

# Turn Your Idea into a Publication

an ALCTS Virtual Symposium • January 12, 2015  
Research Methodology -- Session 1. Part 2

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# Agenda for Today's Webinar

- Definition of methodology
- Types of research
- Types of methodology



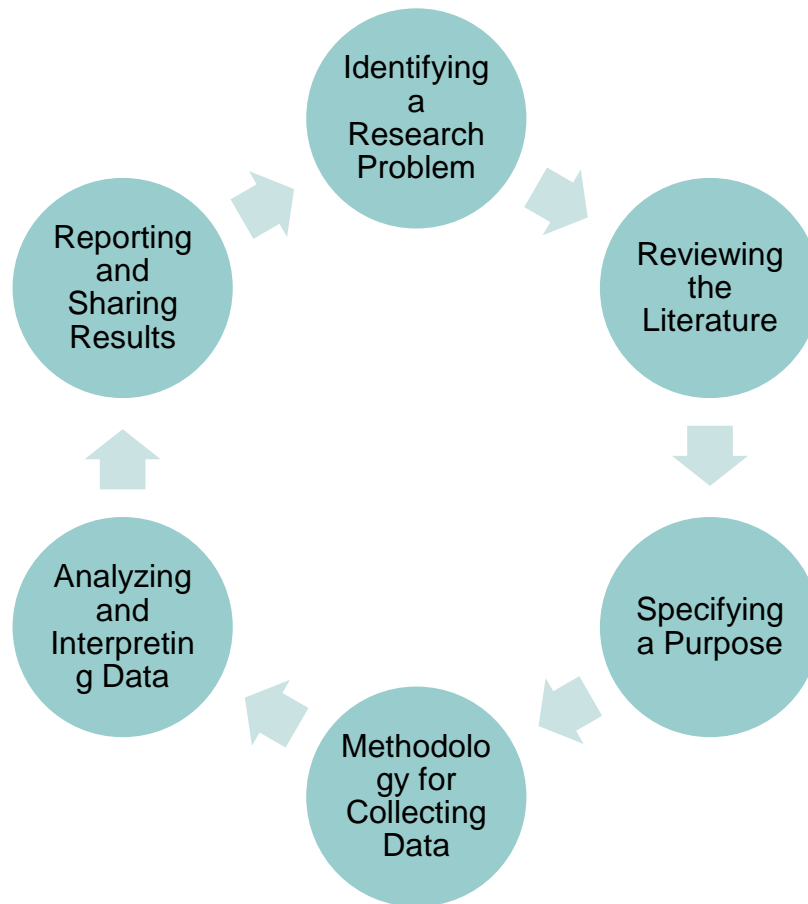


# Objectives

- Identify the appropriate research methodology
- Apply the methods that pertain to your research



# General Research Process



# Methodology



- “Methodology and methods, two terms are often treated as synonyms. Methodology is broader and envelops methods”
- Methods are a set of specific techniques for selecting topics, gathering and refining data, analyzing data and reporting on results.



# Types of Research

Quantitative	Qualitative
Asks specific, narrow questions	Asks broad, general questions
Collects data from participant's	Collects data consisting largely of words (text)
Analyzes numbers using statistics	Describes and analyzes of words for themes
Conducts the inquiry in unbiased, objective manner	Conducts inquiry in subjective, biased manner

# Research in Libraries



## Descriptive research

Examples: Case studies  
Survey-based research

## Analytical research

Examples: Reviews  
Bibliographic essays

## Conceptual research

Example: Think piece

# 1. Descriptive research - Case studies

- “---A form of qualitative descriptive research, the case study looks intensely at an individual or small participant pool, drawing conclusions only about that participant or group and only in that specific context. ....emphasis is placed on exploration and description.”



- Source: <http://writing.colostate.edu/guides/page.cfm?pageid=1285>



# Methodology of Case Studies

- Determine and define the research questions
- Select the cases and determine data gathering and analysis techniques
- Prepare to collect the data
- Collect data in the field
- Evaluate and analyze the data
- Report your findings





# Tips for Designing Case Studies

- Plan and design how you are going to address the study.
- Make sure that all collected data is relevant.
- Make sure that the study is focused and concise.
- Create a short list of 4 or 5 bullet points that you are going to address during the study.
- Researcher conducting the case study is more of an observer than an experimenter
- When you conduct a multi-subject case, each case must be treated individually and then cross-case conclusions can be drawn.



