

# Usability Testing - Find Articles

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Zanhow Library – Saginaw Valley State University

## ABSTRACT

Over the course of several weeks, 6 individuals participated in usability testing of the Zanhow Library's Find Articles section. Enclosed in this document are the results of the tests and our recommendations.

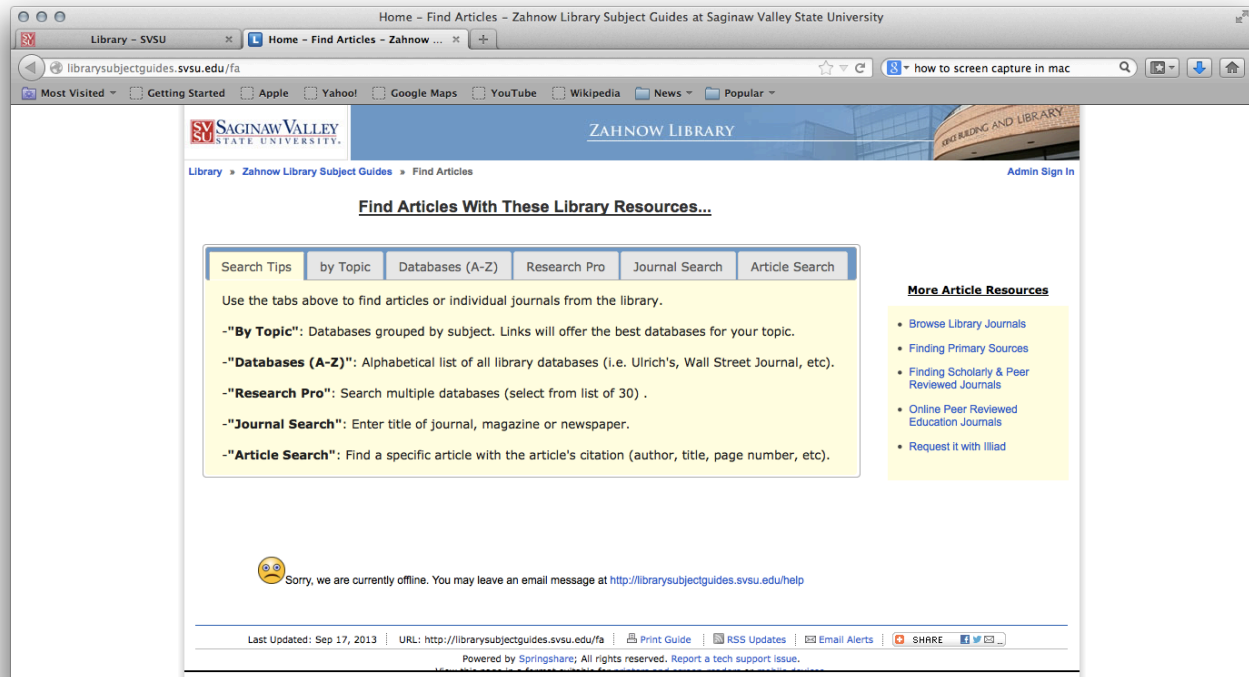
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# Introduction

## Background

The Zahnnow Library at Saginaw Valley State University provides several services to students and faculty to aid them in their research. The Zahnnow Library feels that the system for finding articles has room for improvement.



## Background

Between October 23, 2013 and October 30, 2013, six individuals participated in the usability testing of the Find Articles section of the Zahnnow's Library website. The participants were all freshman that had all recently gone through the Zahnnow Library's workshop through the First Year English Program, and have used the library's resources for research in the past. The specific criteria are outlined in *Appendix A: Screener and profile spreadsheet*.

Participants were asked to complete three tasks and explain what they were doing and thinking as they went along. Each individual testing session lasted approximately 20 minutes. Research in website usability has shown that testing a small number of users is the most cost-effective approach. The first users will be able to identify the major issues and subsequent user comments become redundant.

## Primary Research Objectives

- Locating journal articles by subject
- Locating journal articles by title
- Locating journal articles by citation

## Secondary Research Objectives

- Browsing journals
- Using Interlibrary Loan Services
- Finding scholarly and peer reviewed journals

## Usability Testing Tasks and Scenario

A series of tasks was created based upon the site objectives. The primary tasks included:

- Searching for an article based on a topic
- Searching for an article based on a title
- Searching for an article based on a citation, request it from ILLiad if SVSU doesn't have access to it

The participants were tested on-site using the Find Articles sub-section on the Zahnow Library's website from an iMac in the usability lab while recording users' actions and reactions with Silverback. Only the test administrator was working with the participants, and the users' actions were analyzed at a later time.

This document contains the participant feedback, task completion rates, time-on-task, errors, and recommendations for improvements. A copy of the scenarios is included in the Appendix.

## Executive Summary

This report describes the task-based usability testing performed for the Find Articles sub-section of the Zahnow Library's web site. The primary goals were to determine how effectively first year students were able to find articles from a title, subject, or citation. Included is the time for completion for all of the tasks to be compared with a new round of testing after changes have been made.

In general, all participants found it easy to find an article if the Zahnow Library had access to it. If it was an article that didn't explicitly tell them that they searched correctly and that the document could be found at another library, they would automatically assume that they did something wrong.

The test identified a few problems including:

- Students do not read the tab descriptions
- Students do not look at the sidebar
- Students stick with the databases that they know

## Overall Findings

Overall, we have determined that students are able to find articles but they tend to use the methods that they are most comfortable with. The results from this round of testing shows:

### Search Tips

Generally, the participants did not take the time to read the search tips. They found that it was hard to find what they were searching for in the descriptions, and they were further thrown off by the lack of clickability by the bolded text and the text cursor on the tabs themselves.

