Principles and standards for modern learning space design

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Formerly: Educational Development Unit, Murdoch University
Context

• Chair of Learning and Teaching Venues Committee

• Tasked with
  – Developing standards for the design of, and facilities in, existing and new learning and teaching venues, which meet the needs of a ‘contemporary learning environment’

• Related to university-wide curriculum renewal
Purpose of this Session

• To share ideas about the design of a modern learning space
• What is best practice?

• But first – some background
The Committee

• Representatives from:
  – Educational Development Unit
  – IT Services
  – Facilities Management
  – Audio Visual Services
  – Library
  – Equity Access and Diversity
  – Workplace Health and Safety
  – The Faculties
  – The Student Guild
Sources of Information

• Retrofitting University Learning Spaces Project
  – Mitchell, Pospisil, White

• Victoria University
  – Minimum Acceptable Standards for Teaching Spaces

• LaTrobe University
  – Teaching & Learning Spaces - Design Guidelines

• A range of site visits
“A university should be a civilising space”
Peter Jamieson, Strategic Advisor, Learning Environment Design, The University of Melbourne

How civilised is your campus?
Our Focus Today

• Some spaces are generally well understood
  – Large lecture theatres
    • except for the multiple screen problem
  – Informal learning spaces
    • can do more on a small scale

• Less well understood
  – Smaller to medium spaces

• Mainly on retrofitting
General Principles

Spaces should

1. support a range of learners and learning activities
2. provide a quality experience
3. foster a sense of safety
4. enable easy access
5. emphasize simplicity of design
6. integrate seamlessly with other spaces
7. be fit-for-purpose, now and into the future
8. embed appropriate technologies
9. minimise the university’s ecological footprint.
Design Guidelines

• We developed a series of guidelines about:
  – Teaching spaces
  – Room fitout
  – Furniture
  – Technology
  – Disability
  – Informal learning spaces
  – Signage
Teaching spaces

• Should be designed
  – to suit new pedagogies
  – for interaction and collaboration
  – to be used in flexible ways for multiple teaching approaches

• The design of teaching spaces sends messages to teachers about how these spaces can be used
Furniture

• Light-weight, ergonomic furniture that is stackable, movable and/or foldable

• Tables
  – on castors for ease of movement
  – curved or egg-shaped to enhance ‘flow’ in the room

• Chairs
  – ergonomic design and on castors

• Tension between
  – furniture for exams (750x450mm)
  – furniture for contemporary teaching
Lecterns

• All teaching spaces should have a lectern
A Murdoch ‘Lectern’
Lectern 2
Lectern 3
Lectern 4
Lectern 5
Lectern 6
Lecterns

• All teaching spaces should have a lectern
• The lectern must
  – house the appropriate educational technology
  – have a range of movement to allow different uses of space
  – be height adjustable to suit people of all sizes
• Different lecterns are needed for different space types
  – Movable
  – Height adjustable
# Space Types

<table>
<thead>
<tr>
<th>Room type</th>
<th>Capacity</th>
<th>Layout</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tutorial Room</td>
<td>10-25</td>
<td>Flat</td>
</tr>
<tr>
<td>Workshop room</td>
<td>26-50</td>
<td>Flat</td>
</tr>
<tr>
<td>Seminar room</td>
<td>51-100</td>
<td>Flat</td>
</tr>
<tr>
<td>Small lecture theatre</td>
<td>70-100</td>
<td>Tiered</td>
</tr>
<tr>
<td>Medium lecture theatre</td>
<td>100-200</td>
<td>Tiered</td>
</tr>
<tr>
<td>Large lecture theatre</td>
<td>200+</td>
<td>Tiered</td>
</tr>
</tbody>
</table>
## Standards Excerpt

<table>
<thead>
<tr>
<th>Learning Space Type</th>
<th>Tutorial Room</th>
<th>Workshop Room</th>
<th>Seminar Room</th>
<th>Small lecture theatre</th>
<th>Medium lecture theatre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial Standard (m²/seat)</td>
<td>2.5 m²</td>
<td>2.0 m²</td>
<td>2.0 m²</td>
<td>2.0 m²</td>
<td>1.3 – 1.5 m²</td>
</tr>
<tr>
<td>Aver. Seating Capacity</td>
<td>10-25</td>
<td>26-50</td>
<td>51-65 (100)</td>
<td>70-100</td>
<td>100-200</td>
</tr>
<tr>
<td>Average Room Size (m²)</td>
<td>50 m²</td>
<td>65-80 m²</td>
<td>120 m²</td>
<td>145-190 m²</td>
<td>225 – 350 m²</td>
</tr>
<tr>
<td>Furniture Provision (refresh)</td>
<td>N x 750x450 exam tables</td>
<td>N x 750x450 exam tables</td>
<td>N x 750x450 exam tables</td>
<td>existing</td>
<td>existing</td>
</tr>
<tr>
<td>Furniture Provision (refurb and new)</td>
<td>Nx1700x850 flip-top tables with mobile chairs.</td>
<td>Nx1700x850 flip-top tables with mobile chairs.</td>
<td>Nx1700x850 flip-top tables with mobile chairs.</td>
<td>See section 7.1.2.</td>
<td>existing</td>
</tr>
<tr>
<td>Communication Aids</td>
<td>1 projector/ 1 screen; whiteboard.</td>
<td>1 projector/ 1 screen; 2 whiteboards.</td>
<td>1 projector/ 1 screen; 3 whiteboards.</td>
<td>1 projector/ 1 screen; 3 whiteboards.</td>
<td>1 projector/ 1 screen; 3 whiteboards.</td>
</tr>
<tr>
<td>Lectern</td>
<td>Movable. To be used when sitting.</td>
<td>Movable, height adjustable.</td>
<td>Movable, height adjustable.</td>
<td>Fixed, but height adjustable. To</td>
<td>Fixed, but height adjustable. To</td>
</tr>
</tbody>
</table>


Flat Spaces

• Rows of tables and chairs, or...
Tiered Spaces
Discussion

• What is the state of the art at your university?
• Ideally, what would you like in a modern teaching space?
• Table shapes and sizes?
• One space for multiple purposes, or purpose-built spaces?
Changing Practice

• The design of teaching spaces sends messages to teachers about how these spaces can be used
Design and Consultation Process

• Full and open disclosure about all new buildings and refurbishments to the university community
• Stakeholders involved throughout and regularly consulted
• Post-occupancy evaluations
• Demonstration space
  – To trial new designs
  – To allow staff to practice
• Champions
• Professional Development