keep things on schedule through the builds
Test Your Knowledge of Active Learning
Pre-test: Which of these is an ALT Classroom?

Total Results: 46
Passive Teaching Model

- Defined front & back of room
- Lecture format, all face forward
- Very little physical activity
- Participation between teacher & student
- Teacher teaches, student “learns”
- Very little group work
- Reference-based testing
- Teaching-centric
Active Teaching Model

- No defined front or back of room
- Instructor is not central to the classroom
- Group work predominant
- Lectern is not central
- Round tables
- Whiteboards
Examples of Active Learning

- Flipped classroom
- Dynamic learning
- Collaborative
- Active
- SCALE-UP
- TEAL
- Flexible
- Non-traditional
- Student-centered

"Active Learning" is, in short, anything that students do in a classroom other than merely passively listening to an instructor's lecture.

http://web.calstatela.edu/dept/chem/chem2/Active/
Who Are Our Students? – The Millennials

- 75 million people - 36% of total population
- Almost as large but far more diverse than the Baby Boom generation (31% identify themselves as minority)
- Technology natives/ never knew a time without computers
- Their communication and technology use habits are independent of the device
- They consider technology to be mobile
- Time shifting their interactions with information and communication
“Continuous Partial Attention"

- Expect communication exchanges to be collaborative and participative
- Expect the ability to customize their technology environment
- Want and expect 24/7 services
- Want integration between tools—very little time to waste

Don’t want to JUST be consumers of information — want to create and share information
Higher education is now learning what businesses knew all along

- Harder to find a new customer than to keep the current ones happy
- Money is tight & getting tighter
- Students are different now
- Much more public scrutiny on graduation rates
- Higher demands on education to produce results
What percentage of your classrooms would you consider ALT?

- None: 8
- <5%: 31
- 5% – 25%: 14
- 26% – 50%
- >50%

Total Results: 53

Mason falls within the <5% range currently.
Why ALT at Mason?
George Mason University

- Located in Northern Virginia
  - 30 minutes from Washington, DC
  - Multiple Campuses
- 33,917 Students
  - Largest public university in VA
  - 21,990 Undergraduate Students
  - 11,399 Graduate Students
- # of classes taught in a university classroom:
  - Fall 2013: 5,950
  - Spring 2014: 5,620
  - Summer 2014: 1,170
Mason’s Campuses

- Fairfax: 157 Classrooms
- Arlington: 38 Classrooms
- Prince William: 16 Classrooms
- Additional Instructional Sites
Excerpts from Mason’s Vision

Innovation is Our Tradition

We strive to find new and better ways to deliver on our mission while honoring time-tested academic values.

One of Our Commitments:

Learning Innovation: We will apply new and emerging learning technologies, environments, and methods to improve learning effectiveness and student completion, and to better serve the evolving needs of students, working professionals, and public, private and nonprofit organizations.

Approved March 20, 2013

http://vision.gmu.edu/the-mason-vision/our-goal/#mission
Role of the University Registrar

The Registrar’s staff play a strategic role at an institution primarily because of access to vast amounts of data that are needed to drive strategic enrollment management (SEM) efforts.

The Council for the Advancement of Standards in Higher Education Self-Assessment Guide for Registrar Programs and Services includes a statement on the role of the Registrar:

“The overarching role of the registrar is increasingly that of an educator, defining student needs through learning outcomes and identifying assessment strategies that involve innovative learning techniques including those provided through distance education.”
Classroom Demand

Classroom utilization needs to increase by 10% in FY2016 to accommodate demand. Future targets are based on the university reaching its initial targets.
Most Requested Technology

- Instructor Computer and Projector: 60.1%
- Document Camera: 14.6%
- TV and DVD: 12.0%
- Student Computers: 10.8%
- Video Conferencing: 0.4%
- Video Recording: 1.0%
- Active Learning Technology: 1%
Additional Feature Requests

- Extra White Boards: 42.4%
- Moveable Seating: 37.1%
- Seminar Seating: 9.3%
- Tiered Floor: 6.6%
- U-Shaped Seating: 4.6%
What do Mason Professors want?

1. Instructor computer and projector

2. Moveable Seating

3. Extra White Boards
Mason’s ALT Classroom Flagship

- **72-seats** – 8 round tables of 9 seats each
- **9 computer connections** – each table has separate projection capabilities
- **Central instructor station** – the instructor station with master controls located in center of the classroom.
- **360° of whiteboards** – walls are covered in white board paint
Who is using the ALT classrooms?

