

The Link Among Faculty Purposes of Reading, Information Seeking Patterns, Aspects of Use, Value and the ROI in Journal Collections

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Topics Covered In the Presentation

- Data collection methods
- Contexts for assessing academic journal collections
- The path to assessing the collection value and return-on-investment
- Examples of the power of the critical incident method



Data Collection Methods

- Surveys of users of potential users to establish value
- In-depth cost analysis of library resources

Survey Methods

- IMLS sponsored surveys of five US university faculty and students
- Faculty surveyed by a web-based method ($n = 1,307$)
- Students surveyed by asking sampled faculty to distribute a questionnaire and also web-based (not covered here)
- Some topics covered
 - Number of articles read in past month
 - Critical incident of last reading
 - How initially found out about article (time spent)
 - Source of article read (time spent)
 - Purpose of reading
 - Format of article
 - Outcome from reading

In-depth Cost Study

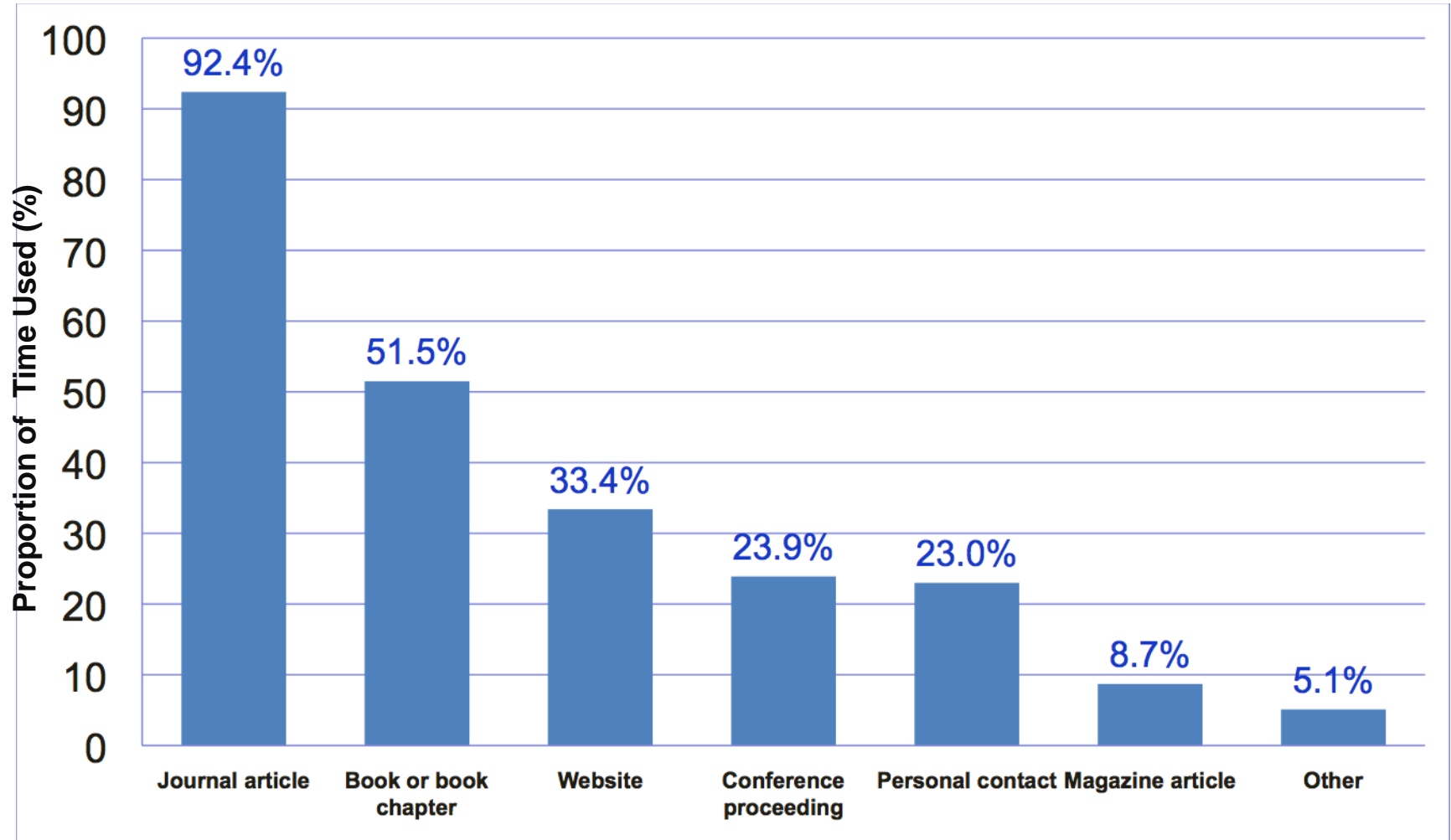
- Conducted at the University of Pittsburgh
- Also done at ten other universities (Ithaca-Schonfeld, et al.)
- Examined cost of five journal collection services:
 - Access to the electronic collection
 - Access to the current periodicals collection
 - Access to the in-library shelved collection
 - Access to the off-site collection
 - Interlibrary lending and borrowing
- Allocated resources to 67 activities: staff, space, shelving, workstations, systems, equipment, etc.