# Example of Case Studies

- Magda El-Sherbini and John Stalker. (1997). “[A Study of Cutter Numbers Adjustment at the Ohio State University Libraries.](#)” *Library Resources & Technical Services (LRTS)*. 40(4), 319-326.
- Magda El-Sherbini, (1995). “[Contract Cataloging: a Pilot Project for Outsourcing Slavic Books.](#)” *Cataloging and Classification Quarterly*. 20(3), 57-73.
- Magda El-Sherbini (with the assistance of Mary Harris) (1992). “[Cataloging Alternatives: an Investigation of Contract Cataloging, Cooperative Cataloging, and the Use of Temporary Help.](#)” *Cataloging and Classification Quarterly*. 15(4), 67-88.



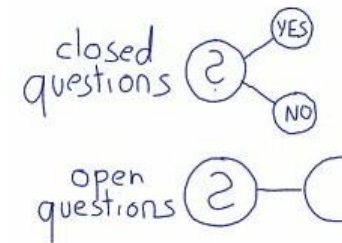
# 1. Descriptive research - Survey-based research

- **What is a survey and how it relates to a questionnaire**
- Survey research is a commonly used method of collecting information about a population of interest.
- There are three key features of survey research:
  - Questionnaires
  - Sampling
  - Interviews

# Questionnaire

## Types of Questionnaire

- Closed - Ended Questions
- Open - Ended Questions
- Likert - type scale



# Closed-Ended Questions



- Calls for a "yes" or "no" answer, short response, or item checking.
- Closed questions have the following characteristics:
  - They give you **facts**.
  - They are **easy** to answer.
  - They are **quick** to answer.
  - They keep control of the conversation with the **respondents**.
- They are preferred in survey research because of the ease of counting the frequency of each response and they are simple to interpret, tabulate, and summarize, but they limit the responses that participants can give.

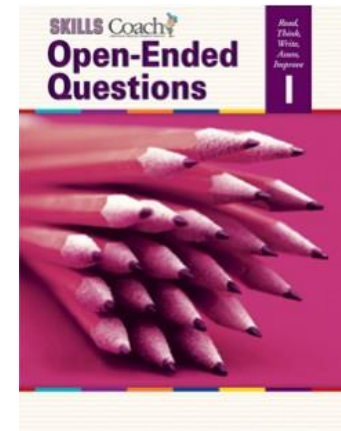


# Examples of Closed--Ended Questions

**Table 9. If you are Making Plans to Catalog your Un-Cataloged Collection, Which Methods are you Likely to Use to Catalog and Add these Collections to WorldCat?**

	Yes		No	
	<i>N</i>	%	<i>N</i>	%
Collection -level record	26	48	28	51.8
Short/brief record (e.g. “K” level record)	19	35	35	64.8
Full bibliographic records	41	75.5	13	24
Other specify	0	0	0	0

# Open--Ended Questions



- Allow for greater depth of response
- Open questions have the following characteristics:
  - They ask the respondent to **think** and reflect.
  - They will give you **opinions** and **feelings**.
  - They hand control of the conversation to the **respondent**.

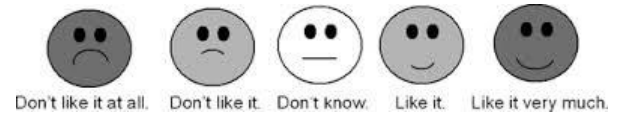




# Examples of Opened--Ended Questions

12. List your favorite ideas or suggestion to improve non-Roman subject access in library online catalog.

# Likert-type scale rating



- Respondents specify their level of satisfaction or dissatisfaction on a symmetric agree-disagree scale for a series of statements
- A useful question type when you want to get an overall measurement of a particular topic, opinion, or experience



