

Summer Training Program for Research in the Library for Undergraduates in Research Groups

By

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EXECUTIVE SUMMARY

Since 2006, undergraduates doing summer research with faculty in the departments I supported have had the opportunity to have training for "Research in Brown University Library." There was special focus on the core online resources of a discipline and the overall library services to use to retrieve and save discovered and found materials. For the summer of 2007 and subsequent summers the program was called THIRST which was the acronym for Tools to Help with Information Research in Science & Technology. As the years passed, I conducted vigorous marketing through direct emails to targeted faculty often reminding them of the student(s) who would benefit from such training. Yet the effort did not produce the hoped for attendance nor the response from the faculty to expect attendance. Only the administrators of the MRSEC summer research program in the Division of Engineering set expectations high for the summer students many of whom did not attend Brown. For 2006-2008, only chemistry, engineering, and physics sessions were offered. In 2009, computer science was offered as it was my newest subject assignment and MRSEC asked for two sessions – engineering and biomed engineering.

With the history of low interest after a major effort on my part to reach the community and the additional subject assignments of applied mathematics and geological sciences, I needed help promoting the 6 subject sessions. Therefore for the 2011 season, with the encouragement of the University Librarian, I began working directly with the office of Besenia Rodriguez, Associate Dean of the College, responsible for the summer UTRA program. I moved the sessions to the Science Center, 3rd floor of the Sciences Library, and arranged for the Library's laptops to be made available to participants. At the suggestion of the Dean, the workshop time was cut from 2 hr to 1.5 hr. Two subjects were covered every day from June 21-23, one in the morning and in the afternoon. The MRSEC students had a two hour session on June 9 as arranged with the coordinator. All participants were asked to bring a print copy of a seminal article provided or suggested by his/her research director. This was for hands-on practice. Despite the promotional effort of the Dean's office and my own, the response of the UTRAs to using training.brown.edu to register, completing in a timely fashion a pre-session self-assessment instrument (to inform me about general information literacy), and attending reinforced my previous experience. When students are not expected to do these things, they do not take them seriously.

If this program is to continue, the Associate Dean for Undergraduate Research, the Library's AUL for Research and Outreach, and I must work together to create a program that produces positive improvements regarding registration and attendance. In particular, where can the sessions be conducted so students have computers? We need to determine if the online self-assessment and post session evaluation are useful. A session evaluation online survey was not even given since 2009. This was because, in previous years, most attendees did not take the time to complete it despite my follow up emails. With low attendance combined with the typical percent done, any results would not be useful.

Overall this training will serve the students and their research directors. These are transferable skills. With the loss of the MRSEC program, UTRA students and students supported by faculty are the only pool to draw on for attendance. Without a program, enthusiastically promoted and mandated by the Dean's office, continuance of the sessions is not practical. If the program is to be renewed, consideration must be given to guidelines for minimum registration and attendance, a location of a computer lab with sufficient seats that can be booked for every class and is on the sciences side of the campus, and a helper for me during the session.

HISTORY OF THE TRAINING PROGRAM

A summary of the 2006-2010 summer THIRST sessions is shown in Appendix A including participant numbers.

In the June 2006, I offered workshops focused on discipline-based resources, scholarly communications, and library services. The target audiences were summer students doing research with a faculty member in Chemistry, Engineering, and Physics. Three separate 2-hour sessions were held for each group. All announcements and emails were sent by me. In June 2007 the program was named THIRST (Tools to Help with Information Research in Science and Technology) and offered through training.brown.edu for documenting registration and emailing registrants. Also, I sent emails to all faculty in the three departments announcing details of each session including registration. For 2008, lists of student names were obtained from the departments so the students as well as their research director received an email announcement and the students also got a reminder – all from me. In 2009, the computer science workshop was added. In 2010, all four subjects were offered.

All workshops were held in the Hecker Training Room, Rockefeller Library. Each was two hours long with a short powerpoint on scholarly communications and using the work of others ethically (copyright and citation management). The rest of the time was demos with hands-on exercises. The exercises evolved in 2010 so students were asked to bring a copy of a research paper from which to practice. Unfortunately, most attendees did not bring a paper. That step in preparing to come to the session was communicated with frequent reminders. Yet there was low response.