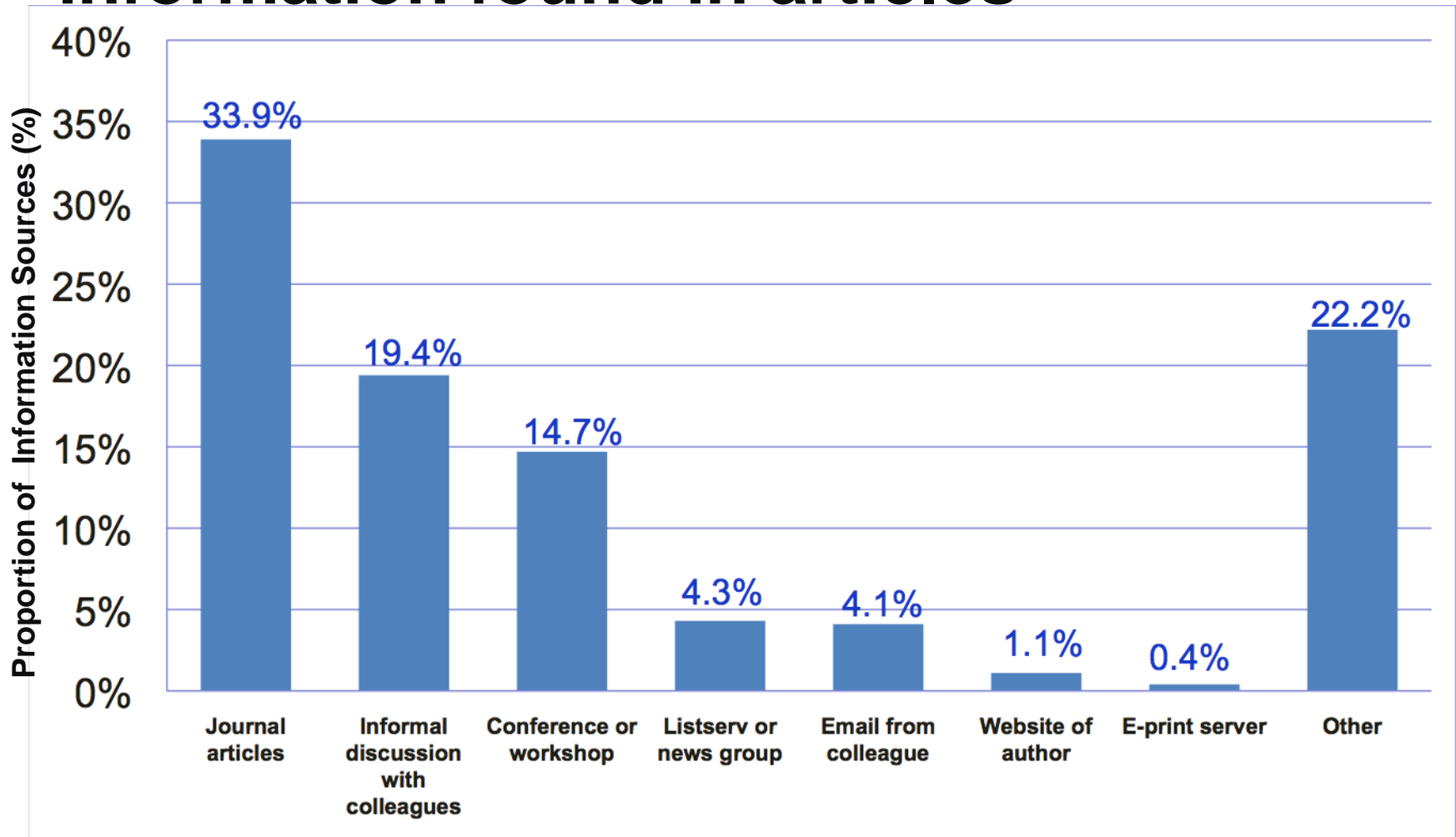
Contexts For Assessing Academic Journal Collections

- What sources did you use for the last substantive piece of information you used for work?
- Prior to your first reading of this article, did you know the information reported or discussed in this article?
- If yes, how did you first find out about the information?
- From what source did you read this article?

