Footholds and Foundations
Setting Freshmen on the Path to Lifelong Learning
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LOEX of the West 2006, Hawaii, HI
Basic Background Facts

University of North Texas

• Core curriculum = lists of electives
  • Required courses include:
    • Basic U.S. History
    • Political Science
    • Freshmen English (1310 & 1320)
ACRL Standards

Library instruction sessions teach ACRL Information Literacy Competency Standards for Higher Education within our curriculum

- Research skills
- Catalog searching
- Database searching
- Help from a librarian
Success?

English Library Instruction Sessions

• Average about 80 sessions per academic year
• Four years of successful collaboration with the English department
Assessment Options

- Paper surveys
- Online surveys
  - Problem:
    - Students report what they think they know
  - Goal: empirical evidence of learning
  - Solution:
    - Create our own performance-based software
Software Development

General Requirements

• Provide assessment on each student PC
• Collect anonymous individual results
• Collect browser activity for each PC only during actual testing timeframe
• Start assessment simultaneously for all students from teacher PC
Software Development

Requirement
• Provide assessment on each student PC

Solution
• Use HTML forms that collect info as students interact with the forms while taking the assessment
• Submit assessment forms to a web server that will save the results to files for viewing / analysis
Software Development

Requirement
• Collect anonymous, individual results

Solution
• Use host name of PC as identifier to link together pre-test and post-test results for comparison
• Student names are never obtained
Software Development

Requirement
• Collect browser activity for each PC only during actual testing timeframe

Solution
• Custom program to monitor start / stop times and analyze browser history for both pre-test and post-test individually
Software Development

Requirement
- Start assessment simultaneously for all students from teacher PC

Solution
- All files installed on each PC at every reboot
- NetSupport School – from one PC, you can...
  - Reboot all student PCs simultaneously
  - Run executables on all student PCs
  - Distribute files to one or all PCs, if needed
  - Monitor student PC activities
Assessment Tool

Development of Assessment Tool

• Worked with Frank Gosnell to develop software
• Identified skills necessary for success at research paper assignment
• Prepared questions that demonstrate skills
• Identified URLs that point to success in demonstrating skills
Step 1: How likely are you to ask a librarian for help?
Step 2: From the UNT Libraries homepage, find the Webpage that has help from a librarian.
Step 3: Perform a subject search for Robert Frost in the library catalog.
Assessment Instrument

Step 4: Perform a search in Academic Search Premier for the term Robert Frost.
Basic Background Facts

UNT Library Instruction

- 900 English 1320 students attended a library instruction session in Fall 2005
- 1475 English 1320 students attended a library instruction session in Spring 2006
- Total = 2375 students
Basic Background Facts

UNT Library Instruction Assessment

- 48 English 1320 classes completed the assessment in Fall 2005 & Spring 2006
  - 90 minute class sessions only
  - Completely anonymous
  - Institutional Review Board approved
  - 499 useable results
How likely are students to ask for help from a librarian?

Very = 40%
Somewhat = 30.72%
Neutral = 17.11%
Not at all = 2.47%
No response = 9.69%
How likely are students to ask for help from a librarian?

- Very: 57.11%
- Somewhat: 27.8%
- Neutral: 7.63%
- Not at all: 0.21%
- No response: 7.22%
## Library Anxiety – Comparison

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very</td>
<td>40%</td>
<td>57.11%</td>
<td>17.11%</td>
</tr>
<tr>
<td>Somewhat</td>
<td>30.2%</td>
<td>27.8%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Neutral</td>
<td>17.11%</td>
<td>7.63%</td>
<td>9.48%</td>
</tr>
<tr>
<td>Not at all</td>
<td>2.47%</td>
<td>.21%</td>
<td>2.2%</td>
</tr>
<tr>
<td>No response</td>
<td>9.69%</td>
<td>7.22%</td>
<td>2.47%</td>
</tr>
</tbody>
</table>

- Positive Results Up: 14.71%
- Neutral Results Down: 11.68%
- Negative Results Down: 2.2%
Results – Pre-test

What do students know in terms of basic library technology skills when they first start college?
Results – Searching Skills

Pre-test Results

- Help page: 68.04%
- Catalog: 1.24%
- Academic Search Premier: 16.49%

Successful
Results – Analysis

Our thoughts on students’ basic library technology skills on college entry:

• Basic searches essential to information literacy
  • Foundational building blocks
• Necessity of evaluation skills
  • Using library resources makes evaluation easier
Results – Post-test

Do students understand some tools better than others after instruction?
Results – Searching Skills

Post-test Results

Help page: 58.56%
Catalog: 11.13%
Academic Search Premier: 49.69%
Results – Analysis

Percentage changes between students’ pre-test and post-test results:

- 33.2% increase in ability to search Academic Search Premier.
- 9.89% increase in ability to search the catalog.
- 9.48% decrease in ability to find help from a librarian.
Results – Analysis

Questions about the comparison of pre-test and post-test results:

• Why is there such a difference between the level of students’ ability to search the catalog and Academic Search Premier?
• Why did ability to find the Help page decrease between the pre-test and post-test?
Results – Analysis

What we show in class.

What we should show.
Results – Post Post-test

Are students retaining what we are teaching?
Results – Searching Skills

Post Post-test Results

- Help page: 73.70%
- Catalog: 7.80%
- Academic Search Premier: 47.43%
• Ability to find Help page in the post test is significantly higher than it was in both the pre and post-tests.
• Only slight decrease in post-test and post post-test catalog and Academic Search Premier
# Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-test</th>
<th>Post-test</th>
<th>Post Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Help</strong></td>
<td>68.04%</td>
<td>58.56%</td>
<td>73.7%</td>
</tr>
<tr>
<td><strong>Catalog</strong></td>
<td>1.24%</td>
<td>11.13%</td>
<td>7.8%</td>
</tr>
<tr>
<td><strong>Academic Search Premier</strong></td>
<td>16.49%</td>
<td>49.69%</td>
<td>47.43%</td>
</tr>
</tbody>
</table>
Conclusions

- Catalog is much more difficult for students to use
- Even though only doing one-shot instruction, students are retaining the skills
- Library anxiety decreases after library instruction session
Finally…

• Assessment tool is under development to be offered as either freeware or at a cost recovery.
• For more information on assessment software: http://www.library.unt.edu/assess
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