Each year, including 2006, there was a skill self-assessment before the session. This instrument has evolved to using SurveyMonkey. Unfortunately, responses for me to use in preparing for a session were not common. There was also a post-assessment 2006-2008 which was not continued 2009 and 2010. I decided this for two reasons: low response when there was moderately good attendance 2005-2008 and low attendance in 2009 and 2010 except students in engineering labs.

For 2008-2010, attendance at the engineering sessions was mandated by MRSEC – Research Experience for Undergraduates – coordinator (out of the Center for Advanced Materials Research). In 2009, at the request of the coordinator, the engineering sessions were two: engineering and biomed engineering. This was to accommodate students working in the groups of faculty specializing in biomedical engineering. In 2010, the groups were consolidated again. However, attendance was usually 90% of the students in the program. On the other hand, the students coming from contact through individual emails to faculty and students themselves became so low that the effort to arrange for the class, prepare the content, conduct the class in Hecker, and create email announcements and follow-ups and reminders to do the self-assessment had too low a ROI for the time I spent.

In May 2010, I began an email dialog with Associate Dean of Undergraduate Research, Besenia Rodriguez, about collaborating with UTRA (Undergraduate Teaching and Research Award) program and THIRST. I had hoped announcements of the workshops could be sent out to the UTRA students with the Dean's stamp-of-approval. I needed to make the contact much earlier in the year. However, it was too late. So I had to use direct email to the faculty. I also merged a list of summer research students from Associate Dean of the College David Targan with lists I solicited from some departments to use to assess the number of potential participants. The number far exceeded the low number that attended. Two sessions were even scheduled for Engineering students to accommodate for the conflict with BEARCORE (required ethics training).

THIRST 2011 Planning

On April 6, 2011, a meeting was held between Harriette Hemmasi (University Librarian), Dean Rodriguez, and me to revisit the collaboration. There was an agreement that the sessions would be 1 ½ hours, be held in the Science Center (if possible), and be on laptops provided by the Library and that the UTRA coordinator (Janice Rego) would send out announcements to the UTRAs with the Dean's signature. I would still create the content for a flyer for the announcement, cover letter wordsmithing, and registration for each workshop on training.brown.edu. I would also coordinate schedules with the Science Center and with the Library's Tech support.

With the help of Jodie Gill, Science Center Program Coordinator, I reserved a study room for June 21 and the Presentation Room Jun 22-23 for morning sessions from 10-11:30 AM and afternoon sessions 4-5:30 PM.

I worked with Joe Mancino, Technical Support, to schedule delivery of the Library's laptop cart to the ScienceCenter, for the students to use for hands on. Also I asked to have a Tech support member present at the beginning of each session to assure that the laptops worked and connected to the Library website. This was because they had to be returned to the cart at the end of every session for security.

Dean Rodriguez went on medical leave less than a week after the meeting. As a consequence, Dean David Targan, Associate Dean of the College and Science Center Director, approved the content I sent to Janice Rego.

I was contacted by Kim Cavanaugh coordinating the Engineering summer program for students, Brown and from outside Brown, working for Engineering faculty. We worked together to set up

a separate session for June 9 in the Barus& Holley computer lab. Of the 15 students, 6 were also UTRA.

I contacted Sarah Bordac to post a 2011 version of the self-assessment of information literacy skills on SurveyMonkey. I asked for minimum editing of the 2010 version. Sarah did the edits and provided the link that could be sent to the students.

For the chemistry session, I contacted Chemical Abstracts Service for training logins to the essential database for chemistry SciFinder. This was necessary because the subscription only permits 6 users at a time. Training logins can be requested for at least 15 students.

I created entries in training.brown.edu for each class to obtain login URLs to be on flyers and emails

Snacks were scheduled to be ordered but I forgot to make the order in time with Dining Services.

Public relations

Ben Tyler, of Digital Technologies department of the Library, was assigned to produce a flyer that the Dean's office could send out. I also handed them out at the first summer UTRA event on June 20th.

Janice Rego of the Dean's office sent out announcements, the text of which I wrote, under the signature of Dean David Targan. One announcement went out June 1 and a follow-up on June 17 with links to the training.brown.edu registration urls for each of the six sessions. In addition, there was a link to the SurveyMonkey for self-assessment with a request that this be completed by June 20.

I sent my own emails to all faculty members in each of my departments along with a customized Word document flyer.

