Multiple Methodologies for Space Assessment to Support Learning

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Brief history of space studies

Methods & Results
- Mapping
- Focus Groups & Surveys
- Photo Survey
- Structured Interviews

Where we go from here

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Space Studies:
A brief history of almost everything

  Library place as learning space
- Lewis (2007)
  Places to create knowledge
- McHarg, et al. (2006)
  Importance of physical library
  Multiple methods, qualitative & quantitative
Space Studies: A brief history of almost everything

- Potthoff (2007)
  Role Repertory Grid Procedure

- Cohens – Architects (2005)
  Need to understand human interaction and behavior

- Webb (2008)
  Surveys, video study, NSSE
Space Studies: A brief history of almost everything

- Crumpton & Crowe (2008)
  Surveys, observations, focus groups
- Foster & Gibbons (2007)
  Anthropological study
- Jordan, et al.
  Surveys, maps, focus groups
- Suarez (2007)
  Ethnographic methods
Bryman's reasons for using mixed-methods

- Validity/Triangulation
- Credibility
- Offset Weaknesses
- Completeness
- Instrument Development
Focus Groups

Advantages
- Yields more detailed data
- Clarify questions
- Good for pre-testing topics

Disadvantages
- Need skilled facilitator
- Time consuming to organize, transcribe, code, & analyze

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Advantages
• Conducive to large samples
• Wide range of topics
• Inexpensive
• Easy to analyze

Disadvantages
• Self-report bias
• Not in-depth or in-context
• Questions difficult to write

Surveys

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Observational Studies

- Allows for unanticipated outcomes
- Could be costly & time-consuming
- Requires more training
- Demands objectivity of observer
- Direct information about behavior
- Behavior at time of observation may be atypical
Mapping Survey

- Xia (2005) using Geographic Information System (GIS)
- Measure use of each study area over time
- Works only when users have a choice of where to sit

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### Results

#### Seating Preference at Rectangular Tables

<table>
<thead>
<tr>
<th>Place</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrel</td>
<td>20%</td>
</tr>
<tr>
<td>Rect. Table</td>
<td>36%</td>
</tr>
<tr>
<td>Round Table</td>
<td>14%</td>
</tr>
<tr>
<td>Workstations</td>
<td>9%</td>
</tr>
<tr>
<td>Group Rooms</td>
<td>12%</td>
</tr>
<tr>
<td>Lounge Chairs</td>
<td>9%</td>
</tr>
</tbody>
</table>

#### # of People in Group Rooms

<table>
<thead>
<tr>
<th># of People</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person</td>
<td>39%</td>
</tr>
<tr>
<td>2 people</td>
<td>35%</td>
</tr>
<tr>
<td>3 people</td>
<td>17%</td>
</tr>
<tr>
<td>4 people</td>
<td>7%</td>
</tr>
<tr>
<td>5 people</td>
<td>1%</td>
</tr>
<tr>
<td>6 people</td>
<td>1%</td>
</tr>
</tbody>
</table>

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Photo Survey

- Improved understanding of context
- Can be analyzed quantitatively or qualitatively or both
- Subjectivity of photographer
- Subjectivity of interpreter
Photo Survey
<table>
<thead>
<tr>
<th>Library</th>
<th>Table</th>
<th>1</th>
<th>outdoor</th>
<th>indoor</th>
<th>Other</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td></td>
<td>11</td>
<td>1</td>
<td>11</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Speaking/Listening</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Studying</td>
<td></td>
<td>11</td>
<td>11</td>
<td></td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Computer</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eating</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
</tr>
</tbody>
</table>

"Hi-Tech" Method of Quantitative Analysis
Structured Interviews

Advantages
- Ask clarifying questions
- More flexibility
- More complex data
- Interview while in study space

Disadvantages
- Takes more time
- Interviewers need to be trained
- Volume of data
- Interviewee may try to please

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Results

- For groups, it is important to have private space (97%) and important to have plugins for laptop use (82%).
- For individuals, the two most important attributes to study space are a window with a view (52%) and the type of seating (49%).
Where do we go from here? The WSUV Story

- Consolidate the data results into a report for the Director and the Library.
- Make minor changes immediately.
- Use parts of report in annual budget deliberations.
- Use information in planning process for remodel.
Where do we go from here? The Profession

- Need to move away from self-reporting of what patrons like.
- Need to use more authentic methods of understanding human behavior.
- Need to draw on methods from other disciplines.
- Roberts & Weaver (2008)
Question of the Hour

How do we determine what spaces are truly conducive to student learning?
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