- Science: 38%
- Humanities and Social Sciences: 22%
- Policy, Government, and International Affairs: 10%
- Business: 15%
- Engineering: 3%
- Education and Human Development: 5%
- Health and Human Services: 2%
- Conflict Analysis and Resolution: 2%
- Visual and Performing Arts: 3%

Total: 100%
What is your institution’s commitment to Active Learning?

- None at all: 6
- Some specific departments, not institution-wide: 15
- A few campus experiments but no clear strategic path: 24
- A clear mission statement to HEAD in this direction: 15
- A clear mission statement to CONVERT all spaces to ALT: 2

Total Results: 62
What does an ALT classroom cost?
Continuum Costs

Physical Room Attributes

Nothing

Technology Attributes

Nothing

Nothing

Everything

Everything
Continuum Costs

**Physical Room Attributes**

- Tables
- Chairs
- Whiteboards

- **36 seat**
  - $12-$15K

- **Space**
- **Height**
- **Furniture**
- **Milk glass**

- **36 seat**
  - $20K-$50K
Continuum Costs

Technology Attributes

Nothing

72 seat $12-$15K

Everything

72 seat $70K - $500K
Continuum Costs* – Mason Rooms

Nothing  $0  $25K  $60K  $75K  $300K  Everything

*Technology Attributes Costs
Continuum Costs* – Mason Rooms

Traditional Classroom – Passive Learning Model

*Technology Attributes Costs
Continuum Costs* – Mason Rooms

- Nothing
- $0
- $25K
- $25K – Flexible seating, additional whiteboards
- $300K
- Everything

*Technology Attributes Costs
Continuum Costs* – Mason Rooms

Absolutely Nothing

$0

Absolutely Everything

$25K

$60K – Multiple LCD, more flexible furniture

$300K

*Technology Attributes Costs
## Continuum Costs* – Mason Rooms

<table>
<thead>
<tr>
<th>Costs</th>
<th>Description</th>
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<tr>
<td>$25K</td>
<td>Technology Attributes</td>
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<tr>
<td>$75K</td>
<td>Larger room, multi-projection</td>
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*Technology Attributes Costs
Continuum Costs* – Mason Rooms

$0

$25K

$300K

Nothing

Everything

36

$300K – Flagship room

*Technology Attributes Costs
What did we hear from our faculty and students?
What are your faculty and students saying about ALT classrooms?

- Awesome! Fantastic! Cannot live without! 6
- Crucial to learning, but a lot of work 13
- Works for some curriculum, not... 24
- No real impact on teaching or learning 2
- Meh 1

Total Results: 46
Survey Results – Surprises!

- Students refused to use technology (possibly visibility); they never did warm up to the tech
- Some students really didn't connect with the faculty; instructor anticipated being more connected with the students
- Table conversations between students were instant and remained through class
- Student groups formed bonds immediately and bonds remained
Survey Results – Surprises!

- Instructors requested tablets or the capability to capture the students work specifically for math and chemistry (took pictures to capture)
- Tables too crowded for exams (exams in the future will need to be figured out)
- Students loved whiteboards
- Students didn't want to display their own laptops
Survey Results – Technology

- Handheld mics were good to gain students attention
- One instructor didn't use the Sympodium at all (wasn't aware how to use it, unaware how to project)
- Room displays used quite frequently (more than screen)
- Room displays helped with seeing the Internet; small writing
Survey Results – Technology

- Whiteboard paint (white) was very bright, glare was distracting, turned light down frequently
- Location of the instructor desk (difficult to present, backs to student)
- Sympodium is large and needs to have the ability to be put down (prefers using it as a tablet)
So What Did We Learn?

- Price/Value Relationship
- Whiteboards & Round Tables are the center points
- A lot can be achieved with a little
- Collaboration is key to success
  - Registrar
  - Planning
  - Tech Support
  - Faculty Support
- Faculty Support = key component
Critical points

- Standards are key to scalability
- Shape & position don't matter
- Learn from your mistakes
- Share your successes
- You can’t please everybody
- Registrar needs a mix
- Control your growth
- Find your price/value point
- Maximize our flexibility
What does the Future Hold?

Video Removed
QUESTIONS?

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Help Us Improve and Grow

Thank you for participating in today’s session.

We’re very interested in your feedback. Please take a minute to fill out the session evaluation found within the conference mobile app, or the online agenda.