Appendix B has examples of the promotional materials.

Program

The schedule of the workshops was the following:

June 9 – 10-12 for THIRST Session for Engineering Undergraduate Summer Program students, BH191.

June 21 – 10-11:30 AM THIRST Session for Applied Math Ugrads , Science Center, study room

June 21 – 4-5:30 PM THIRST Session for Computer Science Ugrads , Science Center, study room

June 22 – 10-11:30 AM THIRST Session for Physics Ugrads , Science Center, Presentation room

June 22 – 4-5:30 PM THIRST Session for Engineering Ugrads , Science Center, Presentation room

June 23 – 10-11:30 AM THIRST Session for Geological Sciences Ugrads , Science Center, Presentation room

June 23 – 4-5:30 PM THIRST Session for Chemistry Ugrads , Science Center, Presentation Room

The students who registered were asked to complete the self-assessment tool and provided with the link in more than one mailing. Appendix C is a PDF of the form that the students were asked to complete thoughtfully.

It was suggested to UTRA students in their emails that they could bring their own laptops but most did not. The Library laptops were set up on the tables in the study room on June 21 and Presentation Room June 22 and 23 and checked by the Tech Support staff. There were never more students than working laptops.

Each subject had a customized website from the course guide template- THIRST for Ugrads:

THIRST for Applied Mathematics Ugrads (new 2011)

<http://library.brown.edu/gateway/lrg.php?id=687&task=home>

THIRST for Chemistry Ugrads (new 2007, updated 2011)

<http://library.brown.edu/gateway/lrg.php?id=404&task=home>

THIRST for Computer Science Ugrads (new 2009; updated)

<http://library.brown.edu/gateway/lrg.php?id=601&task=home>

THIRST for Engineering Ugrads (new 2007, updated 2011)

<http://library.brown.edu/gateway/lrg.php?id=403&task=home>

THIRST for Geological Sciences Ugrads (new 2011)

<http://library.brown.edu/gateway/lrg.php?id=689&task=home>

THIRST for Physics Ugrads (new 2007, updated 2011)

<http://library.brown.edu/gateway/lrg.php?id=402&task=home>

Barbara Schultz, concerned with security of the laptops, did not approve of leaving the cart in a locked room of the Science Center between sessions or overnight. There were no cameras in the Science Center to monitor the cart. Part of the program was for me to transport the laptops in the cart (very heavy) to the Friedman Center workroom at the beginning and end of each day and between the morning and afternoon sessions.

For each group, I gave a common presentation concerning the agenda and goals at the beginning. I introduced myself as their personal librarian. I gave a mini-tour to each group of its customized website. Within the discipline-specific content, I emphasized how to get books and articles in the library (services including Josiah and FindIt) and not at Brown (EasyBorrow, FindIt, ILLiad document delivery for journal articles). I introduced core databases for articles for the discipline of their faculty advisor and gave a brief demonstration. I also demonstrated Web of Science, the core multidisciplinary database for the sciences. At the beginning of the class, I checked to see if each had brought the requested article for practice. I recall that most did. However, I did not have the opportunity to record this information. I had too many other goals to accomplish. I also was not able to observe how students were using the laptops or searching the databases using the article.

OUTCOMES

Appendix D summarizes the participation levels for the students expected to attend his/her discipline-based session. Counting the Engineering summer students and UTRA's on the list Janice Rego gave me May 13, there were a potential 88 students who were asked to register. The Engineering session was well attended 12 out of 15. Unfortunately, the three that did not attend were Engineering UTRAs.

The UTRAs response overall to registration, timely completion of the self-assessment, and attendance was disappointing. In summary, of the 73 potential registrants who received email notifications from the Dean's office, 34 registered with training.brown.edu, and 27 attended. Some of those participants came late or left early.

CONCLUSIONS

While the relationship with the Science Center was important, the difficulty in providing functioning laptops to the students and the amount of work on my part to do this because of security restrictions leads to the conclusion that this will not work. Hecker with at best 10 functioning computers and a security door is not an alternative. A computer lab, for example in CIT, is needed. It is unlikely that students can be required to use their own laptop at the Science Center space.