Information sources used

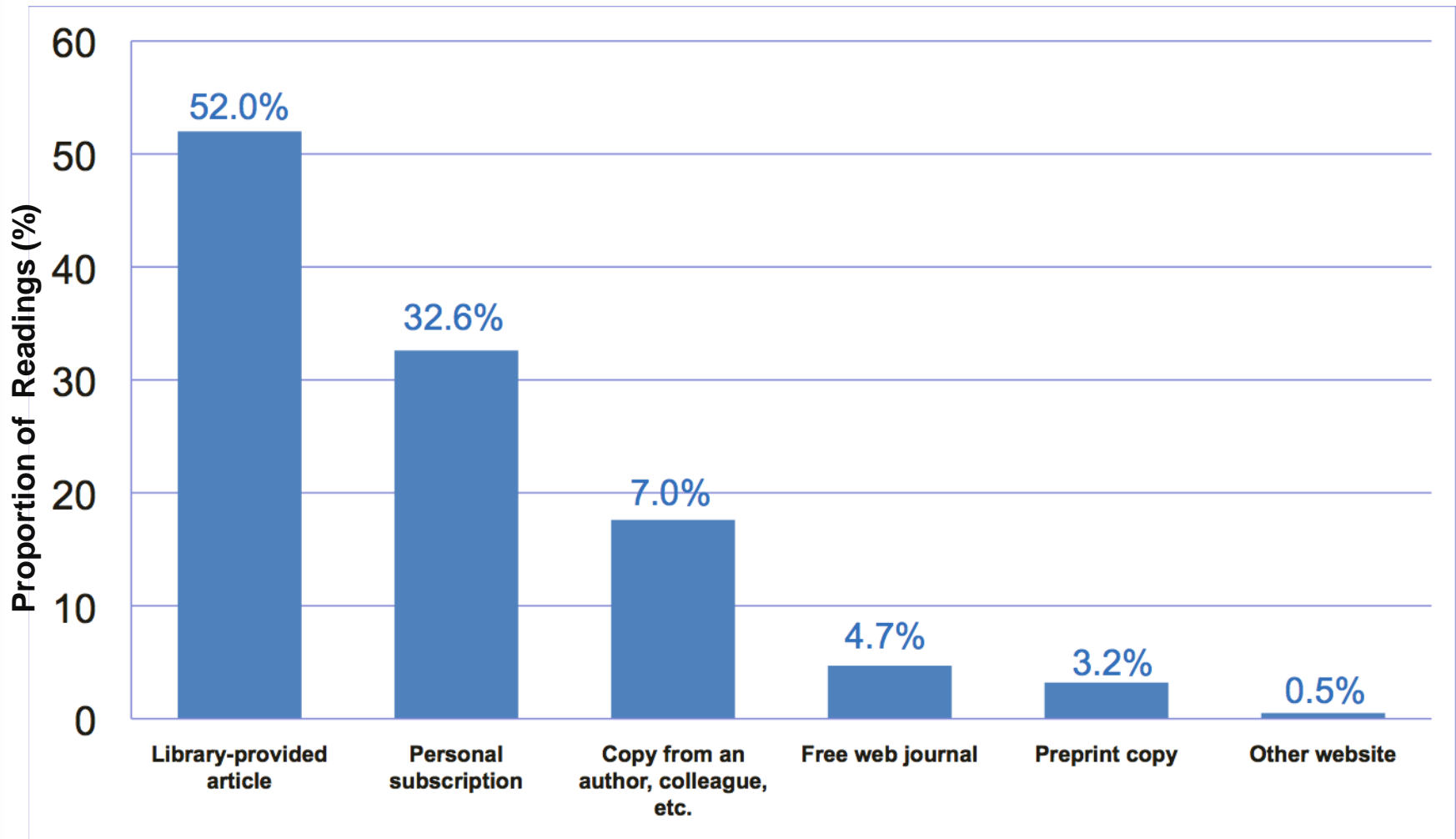


How faculty first became aware of information found in articles





Where articles are obtained





The Path To The Outcomes Or Value From Using The Library Journal Collections

- Purposes or reasons for reading articles (e.g., research, teaching, current awareness)



- Information seeking behavior (e.g, identifying articles, obtaining them, choosing the format)



- Article use (e.g., how much reading, time spent reading, age of articles read)