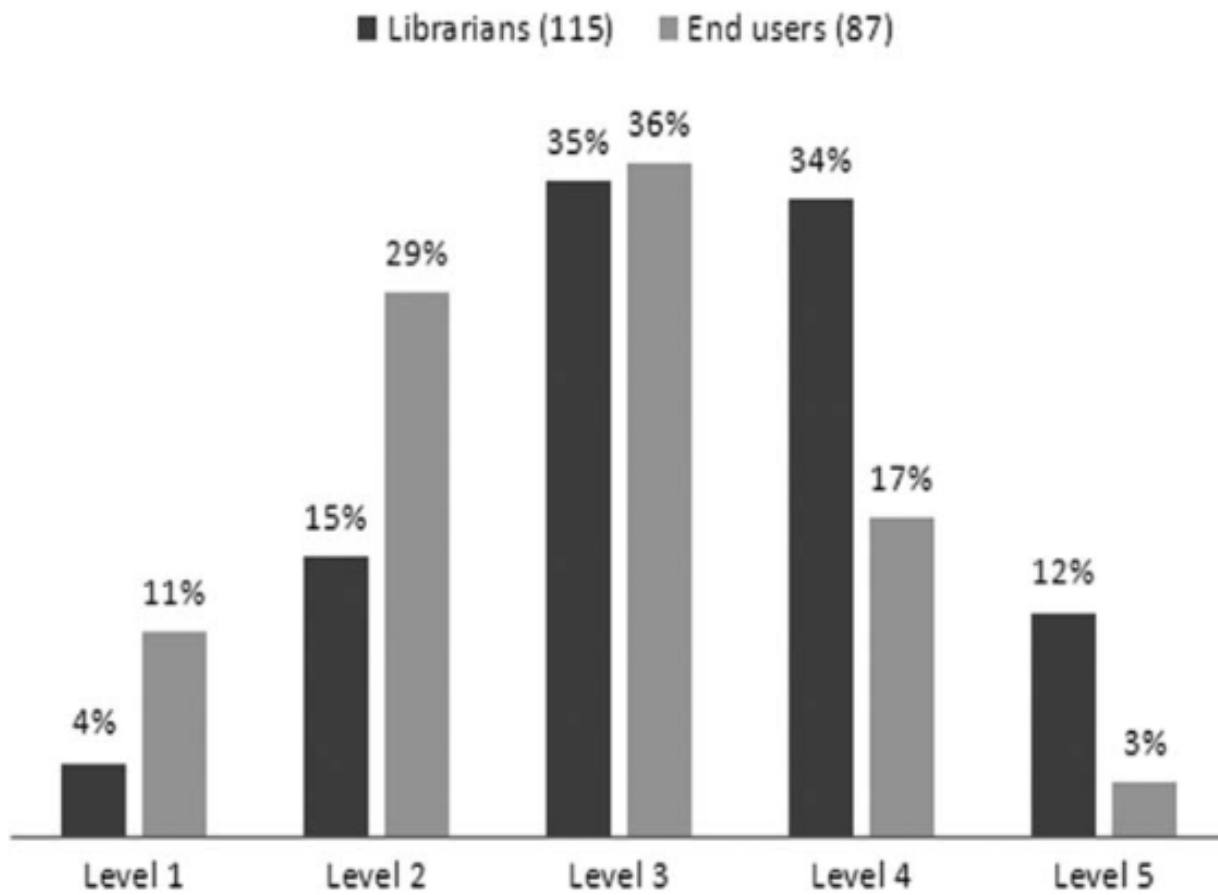
# Example of a Likert-Type Scale Rating

<b>Very Dissatisfied (1)</b>	<b>Dissatisfied (2)</b>	<b>Neither Satisfied nor Dissatisfied (3)</b>	<b>Satisfied (4)</b>	<b>Very Satisfied (5)</b>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

*Assessing Non-Roman Subject Access to the Library Online Catalog*

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6. Do you find that the presence of controlled English subject headings in bibliographic records helps you find and identify the non-Roman items you need? Least helpful **1 2 3 4 5** Most helpful



**FIGURE 2** Satisfaction with Controlled English Subjects (Level 5 = Most Satisfied; Level 1 = Least Satisfied).



# How to Present the Data in Text Format

Question 5 asked about general satisfaction with searching catalogs using controlled English-language subject headings. As Figure 2 illustrates, about one-third of both end users and librarians were moderately satisfied with this search method. At the two extremes of satisfaction, the two groups diverged. The higher satisfaction ratings were given by 46% of librarians but only by 20% of end users (combinations of Level 4 and 5). Similarly, 19% of librarians were very dissatisfied, as opposed to 40% of end users (combinations of Level 1 and 2). Overall, the librarians seemed more satisfied with their searching experience using English headings than did the end users.



# Some Factors Affecting the Percentage of Returned Questionnaires:

- Length of the questionnaire
- Complexity of the questions
- Importance of the study as determined by the potential respondents
- Respondent's belief that his/her responses are important
- Difficult to observe verbal and non-verbal behavior of the respondents.
- Quality and design of the questionnaire
- Timing



# Tips for a Good Questionnaire

- As short as possible
- Neatly organized
- Questions are clear
- Avoid using emotionally loaded or biased words and phrases
- Use clear and comprehensible terms, easily understandable by all educational levels
- Use correct spelling, grammar and punctuation
- Double-barreled questions, which ask two questions in one, should never be used in a survey.
- Clear instructions on how to complete the questionnaire
- Send your questionnaire out to a few friends for testing. This helps to locate unclear and vague terms
- Design it in an easy way for you to tabulate and interpret
- Send along your questionnaire a courteous, carefully constructed cover letter to explain the purpose of the study.