The work in preparing for each subject requires significant amount of my time spent that attendance of less than 5 students is no longer feasible. If by the end of registration deadline, at least 5 students have not registered for a session, it will be cancelled. If less than five attend, I will set up appointments for one-on-one training and dismiss the group.

If the self-assessment form is to work, students must respond to an early deadline. One day before the start is not enough for me to use the results.

RECOMMENDATIONS FOR 2012

- Higher expectations by the Dean's office for the UTRA students and the other students doing summer research in my subjects.
- Coordination with the Dean's office so students who have already taken THIRST in a previous summer are excused from attending and do not complete registration or the self-assessment.
- A computer lab that has 20 or more computers with an instructor's computer station is essential and the site should be used for all the sessions. It should be on the side of the campus for the physical sciences departments. Coordinating the space needs should preferably be done and followed up by an admin in the Dean's office..
- A student who misses the assigned session will be expected to schedule one-on-one training with me.
- Two hours per class are essential. Otherwise, the information I provide is rushed and there is little time for practice.
- The schedule of two sessions a day was physically and mentally exhausting; one a day June 18-22 and June 25.
- The self-assessment tool will be moved to Google forms. This will avoid the problem with students who are not recognized by training.brown.edu.

- If a post session evaluation is to be administered, time is needed to let the students use the tools. However, without strong incentives to complete the evaluation, useful information may not be obtained. Also, the form needs to be received by participants two weeks before they present their work in written or oral venues or at the summer poster session.
- A second person is needed to help with student searches using the article that s/he brings and to monitor and record how the computers are being used during my demos. In other words, is hands-on really working? I need to focus on the presentation and the audience reaction to it.
- If food is to be provided, the computer space may have a conflict. Also, workshop time will be reduced for getting the food and eating it. A longer time would be needed so that I have 2 hours to meet goals.

Appendix A
Summary of 2006 to 2010 Training Programs

Course Name	Date	Participants
Discovering STM Information: A Workshop for Researchers	7-Jun-06	13
Discovering STM Information: A Workshop for Researchers	8-Jun-06	4
Discovering STM Information: A Workshop for Researchers	29-Jun-06	5
THIRST for Physics Ugrads	12-Jun-07	4
THIRST for Engineering Ugrads	13-Jun-07	6
THIRST for Chemistry Ugrads	14-Jun-07	9
THIRST for Physics Ugrads	10-Jun-08	5
THIRST for Engineering Ugrads	11-Jun-08	6
THIRST for Chemistry Ugrads	12-Jun-08	6
THIRST for Physics Ugrads	23-Jun-09	4
THIRST for Eng Ugrads	24-Jun-09	11
THIRST for Chem Ugrads	25-Jun-09	3
THIRST for CS Ugrads	26-Jun-09	0
THIRST for BioMed Eng Ugrads	29-Jun-09	7

THIRST for Physics Ugrads	21-Jun-10	1
THIRST for Engineering Ugrads	22-Jun-10	2
THIRST for Chem Ugrads	23-Jun-10	4
THIRST for Engineering Ugrads	24-Jun-10	12
THIRST for CS Ugrads	25-Jun-10	0

Appendix B

Separate Attachment color flyer

Separate Attachment Word flyer example

Cover letter to faculty -

Have you ever wished that the undergraduates doing research in your group had better literature research skills? Do you feel called to train your undergraduate researchers in the literature of your discipline?

This summer I am offering your undergrads an opportunity to explore the scholarly resources of the discipline in a 1.5 hour hands-on workshop at the ScienceCenter.

Attending the session will enrich the student's experience with scholarly information for this summer and in the future. The content is intended to point not only to useful resources, which the University Library provides, but also to services that will quickly deliver what is not in the Library's collection. The student will learn about time-saving reference/citation management tools to use this summer and in the future. S/he will grow as a savvy information finder and user with transferable skills. S/he will elevate her/his understanding of the ethical use of the work of others.

The two attachments provide the details. I ask you to give them to students not already on UTRA funding out of the Dean of the College. For your other students, I ask that they read the attachments carefully, meet deadlines, and bring a paper copy of an important article or dissertation/thesis very relevant to his/her summer research, perhaps provided by you or discovered by him/her. This document with its technical content and bibliography will be the architecture for extensive hands-on practice with the discipline-based resources.

I would be delighted to answer any questions you might have. By the way, the UTRA's are being contacted about the session through the UTRA office.