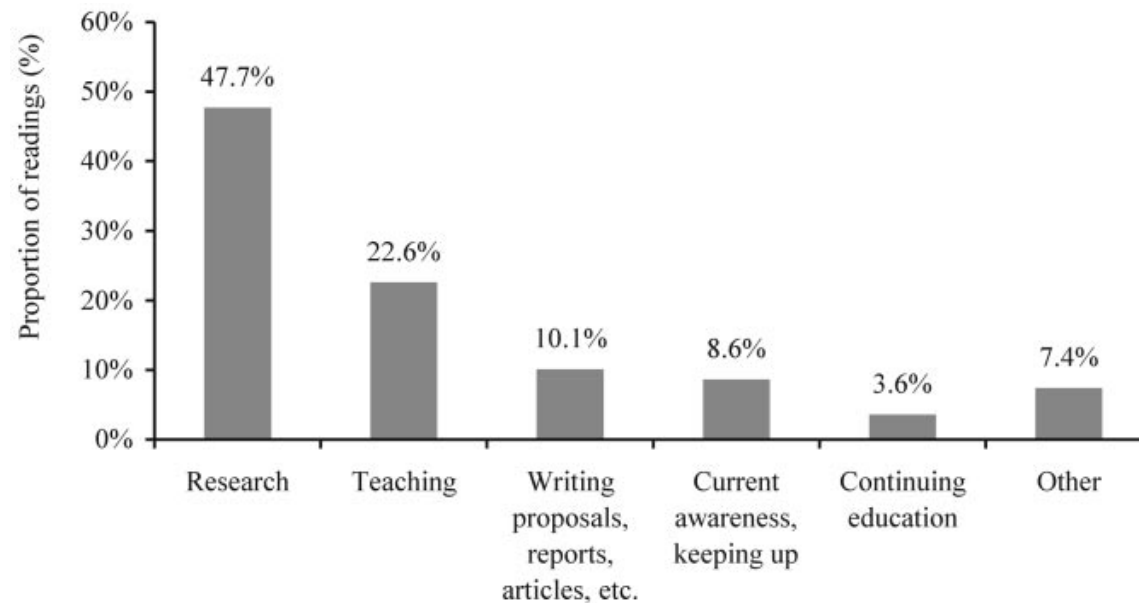


- Outcomes/value of reading (e.g., inspire new thinking/ideas, increased productivity, achievers read more, contingent valuation)



Return component of ROI

Principal purpose of reading the last article ($n = 1,062$)