# Sampling

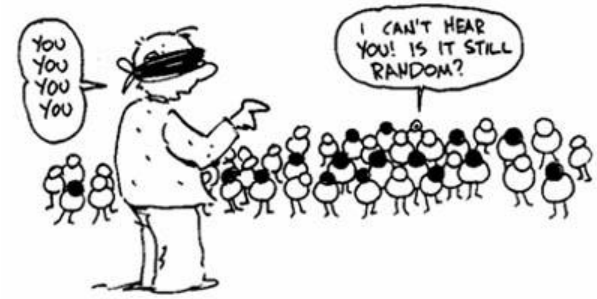
- Probability
  - Random sampling
  - Systematic sampling
  - Stratified sampling
- Non-probability
  - Convenience Sampling
  - Judgment sampling
  - Quota Sampling
  - Snowball sampling



○ <https://www.statpac.com/surveys/sampling.htm>



# Random Sample



- Survey Random Sample Calculator

“ Tool to help you determine how many people you need to survey or interview from a large population.”



### #1 - How many survey respondents do you need?

Specify your desired error level and population size below and click calculate. The numbers next to each confidence level indicate how many people need to complete your survey to achieve the specified error level.

How much error are you willing to tolerate?

If you are not sure, try somewhere between 3% and 6%

%

How many people are in your population?

e.g. total number of employees in the company

90% Confidence

95% Confidence

99% Confidence

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### #2 - How many people do you need to send the survey to?

How many people need to complete the survey?

From Calculator #1 above

What is your estimated response rate?

What % of people do you expect to complete the survey?

% (employee surveys usually get at least 70%)

Send the survey to  people

### #3 - How accurate are your survey results?

How many people are in your population?

e.g. total number of employees in the company

How many people completed your survey?

e.g. number of employees who completed the survey

Error Level

90% Confidence

95% Confidence

99% Confidence

# Example of a Random Sample

The sample size for the first two groups was determined using a random sample calculator for each of the groups [27]. The Ohio State University had 59,091 students and graduate students on campus. The random sample calculator suggested that 1,019 respondents were needed in order to obtain a 99 percent confidence. To gather the 1,019 respondents, the survey was sent to 2,038 undergraduate and graduate students. For the faculty and staff, the total on campus was 25,902, so 996 respondents were needed to gain a 99 percent confidence rating. To obtain the 996 respondents, the survey was sent to 1,192 faculty and staff. The authors over sampled for Group 1 and Group 2 in an attempt to ensure the confidence level. For the third group, the survey was sent to all library staff and faculty (342 members) via the library online listserv to determine if controlling or not controlling the series would affect their work and the way they serve patrons.



# Interviews



“An **interview** is a direct face-to-face attempt to obtain reliable and valid measures in the form of verbal responses from one or more respondents.”



# How to Structure an Interview

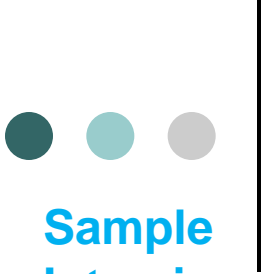


- Think about and carefully define the information you need.
- Ask directly for the information you're seeking.
- Make questions clear and unambiguous.
- Ask open-ended questions.
- Ask follow-up questions to get at what people are really saying, or to keep them talking about a topic.
- Don't cut people off too quickly.
- Confirm what you're told by checking with others to the extent that you can. Remember that you're getting people's perceptions, which aren't always the same as objective reality.

# Some Factors about an Interview

- Allows the interviewer to clarify questions.
- Allows the interviewers to observe verbal and non-verbal behavior of the respondents.
- Unstructured interview can yield data too difficult to quantify.