Appendix C

11 THIRST self-assessment form

Separate attachment PDF of self-assessment instrument on SurveyMonkey.

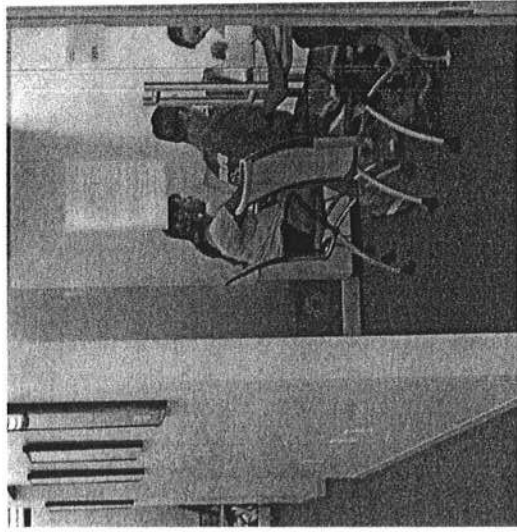
Appendix D

Summary of 2011 THIRST Participation especially UTRAs

Separate attachment table



BROWN UNIVERSITY LIBRARY



Tools to Help with Information Research in Science & Technology

Empower yourself to use the scholarly literature and resources of the discipline of your summer research and your research adviser!

Undergraduates, attend one of the following 1½ hour hands-on THIRST workshops at the Science Center. Register at training.brown.edu at the relevant URL. Bringing your laptop? Please indicate in "Note to Instructor" or a Windows laptop will be provided.

THIRST WORKSHOPS:

Tuesday, June 21:

Applied Mathematics, 10:00–11:30

<http://training.brown.edu/index.php?eventID=5772>

Computer Science, 4:00–5:30

<http://training.brown.edu/index.php?eventID=5773>

Wednesday, June 22:

Physics, 10:00–11:30

<http://training.brown.edu/index.php?eventID=5774>

Engineering, 4:00–5:30

<http://training.brown.edu/index.php?eventID=5775>

Thursday, June 23:

Geological Sciences, 10:00–11:30

<http://training.brown.edu/index.php?eventID=5776>

Chemistry, 4:00–5:30

<http://training.brown.edu/index.php?eventID=5777>

Please complete registration by June 17, 2011 and submit online self-assessment by June 20, 2011.

Trouble registering or have questions? Contact Lee_Pedersen@brown.edu (Physical Sciences Librarian) as soon as possible.

ANNOUNCING WORKSHOP

FOR UNDERGRADUATE APPLIED MATHEMATICS INFORMATION LITERACY

WHO: Any undergraduate not UTRA in your research group this summer

WHEN: June 21 (Tuesday) 10-11:30 AM

WHERE: ScienceCenter main room

REGISTER: <http://training.brown.edu/index.php?eventID=5772> by June 17th. If registration is blocked, email contact below by the same date.

REQUIRED: Thoughtfully complete all of the questions on the self-assessment tool at <http://www.surveymonkey.com/s/MLLH5TH>. This must be done by 5 PM June 20th when the tool closes.

REQUIRED: Bring paper copy of published article or dissertation/thesis related to summer research; this is essential for hands-on work.

OPTIONAL: Bringing own laptop put in "Note to Instructor" in registration form; otherwise a PC laptop will be provided and a flash drive is recommended to save work.

CONTACT: Lee_Pedersen@brown.edu, Physical Sciences Librarian.

THIRST (Summer 2011)

Exit this survey >>

	25%
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Tools to Help with Information Research in Science and Technology

* 1. Name:

* 2. Email:

* 3. THIRST Session (based on Dept of Research Advisor):

Applied Mathematics

Chemistry

Computer Science

Engineering

Geological Sciences

Physics

* 4. Research Advisor(s):

* 5. Research project you will be working on this summer:

6. How many semesters/terms of undergraduate study have you completed?

1 or 2
semesters/terms3 or 4
semesters/terms5 or 6
semesters/terms

7+ semesters/terms

7. Please indicate which of the following types of library instruction you have had in college or university (if any):

Yes

No

Library presentation/lecture

Hands-on library training/workshop

Library online training

None

Something else (please specify)