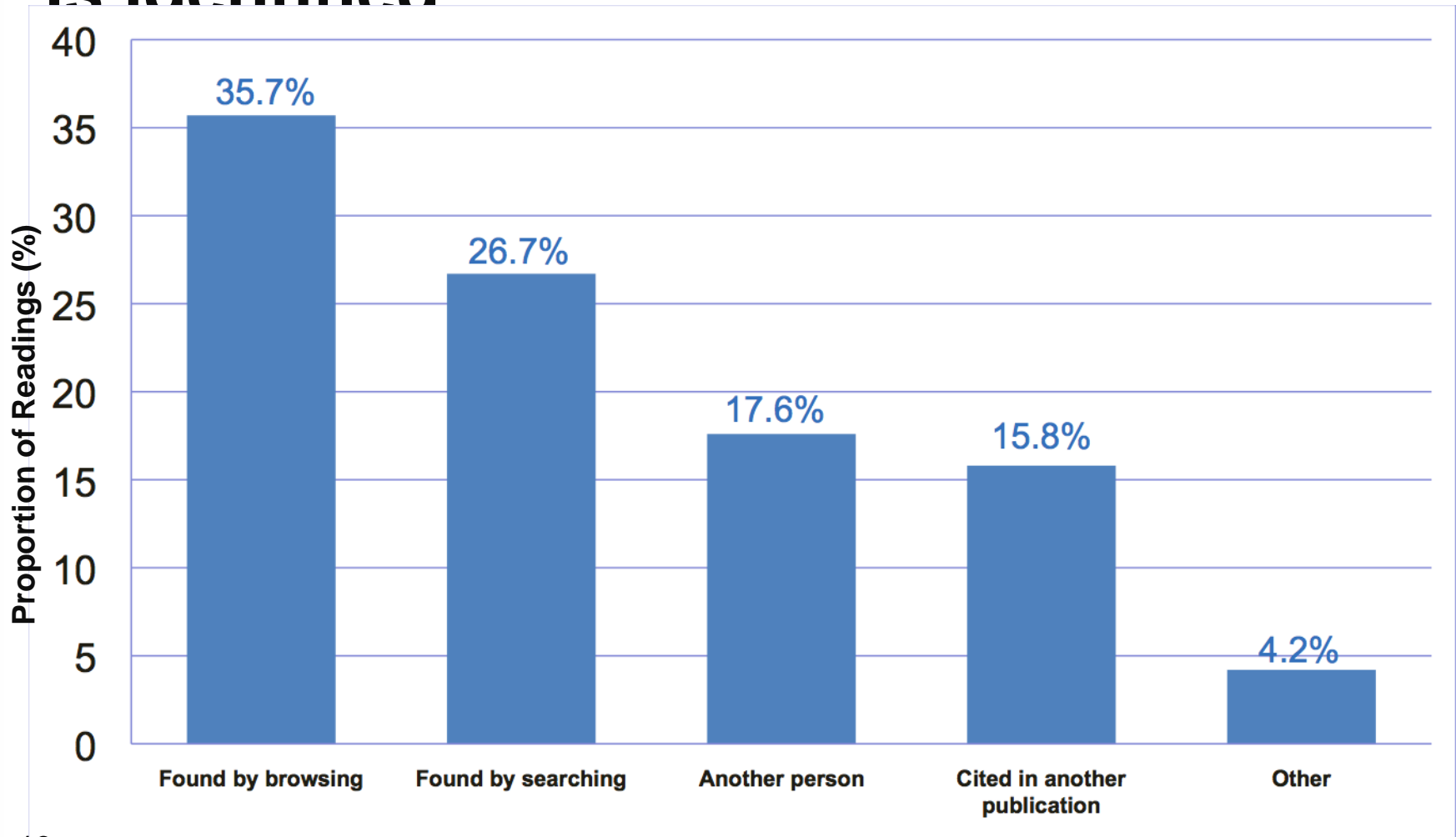




Researcher information seeking behavior involves...

- Choosing from among information sources
- Establishing ways in which journal information is identified
- Choosing online search sources
- Determining where to obtain articles
