Improving Student Success: Researching How Students Use Electronic Library Resources

Ethnographic and Qualitative Methods 2010
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Research Conducted for the UNT Libraries
Research Goal

To investigate how students at the University of North Texas use electronic library services.
Major Research Questions

1. To create a profile of the typical library user, including student career, external obligations, work style, and technology use.

2. To investigate students’ knowledge of and learning about electronic library services.

3. To investigate students’ behaviors regarding electronic library services.

4. To investigate students’ needs regarding electronic library services.

5. To investigate students’ preferences regarding electronic library services.
Research Population

UNT Students

Data Collection

10 observations
20 interviews
5 focus groups
Demographic Profile

UNT Libraries
Age and Gender

(number of students)

- Over 26: 16
- 26 and younger: 14
- Male: 18
- Female: 12
Class Level

- Freshmen and sophomore: 3
- Junior and senior: 15
- Graduate: 12

(number of students)
Class Load

Undergraduate Students
- Taking less than 12 hours: 7
- Taking 12 hours or more: 11

Graduate Students
- Taking less than 9 hours: 3
- Taking 9 hours or more: 8

(number of students)
Background

- Majority from Texas (22)
- International students (8)
- Rest from various areas and other states (3)
Language Profile

• Majority speak English (22)
• Many speak English as a second language (8)
• Wide variety of languages from Arabic to Vietnamese
Cities

Majority live in Denton
College Profile

(number of students)

- CAS: 10
- PACS: 7
- Business: 6
- Music: 3
- Information: 1
- CVAD: 1
- Journalism: 1

UNT Libraries
Disability

• Majority reported no disabilities
• 3 out of 24 (12.5%) had disabilities
  • ADHD, Dyslexia, Vision Problems and others
Outside of School Obligations

Work Profile
- Works 20 hours or less a week: 9
- Works more than 20 hours a week: 12

(number of students)

Family Profile
- No family requirements: 10
- Family requirements: 17

(number of students)
Personal Resources

Adequate Resources

- PC laptop 21
- Printer 17
- PC desktop 14
- Smart phones 2
- 12 People talked about using the UNT computers and printers

(number of students)
Preferred Resources

Preferred resources to conduct online research

• Laptop
• Desktop
• Kindle
• I-Pad
Preferred Browsers

<table>
<thead>
<tr>
<th>Browser</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet Explorer</td>
<td>8</td>
</tr>
<tr>
<td>FireFox</td>
<td>5</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>4</td>
</tr>
<tr>
<td>Safari</td>
<td>3</td>
</tr>
</tbody>
</table>
Preferred Time of Day

(Number of students)

- Night: 6
- Morning: 5
- Afternoon: 4
- All day: 3
- Evening: 2
- Midday: 1
Work Environment Preference

1. Work at Home
2. General Access Labs
3. Work Offices
4. School Library
Student Experience with Online Research

UNT Libraries
Experience & Skill Level

- High Experience: 10
- Low Experience: 10
- Low Skill: 5
- High Skill: 15

(number of students)
Experience

(number of students)
Experience

Graduate Students

- Low Experience: 3 students
- High Experience: 7 students

Undergraduate Students

- Low Experience: 10 students
- High Experience: 4 students

(number of students)
Undergraduate Student’s Experience Conducting Online Research

Freshman & Sophomore
- Low Experience: 3
- High Experience: 0

Junior & Senior
- Low Experience: 4
- High Experience: 6

(number of students)
Knowledge of UNT Electronic Resources
## Knowledge

<table>
<thead>
<tr>
<th>E-Journals</th>
<th>E-books</th>
<th>Full Text</th>
<th>Interlibrary Loan</th>
<th>Search Databases</th>
<th>Theses/Dissertation Database</th>
</tr>
</thead>
<tbody>
<tr>
<td>85%</td>
<td>75%</td>
<td>75%</td>
<td>65%</td>
<td>65%</td>
<td>30%</td>
</tr>
</tbody>
</table>

## Search Databases

<table>
<thead>
<tr>
<th>All</th>
<th>Undergrad</th>
<th>Undergrad Lower</th>
<th>Undergrad Upper</th>
<th>Graduate</th>
<th>Masters</th>
<th>Doctorate</th>
</tr>
</thead>
<tbody>
<tr>
<td>65%</td>
<td>54%</td>
<td>33%</td>
<td>60%</td>
<td>86%</td>
<td>100%</td>
<td>80%</td>
</tr>
</tbody>
</table>

(Out of 20 interviews)
Knowledge

- E-Journals
  - 33% - Lower level undergraduates
  - 90% - Upper level undergraduates

- ILL
  - 83% - Over the age of 26
  - 38% - 26 and under

- Theses and Dissertation Database
  - 71% - Graduate students
  - 8% - Undergraduate students
Library Instruction

UNT Libraries
Library Instruction

• Instruction from librarian
  • 63% yes, 37% no
  • 73% helpful, 27% unhelpful
  • Criticisms
    • timing, relevance, information overload
• Instruction from professor
  • 55% yes, 45% no
• Comments
  • helpful, generally quick, sometimes outside of class (one on one), more relevant to class
• Online tutorials and workshops
  • 37% aware, 63% unaware
Preferred Learning Method

