Factors that Influence Undergraduate Information-Seeking Behavior and Lead to Success

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Definition: Process by which students find sources to use for papers and projects that involve library research.

Search Engines

(Electronic databases, Google Scholar, Google, Yahoo!)

Qualities of Sources

(Full text online, peer-reviewed, journal reputation, author reputation)

Types of Sources

(Scholarly articles, books, popular press, Wikipedia, Blogs)

Student's Physical Location

(Library, on-campus, residence)

1. Describe student information seeking behavior at UWL

2. What factors influence it?

   - Factors that library staff and instructors can control
   - Background, demographic, and academic variables

Convenience is a driving factor for search engine choice

- Popular search engines are most popular
- To blame: Volume and complexity of library search tools (Lee, H., 2008; Connaway et al., 2011; Taylor, 2012; Lee, J., 2012; Rempel, 2013)
- Georgas (2013) directly observed students... not knowing what they were looking at...
- Still, students have a high self evaluation of their research skills (Georgas 2013, 2014)

No change with academic progression

- Mbabu et al. (2012): Juniors and seniors used the subscription databases less than freshmen and sophomores.
- Callinan (2005): Both first-year and final-year students struggled to use library electronic resources.

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Survey sent to UW-L students in Fall 2013

542 respondents

Variables include...

- Information seeking behavior
- Experience with instructors and library staff
- Academic, background, and demographic variables

Strategy

1. Describe data on students' information seeking behavior
   - *Identify opportunities!*
2. Estimate influences from other variables

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Resource	Frequency	Percentage
Library electronic resource	202	42%
Google.com	188	39%
Google Scholar	73	15%
Wikipedia	6	1%
Other	6	1%
Total Responses	476	100%

- Significant number start with library's resources
- A majority start from a scholarly source
- Comfortable, convenient search engines (Google.com) still very popular.

Attribute	Never / Not sure (1)	Rarely (2)	Some-times (3)	Most of the time (4)	Always (5)	Interp. Median
EBSCO	27 (5%)	29 (6%)	111 (23%)	122 (46%)	98 (20%)	3.84
Subject-Specific	116 (24%)	121 (25%)	152 (31%)	77 (16%)	20 (4%)	2.53

- On average, high reported usage of library search engines
- Subject-specific databases are not as common
- *Useful features:* narrow by peer review, narrow by date range

Attribute	Never / Not sure (1)	Rarely (2)	Some-times (3)	Most of the time (4)	Always (5)	Interp. Median
Scholarly Articles	16 (3%)	42 (9%)	124 (25%)	164 (33%)	174 (30%)	3.89
Wikipedia etc.	48 (10%)	133 (27%)	143 (29%)	126 (25%)	45 (9%)	2.96
Books	33 (7%)	125 (25%)	194 (39%)	101 (20%)	43 (9%)	2.96
Popular Press	55 (11%)	156 (32%)	171 (35%)	84 (17%)	28 (6%)	2.71

Scholarly articles comes in first... *Wikipedia* strong second.

Attribute	Not Important (1)	Somewhat Unimportant (2)	Neutral (3)	Somewhat Important (4)	Very Important (5)	Interp. Median
Relevant	1 (0%)	0 (0%)	9 (2%)	84 (19%)	342 (78%)	4.86
Full Text	1 (0%)	11 (3%)	17 (4%)	132 (30%)	276 (63%)	4.71
Understand	2 (0%)	6 (1%)	16 (4%)	173 (41%)	224 (53%)	4.56
Recent	4 (1%)	18 (4%)	19 (5%)	201 (49%)	166 (41%)	4.31
Peer Reviewed	6 (2%)	41 (11%)	62 (16%)	131 (35%)	138 (37%)	4.11
Author Reputation	5 (1%)	32 (9%)	56 (15%)	163 (43%)	120 (32%)	4.08
Source Reputation	4 (1%)	39 (11%)	76 (21%)	181 (49%)	70 (19%)	3.8
Physical Availability	52 (14%)	96 (26%)	71 (19%)	96 (26%)	57 (15%)	3.04

- Students admit to valuing convenience highly (full text available online)
- Popular use of Wikipedia, popular search engines
- Still, scholarly articles and library search tools are also in high usage

When doing work for projects involving library research, where do you students do most of this work?

Location	Frequency	Percentage
On-campus Library	316	58%
Residence	201	37%
Other Off Campus	14	3%
Other On Campus	11	2%

At the library.

About once per week.