Sample  
Interview  
questions  
from  
“Cataloging  
Alternatives:  
An  
Investigation  
of Contract  
Cataloging,  
Cooperative  
Cataloging,  
and the Use  
of Temporary  
Help

Figure 1: List of Questions for Vendor Interview

Date:

Name of Vendor:

Contact person:

Telephone:

1. What kinds of services do you offer, i.e. original vs. copy-cataloging, languages, formats?
2. What level of cataloging do you provide?
3. We will have specific needs or standards in terms of our level of cataloging. How will you meet these needs?
4. Do you require the actual physical items to be sent to you, or may we send a surrogate, i.e. photocopy of the title page, etc.?
5. If you require the physical items to be sent, what carrier should be used for shipment? Who is responsible for insuring the items? Who takes responsibility for loss or damage?
6. What types of materials do you prefer not to handle, e.g. bound with, serials, etc.? Would you subcontract for such materials or would you handle them in-house?
7. We would like to gather as much information as possible. Is there someone else we should also speak with or contact?
8. We are considering contracting services to catalog two collections: modern Greek and modern Korean. Are there any differences in how you would handle these collections, i.e. Greek vs. Korean?
9. Do you have in-house catalogers who can handle these languages or would you need to subcontract for these languages?
10. For which access points do you do authority control, e.g. author, subject, series?
11. Have you provided cataloging services for any libraries/agencies in Ohio. If so, may we contact them?



# Analysis of the data resulted from the interview

	<i>Type of materials</i>	<i>Cataloging standards</i>	<i>Languages</i>	<i>Security; transportation; postage</i>	<i>Actual item vs. surrogate</i>	<i>Bibliographical Access</i>	<i>Apthio Records</i>
<b>A</b>	Books; Serials; AV; Manuscripts; Sound recordings; Scores; Computer files	AACR2; LC practice; Authority control; Names converted to AACR2; Full I-level unless the library wants K-level; Sport checking	Variety of Roman and non-Roman languages	Contract library pay shipping charge of the books to and from OCLC	T.P.; Actual item	OCLC/CIK	OCLC-MARC tape integrated with any records cat. on <i>OCLC</i> by the contracting library
<b>B</b>	Books; Serials; AV; Manuscripts; Sound recordings; Scores; Computer files Maps; Theses; Dissertations	National standards; I-level Authority control subcontracted to Blackwell North America	Western languages; Hebrew	Send backlog certified, library pay the expenses	T.P.; Order record; Others	OCLC	OCLC worksheets; Cards
<b>C</b>	Books; Non-books	AACR2; LCSH; Dewy Class; LCC	Chinese; Japanese; Korean; Russian; Hebrew; Vietnamese;	Use UPS and contract library pay the cost	T.P.; Colophon; actual piece; AV tapes	OCLC; Planning to use OCLC/CJK and RUN?CJK	Marc worksheets; MARC tape; Catalog cards
<b>D</b>	Books; Non-books; Don't like to deal with serials and AV	I-level; MARC formats; LC practice; AACR2; SuDoc; ANSCR; LC classification; LSCH LC names and subject authority	English; Spanish; Chinese; Arabic; Hebrew; Greek	Send package certified by UPS with an inventory list	Prefer actual item	OCLC	
<b>E</b>	Books; Serials; Audio cassette; Video cassette	I-level; MARC formats; LC practice; AACR2; LC classification; Dewey; ANSCR class for sound recordings	Korean	Send backlog lib pay the shipping	T.p.; verso L.p.; colophon; table of contents; last page no.; ill. Sometimes they need the actual	OCLC/CJK	MARC worksheets; MARC tape; Catalog cards



# Focus Groups



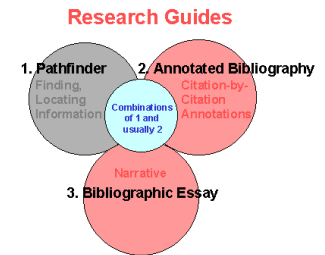
- Focus groups are group interviews that give the researcher the ability to **capture deeper** information more economically than **individual** interviews
- Allow for the study of interaction between participants
- May uncover WHY people think as they do



# Purpose of Conducting Focus Groups

- Finding out about an issue of importance from the target population
- Asking members of the target population what types of activities they would enjoy
- Collecting in-depth data on specific research questions to determine program success or progress

## 2. Analytical Research – Bibliographic Essay



- “a bibliographic essay introduces readers to a topic, and evaluates resources related to that topic. A good bibliographic essay is not a discussion of a topic as much it is an introduction to the best resources available that discuss a topic.”

