Curricular Uses of Visual Materials: A Mixed-Method Institutional Study

CNI Spring Meeting
April 2009

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Mellon Planning Grant Overview

Steering Committee

- Site Visits
- Retreat
- Case Study Reports
- Retreat

Research Group

- Ethnographic Study
- Initial Surveys (Initial Needs Assessment)

Spring

- Approve Recommendations (P&M Document)
- Programmatic and Space Planning Discussions
- Ongoing Survey (Ongoing Needs Assessment)

Summer '08

Next Steps:
Implementation Discussions
Work with Other Institutions
Research Question

Are the sources of support that the College provides well suited to the work demanded of students and faculty as they make curricular use of visual materials?
Methods Used

• Case Study

Photo Survey & Location Logs

Interviews

• CoViewing/CoListening

• Flip Charts

• Surveys (Students, Faculty, and Staff)
Standing on the Shoulders...

Studying Students: The Undergraduate Research Project at the University of Rochester (Foster & Gibbons, 2007)

- Mapping diary
- Photo survey
- Co-Viewing/Co-Listening exercises
- Flip-Chart exercise
- Detailed and authentic feedback
Case Study Methods
Adaptations

- Having student researchers as a part of our team (pre-testing, conducting interviews, transcription, coding, and analyses)
- Customize photo-survey prompts, mapping diary -> location logs
- Condensing co-viewing/co-listening process
- Using GIS to map student engagement with the campus
Cases: Course Assignments

- **Film Short Creation** - 100 level course experience in visual storytelling through the creation of a video.

- **Group Presentation** - 200 level course required two-person teams about species in Carleton’s arboretum.

- **Film Analysis** - 100 level course with enrollment limited to first-year students during their first term.

- **Science Writing** - 200 level course included term-long project culminating in writing a scientific article that relied on color-coded maps student created.
Case Studies
Student Hours Logged Across Cases

- midnight - 5 am: 6%
- 5 am - noon: 6%
- noon - 5 pm: 30%
- 5 pm - midnight: 58%
Case Study Recommendations: Over Arching

• Curricular support is not just for students who are struggling
• Communication
• Course-specific instruction
• Supplemental training for high-end tools
• Identify and advertise sources of support
Case Study Recommendations: Student Support

- Support students in places and times they work
- Recognize the multi-faceted approaches to providing curricular support to students
- Model exemplary work
- Provide broad access to resources
- Careful design of work environments
Case Study Recommendations: Faculty Support

- Discussing assignments and support
- Provide team-based support for selected assignments
- Continue to refine our understanding of “visual literacy”
Survey Results
Surveys

- Faculty - Gauges interest in curricular uses of visual materials, perceived barriers, and responses to proposed elements of coordinated support model (40% of population of 259)

- Student - Looks at where and when students work on assignments, when and from whom they seek assistance (43-39% of 790 sample)

- Staff - Inventory of curricular support (30% of population of 487)
Assignments Created in Previous Academic Year

- **Interpret:**
  - Yes: 91%
  - No: 10%

- **Create:**
  - Yes: 62%
  - No: 38%

- **Present:**
  - Yes: 76%
  - No: 24%

- **Express Ideas Visually:**
  - Yes: 71%
  - No: 27%
Where Students Work

- **Familiar**
- **Challenging**

<table>
<thead>
<tr>
<th>Location</th>
<th>Familiar</th>
<th>Challenging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Res. Hall</td>
<td>78%</td>
<td>72%</td>
</tr>
<tr>
<td>Library</td>
<td>57%</td>
<td>59%</td>
</tr>
<tr>
<td>Sayles Hill</td>
<td>18%</td>
<td>13%</td>
</tr>
<tr>
<td>Lab/Studio</td>
<td>13%</td>
<td>12%</td>
</tr>
<tr>
<td>Acad. Lounge</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>Acad. Center</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Classroom</td>
<td>8%</td>
<td>10%</td>
</tr>
</tbody>
</table>
Student Reported Sources of Support

- Classmate: 43%, 45%
- Professor: 37%, 39%
- No Support: 34%, 28%
- Major: 14%, 13%
- TA/Prefect: 12%, 14%
- Stu. Worker: 11%, 10%
- Staff: 8%, 9%
- Other Faculty: 2%, 6%