- Choosing a format of articles read

Ways in which journal information is identified





Format of articles read

Electronic (54%) Print (46%)

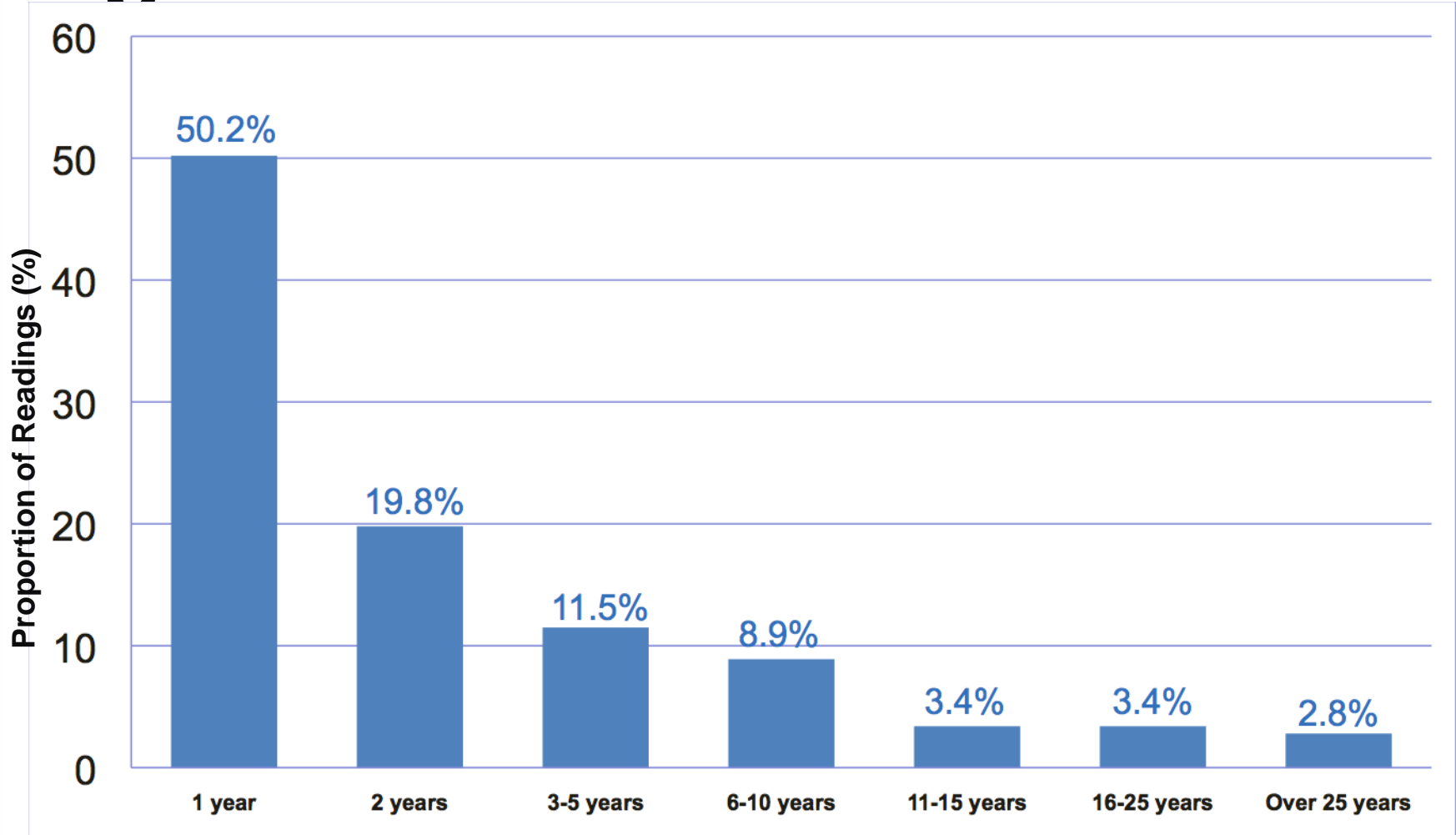
Personal subscription	9%	91%
Library	70%	30%
Other	95%	5%