Location	Frequency	Percentage
More than 4 times per week (5)	84	16%
2-3 times per week (4)	134	25%
Once per week (3)	83	15%
2-3 times per month (2)	135	25%
Once per month or less (1)	106	20%
Interpolated Median	2.86	

Library is popular

- Library staff to help search process
- Only general access computer lab on campus
- Easy to download articles from university-paid subscriptions

Rarely.

Location	Frequency	Percentage
Very often (5)	6	1%
Often (4)	21	4%
Sometimes (3)	98	19%
Rarely (2)	244	47%
Never (1)	149	29%
Interpolated Median	1.95	

- Students use the library
- Students use library search databases
- Students use and value scholarly sources
- Popular search engines and Wikipedia are still very popular

Variables Staff / Instructors Control

- *Encourage:* Do instructors encourage students to use electronic databases? (=1 if frequently)
- *List:* Do instructors give reading lists? (=1 if frequently/occasionally)
- *ClassVisit:* Did a library staff member visit their class? (=1 if so)

Academic Variables

- *ColBus* and *ColSci*: Binary variable for colleges of business and science, respectively. Omitted category is College of Liberal Studies.
- *ACT*: College entrance exam score

Demographic Variables

- *Age*
- *ParentEdu:* =1 if at least one parent has 4-year college degree
- *Female:* =1 if student identifies as female
- *Non-white:* =1 if student identifies race as something other than white

Dependent variable: **Scholarly starting point**
(Library resource or Google Scholar)

Logistic Regression Results

Variable	Coefficient	P-Value
Constant	-1.06	0.445
Encourage	0.86	0.000***
List	-0.52	0.013**
ClassVisit	-0.05	0.848
ColBus	-0.36	0.192
ColSci	-0.15	0.541
ACT	-0.02	0.584
Age	0.05	0.118
ParentEdu	-0.12	0.576
Female	0.62	0.008***
Nonwhite	1.02	0.091*

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Dependent variable: Highest **frequency using EBSCO or subject-specific databases** (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	1.65	0.000***
List	0.25	0.185
ClassVisit	0.72	0.001***
ColBus	-0.71	0.004***
ColSci	-0.55	0.011***
ACT	0.04	0.239
Age	0.01	0.79
ParentEdu	0.29	0.138
Female	0.45	0.034**
Nonwhite	0.3	0.54

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Dependent variable: **Frequency using scholarly articles** for papers/projects (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	1.192	0.002***
List	-0.151	0.407
ClassVisit	0.248	0.268
ColBus	-0.472	0.047**
ColSci	-0.475	0.025**
ACT	0.148	0.005***
Age	0.008	0.774
ParentEdu	-0.02	0.916
Female	0.308	0.15
Nonwhite	-0.011	0.982

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Dependent variable: **Frequency using Wikipedia**, blogs, etc., for papers/projects (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	0.016	0.967
List	0.075	0.679
ClassVisit	0.139	0.523
ColBus	0.85	0.000***
ColSci	0.346	0.096*
ACT	0.08	0.045**
Age	-0.041	0.162
ParentEdu	0.146	0.438
Female	0.021	0.92
Nonwhite	0.358	0.412

Dependent variable: **Frequency using Wikipedia**, blogs, etc., for papers/projects (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	0.016	0.967
List	0.075	0.679
ClassVisit	0.139	0.523
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Dependent variable: Value judgment for **peer-review** (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	0.631	0.17
List	0.552	0.006***
ClassVisit	0.472	0.058*
ColBus	-0.698	0.009***
ColSci	0.161	0.5
ACT	0.087	0.114
Age	-0.022	0.513
ParentEdu	-0.309	0.146
Female	-0.297	0.205
Nonwhite	0.183	0.741

Dependent variable: Value judgment for **peer-review** (ordinal scale)

Ordered Logit Regression Results

Variable	Coefficient	P-Value
Encourage	0.631	0.17
List	0.552	0.006***
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Other qualities besides peer-reviewed

Relevancy, Full text available, Understandable, Recent, Author Reputation, Source Reputation, Physical Availability

A lot of regressions show **not much** of any of these are explained by group of explanatory variables.

Good and questionable information-seeking behavior

- We have a lot of students using library electronic databases and finding scholarly articles
- We also have a lot of students using Google.com and Wikipedia.org
- Students have presence on campus and in library

Staff and instructors can make a difference

- Instructors encouragement leads to more use of electronic databases and scholarly articles
- Giving reading lists leads to more value for peer-review, but less use of electronic databases
- Class visits by library staff leads to higher use of electronic databases, higher value for peer-review
- More need in colleges of business and science/health

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