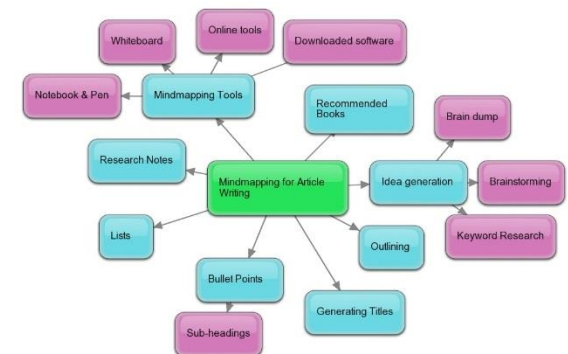
# Bibliographic Essay - Methodology

- Identify the topic
- Identify current trends in that area and create sub-topics
- Identify types of materials to be described and discussed (books, articles, databases, etc.)
- Determine the time span (5 years)
- Searching for your materials
- Organize your topics
- Write your essay



# Bibliographic Essay - Organizing

- Importance of introduction
- Organize materials by sub-topics (descriptive categories)
- Analyzing your materials by sub-topics
- Describe important points made in each article
- Write your essay for each sub-topic
- Put it all together
- Conclusion





# Examples of Bibliographic Essays

- Magda El-Sherbini, (1995). “Najib Mahfuz, Nobel Prize Winner: a Bibliographical Essay.” *Reference Services Review*. 23(2), 61-72.
- Magda El-Sherbini, (1990). “Terrorism: Current Readings.” *Reference Services Review*. 18(4), 49-63.
- Magda El-Sherbini, (1989). “Current Readings on the Iran-Iraq Conflict and its Effects on U.S. Foreign Relations and Policy.” *Reference Services Review*. 17(2), 27-39.

## 2. Analytical Research – Literature Reviews

- A literature review provides an overview of the scholarly writings published on a topic by accredited scholars and researchers.





# Purpose of Lit Reviews

- Describe the relationship of each work to the others under consideration
- Identify new ways to interpret prior research
- Shed light on any gaps in, previous research
- Identify areas of prior scholarship to prevent duplication of effort
- Point the way forward for further research





# Steps for Preparing Lit Reviews

- Define your topic
- Search for materials
- Evaluate what you have found
  - What are the author's credentials?
  - Persuasiveness
  - Value
- Analysis and interpretation



# Lit Review and Bibliographic Essay-- Comparison

## Lit Review

- Makes a case for **further** investigation and research
- Highlighting **gaps** in knowledge and asking questions that need to be answered for the betterment of the discipline
- Criticism is generally directed at the **value** of the work in answering a particular question rather than at its quality

## Bibliographic Essay

- Illustrates **what's available in a given field** , accompanied by a short description.
- While it may feature a critical component, the criticism is generally directed at the **quality** of the work, rather than at its value in answering a particular question or buttressing an argument.



# Example of Literature Review

- Magda El-Sherbini (2008). “Cataloging and Classification: Review of the Literature 2005-06.” *Library Resources & Technical Services*. 52(2), 148-163.

### 3. Think Piece Research

It is a piece of writing introducing new ideas or offering a challenge to existing assumptions.





# Steps for Writing a Think Piece

- Find a “what if” question
- Do your research
- Find the majority opinion, then adopt the exact opposite opinion
- Develop a unique writing style
- Come up with a crazy headline
- Be the first



# Examples of Think Piece

- Magda El-Sherbini and Amanda Wilson (2007). “[New Strategies for Delivering Library Resources to Users: Rethinking the Mechanisms in which Libraries are Processing and Delivering Bibliographic Records.](#)” *The Journal of Academic Librarianship*. 33(2), 228-242.
- Magda El-Sherbini. (2010). “[Sharing Cataloging Expertise: Options for Libraries to Share Their Skilled Catalogers with Other Libraries.](#)” In *Cataloging and Classification Quarterly: 21st Century Metadata Operations: Challenges, Opportunities, Directions: Special Issue*. Bradford Lee Eden, editor. 48(6-7), 525 – 540.



# Conclusion

- Proper methods will make your research fun and rewarding
- Don't let the methodology determine your research topic
- Methods are tools –use them and don't let them use you
- Learn the basic information about your issue
- Be persistent - there's no substitute for keeping at it
- Methodology is a vehicle for conducting research
- Use it properly so your research engine doesn't sputter



# References

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- Your Literature Review Plan  
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- **How to write a literature review** <http://library.concordia.ca/help/howto/litreview.php>
- A Think Piece on “Think Pieces” <http://www.docs-r-us.com/pdffiles/SG%20Piantanida%20.pdf>
- **How to Conduct Research: An Overview** <http://ctb.ku.edu/en/table-of-contents/advocacy/advocacy-research/overview/main>



# Thank you!

## Questions?

Website:

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