Aspects of Article Use

- Amount of reading: 240 annual readings per faculty
- Time spent reading: 132 hours per faculty
- Age of articles read: 4.1 years old
- Leads to outcomes of reading/value

Age of articles read



Two types of value of articles

- **Purchase value:** what researchers are willing to pay for article content in their time and/or money
- **Use value:** the favorable outcomes derived from use of article content

Purchase value

- Average time spent per reading
 - 6.9 minutes per reading spent browsing
 - 5.3 minutes per reading spent searching
 - 33.1 minutes per reading
- Average about 148 hours per year
 - 10 hours spent browsing
 - 6 hours spent searching
 - 132 hours spent reading
- Unknown dollars spent on subscriptions, etc

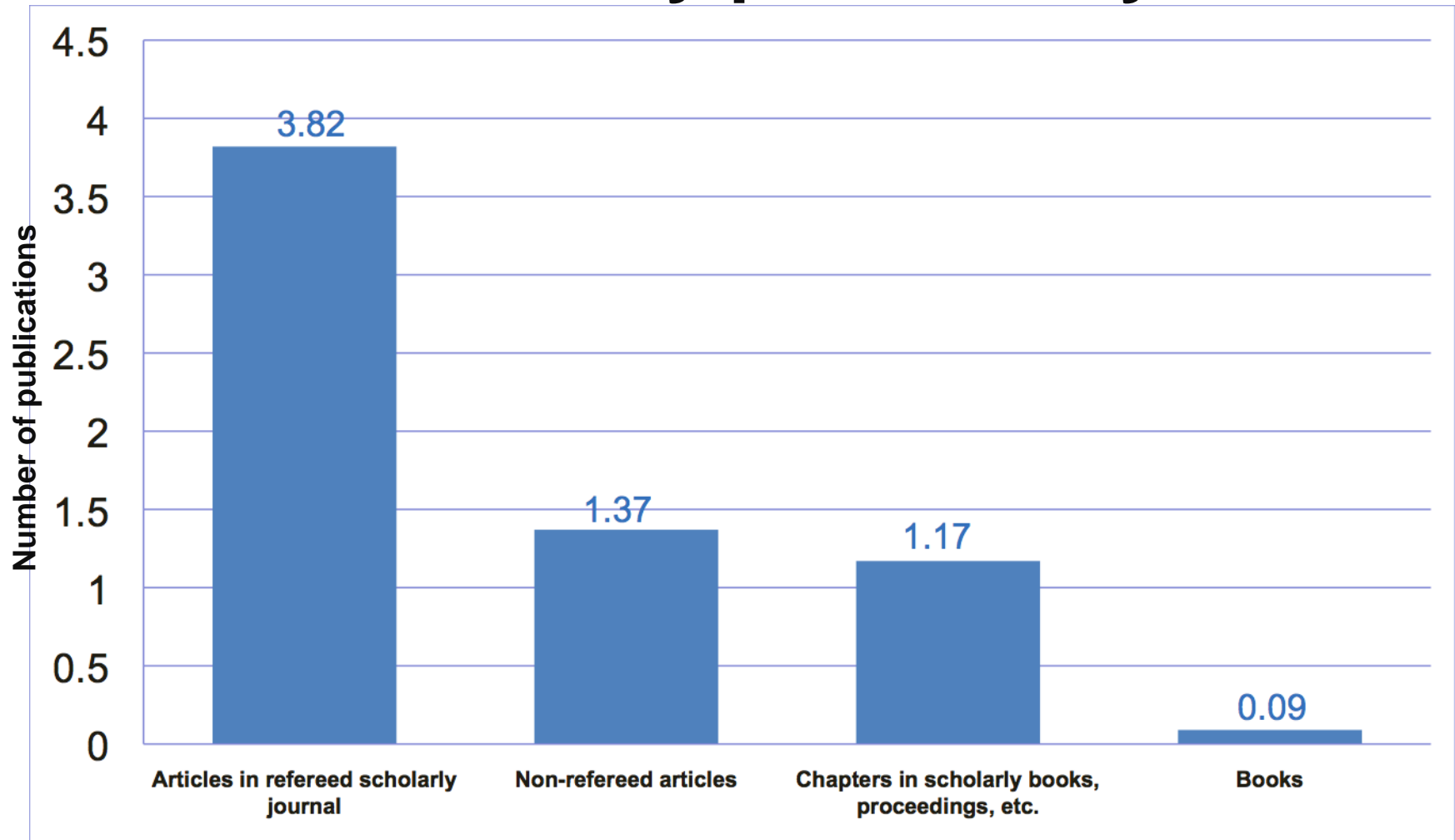
Use value of reading

(Faculty in US, n=880)

Inspired new thinking/ideas	(55%)
Improved results	(40%)
Changed focus	(27%)
Resolved technical problems	(12%)
Saved time	(12%)
Faster completion	(7%)
Collaboration	(6%)
Wasted my time	(<1%)