- Familiar
- Challenging
Staff Reported Curricular Support

- Coordinated and Direct: 51%
- Coordinated: 26%
- Direct: 14%
- None: 8%
Support for a Challenging Assignment by Class Year

- Classmate
- Professor
- Major
- TA/Prefect
- Stu. Worker
- Staff
- Other Faculty
- No Support

First Year
Sophomore
Junior
Senior
Support for a Challenging Assignment by Class Year

- Classmate
- Professor
- No Support
- Major
- TA/Prefect
- Stu. Worker
- Staff
- Other Faculty

First Year Sophomore Junior Senior

0% 25% 50% 75% 100%
Support for a Challenging Assignment by Class Year

- Classmate
- Professor
- No Support
- Major
- TA/Prefect
- Stu. Worker
- Staff
- Other Faculty

First Year
Sophomore
Junior
Senior
When Students Seek Assistance by Class Year

First Year | Sophomore | Junior | Senior
---|---|---|---
4-8 am | 8-Noon | Noon-4 | 4-8 pm | 8-Midnight | Midnight-4
Sources of Support by Times of Day (Scale Change)

- Classmate
- Professor
- Major
- TA/Prefect
- Stu. Worker
- Staff

- 4-8 am
- 8-Noon
- Noon-4
- 4-8 pm
- 8-Midnight
- Midnight-4
Sources of Support by Times of Day (Scale Change)

- Classmate
- Professor
- Major
- TA/Prefect
- Stu. Worker
- Staff

Times of Day:
- 4-8 am
- 8-Noon
- Noon-4
- 4-8 pm
- 8-Midnight
- Midnight-Midnight
Sources of Support by Times of Day
(Scale Change)

- Classmate
- Professor
- Major
- TA/Prefect
- Stu. Worker
- Staff

4-8 am  8-Noon  Noon-4  4-8 pm  8-Midnight-Midnight-4
Sources of Support by Times of Day
(Scale Change)

- Classmate
- Professor
- Major
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- Stu. W orker
- 4-8 am
- 8-Noon
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- 4-8 pm
- 8-Midnight
- Midnight-4
Sources of Support by Times of Day
(Scale Change)

Classmate | Professor | Major | TA/Prefect
Stu. Worker | Classmate | Professor | Staff

4-8 am | 8-Noon | Noon-4 | 4-8 pm | 8-Midnight-Midnight-4
0% | 10% | 20% | 30% | 40% | 50%
Sources of Support by Times of Day
(Scale Change)

- Classmate
- Professor
- Major
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- Stu. Worker
- Staff

4-8 am  8-Noon  Noon-4  4-8 pm  8-Midnight  Midnight-4
Sources of Support by Times of Day (Scale Change)
Implications for Study Spaces

- Writing assignments (text analyses, essays, research papers, & short essays) sought comfortable furniture, solitary, quiet spaces, and wireless access at greater rates.

- Other assignments (problem sets, image creation, lab assignments, exams, presentation) reported seeking study spaces with “help nearby” at a greater rates.
Departmentally-Based Support Communities

- Departmental space with desks allocated to seniors

- Support community that extended beyond the class for using high-end tools “where you go and wait for a senior to come who knows how to use Illustrator.”

- Implications for thinking of both campus-wide spaces and departmentally focused ones
Outcomes for Carleton

• Andrew W. Mellon Foundation grant, in part, for implementation of coordinated support model

• Design of the Arts Union and revised design of two residence halls

• Principles and mechanisms of coordinated support

• Considering metaphors: project management to production meeting

• Parsing assignments: finding, accessing, creating, interpreting, and presenting
Discussion

• Questions about tools, methods, or findings?

• Were there findings that surprised you?

• Are elements of the research project useful for you and/or your institution?

• Who might you partner with at your own institution to reflect on student practices and needs?
For Further Information

• Full research report and materials: go.carleton.edu/cuvm

• Aligning Learning Space Design and Student Work: Research Implications for Design Processes and Elements. EDUCAUSE Quarterly Magazine, Volume 32, Number 1, 2009

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