- Personal interactive instruction
  - Course specific
  - Physical material for future reference
- Separate library orientation
  - Orientation is overwhelming
  - Research instruction not yet relevant
    - later in semester
  - Field specific
- Online video instruction
  - Short, “how-to” videos
  - Relevant to certain problems
Ideal Way to Get Library News

• 75% - e-mails/newsletters
  • Field specific
  • Possibly from specific department’s librarian

• Links on blackboard
  • Every class now has a blackboard page
  • Librarian contact information
The General Research Process

UNT Libraries
Having a topic, assignment, or keyword

Selecting some keywords

Going to the UNT library (usually through www.unt.edu)

Selecting the resources (usually E-journals)

Selecting the database (usually EBSCOhost, ABI-Inform, and JSTOR)

Searching the general keywords

Finding Full-text

Trying other key words / databases

Going to Google / Asking ILL

Giving up

No

Yes

Finding a large number of resources

Narrowing down the search

Selecting / Saving / Printing
Having very broad idea / topic

Going to search engines (usually Google or Google Scholar)

Finding some ideas / keywords / resources

Finding Full-text

No

Going to the UNT library website

Yes

Selecting / Saving / Printing
Although they were asked about UNT electronic resources, three participants mentioned that they start with Google and then go to UNT website.

“I don’t always think of the library first.”
Strengths of UNT Electronic Resources
Strengths

• Accessing resources other than journals (financial databases, music databases, books/e-books, dissertations, or ILL services)

• More credible and relevant search results (compared to Google search)

• Accessing full text resources for free

• Being required to use specific resources (via links on Blackboard)

• Using electronic folders and personal accounts, and resuming search within a database with the same keywords
Barriers to Using UNT Electronic Resources
Barriers

• Search difficulties

  • Complex and not user friendly website
    “It was like a maze getting to it, but I remember when I finally found my article, I was so tired of searching for it.”

  • Not an umbrella or comprehensive search engine
    “I just think the server needs to be consolidated into a single search rather than having you know the exact engine you’re looking through.”
Barriers

• Limited access to full text (limited coverage, not updated)

“Sometimes when you are looking for an article, it’s not there or they don’t have the subscription to this publication so you can’t access it.”

• Technology related problems

“Sometimes there is something wrong with the server… it doesn’t work… just freeze…”
Searching with other Websites
Why Other Websites?

- Accessing articles available in library resources through Google and Google Scholar
- Checking citation counts in Google Scholar
- When cannot find a resource in UNT library
- Very broad search for exploratory research without specific keyword (just the topic or idea)
- Very easy to use (only one box)
Research Roadblocks and Getting Help
Research Roadblocks

• Do users get stuck?
  • 19/20 on UNT

“…seems like it was made by either a combination of computer nerd and professor, but I really don't think there's much professors in there, because professors would be able to help a little bit.”
Preferred Help Strategy

What Kind?
-Prompt

Course-Specific
- Instructors
- Peers
- Librarians & Other Experts

General
- Librarians & Experts
- Help Desk
- Peers

Instructors
Peers
Librarians & Other Experts
Librarians & Experts
Help Desk
Peers
How to Get Help

Instructors and Peers
- Syllabus Instructions
- Blackboard
- Emails
- Demos
- Tours
- Chat & Blogs
- Invite Librarian

Library
- Chat
- Video Chat
- Remote Access
- Fun & Short Tutorials
- Emails
- Popup Instructions
- Hands On
Librarians
Knowledge of Librarians

Knowledge
(Interviews only)

Library & Research
(12/20)

Locating Resources

Information

Check-out books

Circulation
(4/20)

Reserving/Requesting

Liaison/Experts
(3/20)
“…they know the system and expect everybody to already know the system… I think somebody should tell them no… it’s a different language to us.”
Managing Information

UNT Libraries
Managing Information

- 17 out of 26 print out their articles for review
- 12 out of 26 copy and paste and half keep some sort of electronic files (most use PDF files)
- Almost half of users keep notes through their process
UNT Libraries Website

• “…UNT is always the last resort… I just panic when I know that I have to go on the UNT website… because it’s not user friendly… so I try to work around it first.”
• Most users reach the site from UNT home page
• 23 of 26 users said the site is confusing
• 16 users were unaware of online tutorials
• Hard to find library services information
User Suggestions

UNT Libraries
User Suggestions

- More user-friendly design
- Opportunities for user customization
- Improved searching of databases and articles
- Video assistance and video tutorials
- Late hours online assistance
- Compatibility with a variety of devices
User Suggestions

• “The library should be the hub of the university because it’s the one place where all the disciplines will intersect. So it has to be a physical place and it also has to be an electronic place.”
Recommendations

UNT Libraries
Recommendations

- Improve user experience
  - Design integrated search tool
  - Simplify website

- Improve library instruction
  - Collaboration between library and professors
  - Personalize instruction (major specific)
    - Instruction during semester
  - Make video tutorials quick and interesting

- Improve Communication
  - Highlight department librarians
  - E-newsletters with library updates