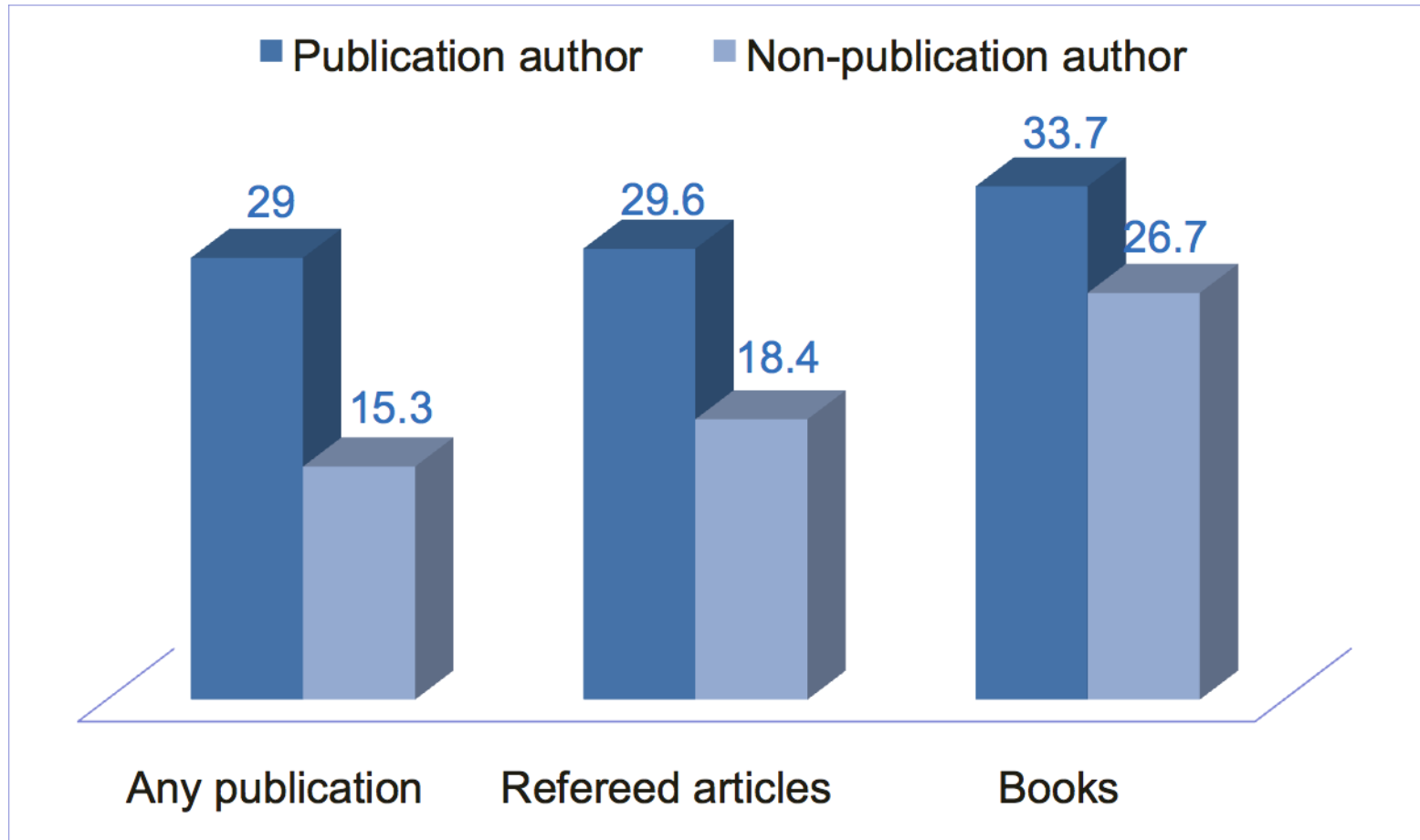


Indicator of faculty productivity





Faculty who publish more tend to read more per month (i.e., be more productive)





Achievers read more

- Number of readings: achievers (276 readings), non-achievers (222 readings)
- Hours spent reading: achievers (159 hours), non-achievers (119 hours)
- Time per reading: achievers (35 minutes), non-achievers (32 minutes)



Contingent Valuation

- Contingent valuation is an economic method used to assess the benefits of non-priced goods and services, by examining the implications of not having that product or service
- In this case the service is access to the library journal collection

Contingent Valuation Question

- Thinking back to the source of the last read article [here only library-provided articles], where would you obtain the information if that source [library collection] were not available?
 - (a) I would not bother getting the information.
 - (b) I would obtain the information from another source.

Please specify the source _____
- If (b) is checked:

In order to obtain the same information, if this source were not available, I would expect to spend _____ minutes of my time and/or \$ _____. (If the answer is zero, please enter “0” instead of leaving blank

Survey Results (University of Pittsburgh)

- 125 readings from library-provided articles
- Faculty indicated that they would look for another source for 99 of these readings
- They spend 3.0 hours per year searching, 3.4 hours browsing, and 6.4 hours in obtaining useful citations as well as, photocopying, downloading and printing articles (12.8 hours total)



Survey Results (University of Pittsburgh) (cont.)

- At an average of \$55 per hour in salaries and benefits, etc. the current cost to faculty is \$704 and it costs the university about \$65 per faculty in photocopying, downloading and printing (\$769 total)
- The cost of obtaining alternative sources of information is 59 hours in time (\$3,245) and \$990 in subscriptions, travel, communications, etc
- The net benefit is \$2,541 in time and \$925 in other costs or \$3,466 per faculty member

Return-on-Investment in Library Journal Collections

- Return:
 - Favorable outcomes
 - Saves faculty \$3,466 annually per faculty
- Investment:
 - \$283 per faculty cost to the library
 - \$704 per faculty in obtaining articles
 - \$65 in other university costs
 - \$1,052 per faculty total
- Return-on-Investment:
 - $\$3,466 \div \$1,052$
 - 3.3 to one



Advantage of the Critical Incident Method

- Typical question
 - Rate your satisfaction with online searches
 - Problem is that each search is different and this gets lost
- Allows one to combine answers through cross-analysis:
 - Can establish age of articles read from library versus personal subscription that are read for research or to keep up
 - Can establish time spent reading for research versus teaching from library versus personal subscription (thus providing indicators of value for library-provided readings)

Examples of Critical Incident of Library-Provided Articles

- Library-provided readings: 125
- Purpose of reading:
 - Research: 64.5%
 - Teaching: 47.2%
 - Current awareness: 37.8%
- Means of identification:
 - Browse: 37.6%
 - Search: 74.8%
 - Citation: 61.9%
- Time spent reading: 35.4 minutes vs. 30.4
- Age of articles read: 4.8 years vs. 3.0

An Example of Critical Incident Detailed Cross-Classification

- Total annual readings per faculty: 240
- Readings for research: 47.7% or 114
- Readings for research found by searching: 29.7% of 114 or 34
- Readings for research found by searching and obtained from the library: 76.9% of 34 or 26

Other Results of Readings for Research Found by Searching and obtained from the library

- Average age: 6.2 years vs. 4.0 for the rest
- Electronic format: 76.0% vs. 51.5%
- Time spent reading: 39.1 minutes vs. 32.4 minutes
- Use value examples:
 - Inspired new thinking: 59.3% vs. 54.7%
 - Improved result: 46.1% vs. 40.0%
 - Faster completion: 13.0% vs. 6.89
 - Contingent value: \$42 per reading vs. \$28
- ROI: 3.6 to one vs. 3.3 to one



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