THIRST (Summer 2011) Survey

<http://www.surveymonkey.com/s/MLLH5T1>

Next >>

THIRST (Summer 2011)

[Exit this survey >>](#)



8. Rate your library research skills in terms of being able to:

1 (poor) 2 3 4 5
(excellent)

Find articles you need on a topic

Find books you need on a topic

Search effectively (you find what you need)

Identify relevant and related search keywords/concepts

Create and refine a search strategy for each resource/database

Identify the best items from search results

Differentiate between scholarly and non-scholarly publications

Verify the quality of the resources you find

Cite resources

Keep track of resources/information

9. Typically a library's online catalog contains:

A. Citation information about books, videos, and other print and non-print items acquired by the library

B. Citation information about journals and magazines (print and non-print) acquired by the library

C. Keyword-searchable full-text articles in online journals and magazines

D. Answers A and B

E. Answers A and C

F. Answers A, B, and C

10. Have you used any of the following citation/bibliographic software to create a database of references for a research paper?

Yes

No

2collab

BibMe

Bibus

BibTex (related: Bebop, BibDesk, JabRef, Referencer)

Cite-U-Like

Easybib

Yes

No

EndNote

Mendeley

Ottobib

RefWorks

Sente

Wikindx

Zotero

Other (please specify)

<< Prev

Next >>

THIRST (Summer 2011)

Exit this survey >>

75%



Searching: Academic Search Premier | Choose Databases >

Search Create Alert Clear ?

▼ Search Options | Basic Search | Advanced Search | Visual Search | Search History/Alerts | Preferences >

brown university library 

Search Options
Reset

Search modes ?

☒ Boolean/Phrase

☐ Find all my search terms

☐ Find any of my search terms

☐ SmartText Searching [Hint](#)

Apply related words ☐

Also search within the full text of the articles ☐

Link your results

Full Text ☐

Scholarly (Peer Reviewed) Journals ☐

Publication

References Available ☐

Published Date from **Month** **Year** **to** **Month** **Year**

Publication Type

11. You are at your home computer and have just connected to an online periodical database to find articles for a research assignment due by the next class. The image of the screen above is what you see when you connect. This database is new to you. You've done a basic search and an advanced search and gotten no relevant results. What are you most likely to try first?

Try another database

Email the EBSCO Host company for assistance

Try other keywords

Click Help link

Contact the library

Ask a peer

Other (please specify)

<< Prev

Next >>

THIRST (Summer 2011)

Exit this survey >>



12. Which of the following strategies are you most likely to use when trying to confirm the quality of information from a website (not hosted by a scholarly journal publisher)?

Yes No Not Sure

Check the Web page author/contributor's qualifications

Research other sources for the same information

Find out which institution is hosting the website

Access the items in the references/bibliography

Determine how current the information is

Other (please specify)

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13. Which of the following are valid reasons to cite the sources you used for a research paper?

- A. Readers of your paper may want to find and read the sources you cite.
- B. U.S. Copyright law states that research papers must contain such a list.
- C. You could be accused of plagiarism if you don't cite your sources properly.
- D. Answers A, B, and C
- E. Answers A and C.

14. You want to use some of the information found in a book, periodical, website, video etc. for your research project. Which situation(s) require that you cite the source of your information?

- A. When you copy a whole paragraph.
- B. When you paraphrase a main point in your own words.
- C. When you quote a sentence from the article.
- D. Answers A, B, and C
- E. Answers A and C

15. Copyright protection covers works:

- A. As long as the author or creator is still alive.
- B. Only if an explicit copyright notice (©, or Copyright by...) is displayed.
- C. That represent an original idea, in any format (e.g. text, music, drawing, video, website).
- D. Only if they have been published.
- E. Answers A and B

F. Answers A and B and C

16. You need to cite when:

Yes No Not Sure

Copying an image from Google images and using it an assignment

Copy/paste text from an online source and use it in your work

17. Which strategies do you use to narrow the results from a basic search of a database?

Yes No Not Sure

The word AND

The word OR

" - quotation marks around a phrase

Specific fields such as Title, Author, Date, etc.

Search terms provided by the database tool

History search

18. When using Google.com for scholarly research,

I use just a few terms and work with the results

I use just a few terms and then refine the search as I go

I use all the key concepts and then broaden the search as I go

I don't use Google for scholarly research

<< Prev

Done >>