### By Topic

Participants had trouble deciding which topic they needed for their database. Even after selecting a topic, they elected to use ProQuest, which is a database that they are familiar with from their workshop training.

### Databases (A-Z)

This tab was not utilized very often, the participants seem to only want to go to the databases that they had used prior to testing and were hesitant to go to a non-familiar database.

### Research Pro

Only two participants attempted this tab and both neglected to check any boxes for their query and as a result didn't get any results. Participant 1 realized that she needed to select boxes and was able to get results eventually.

### Journal Search

None of the participants used this.

### Article Search

All six of the participants used this tab for the third task. The problem is when they do not get any results, they feel like they did something wrong and try to fix what they did. One participant said "I probably did something wrong to be honest". If the article isn't found, the results page does not give them any feedback if the article does not exist as they searched, or if it just is not in any collection owned by the Zahn Library.

### ILLiad Request Form

The participants felt that the form was too long, and if they got to this point then they would just find another resource that they had access to.

### More Article Resources Sidebar

Only one of them used the sidebar, and another participant remarked "most of the time, sidebars are full of ads and irrelevant links. So, I just dismissed them."

### Databases

It was a common remark among the participants that they were unfamiliar with find articles and would normally just use the databases link in the sidebar. The database link appears to be redundant to the Database (A-Z) and by Topic tabs in find articles, but the participants felt more comfortable in the databases section.

## Results

Four of the participants successfully completed Task 1 (Find an article by subject). Five of the participants were able to complete Task 2 (Find an article by title). And, five of the participants were able to complete Task 3 (locate an article by citation, and request it from ILLiad). While all participants were able to find the articles, it's only successful if they went through the find articles sub-section the correct way.

### Criteria For Success

#### Task 1

By Topic  
Research Pro

#### Task 2

Databases (A-Z)

#### Task 3

Article Search

Table 1. Task Completion Rates

Participant	Task 1	Task 2	Task 3
1	√	√	√

2	-	-	√
3	-	√	√
4	√	√	√
5	√	√	√
6	√	√	√
<b>Success Completion Rates</b>	66.6%	83.3%	100%

For Task 1 the participants had to use the “By Topic” or “Research Pro” tab to be considered successful. The participants that were unsuccessful ended up abandoning find articles in lieu of the databases or the search box on the library homepage.

For Task 2 the participants had to use the “Databases (A-Z)” tab to be considered successful. The participant that was not successful went to the “By Topic” tab and then searched the entire page for the name of the database that he was looking for.

For Task 3 the participants had to use the “Article Search” tab to be considered successful. The results page offered no indication that the participant had typed a citation successfully and that it was in fact not in the Zahnnow Library’s collection. The one participant that was not successful ended up leaving the Zahnnow Library’s website completely in order to search it on Google.

**Note:** Screenshots can be found in Appendix D

**Table 2. Time On Task (in seconds)**

	1	2	3	4	5	6	Average
<b>Task 1</b>	123	150	56	166	<b>236</b>	291	170.33
<b>Task 2</b>	266	91	<b>268</b>	112	54	175	161
<b>Task 3</b>	414	116	<b>537</b>	197	527	141	322

While time on task might not tell us what needs to be improved, or how to improve it, it provides us with a metric that we can compare in later testing to verify that beneficial changes were made.

**Table 3. Task Satisfaction ( 5 – high )**

	1	2	3	4	5	6	Average	Successful Average
<b>Task 1</b>	2	3	3	4	4	3	3.17	3.25
<b>Task 2</b>	5	5	2	4	5	4	4.17	4
<b>Task 3</b>	3	4	1	3	2	3	2.66	3

The participants had varying levels of satisfaction after completing the tasks. Task 2 was the easiest and quickest for most of the participants, not requiring the moderator to suggest that they try again a different way. Task 3 had the lowest satisfaction because the participants did not realize that the result screen was one click away from the ILLiad form and the end of the task.

## Conclusions

Overall, students are able to find the articles that they are looking for, although not through the find articles subsection. The results from this round of testing demonstrate that:

- Students will use what they are comfortable with, whether that is a database (ProQuest, Gale), a sub-section (databases), or another website (Google).
- If students get frustrated finding a specific article or journal, they will quickly give up on the resources that the Zahnow Library provides them in order to go to a third party search (Google) or they will find another article that they can use.
- Students pay attention in training and will use the resources that they are shown. The Zahnow Library and First Year Writing Program must work together to showcase the resources that they think the students will get the most benefit from.

It is our recommendation that the Zahnow Library make the changes and test new students to see if they are able to complete the tasks with greater ease.

## Specific Recommendations

### Training

- Make sure that the library staff and the First Year English Faculty is comfortable with the database that is shown during training. Students tend to continue using the same one because they have seen it before and are comfortable with it.
- In training, try to make the point that most databases are similar on how they search with different data. Students are hesitant to trying new database because they are afraid of the unknown.

### Search Tips

- Move the descriptions of each tab to the tab itself. (Figure 5)
- Replace Search Tips with a list of what is being searched for (or by) and which tabs are helpful (Figure 6)

### Expanded Search

- Offer a page that searches multiple databases at the same time to give students more results. Research Pro already does this, but students do not know which options they have to select and end up getting no results and leaving. This can be covered in the training.

### Results

- Let students know that they searched for a specific correctly and that the Zahnow Library doesn't have it in their collection.

### Sub-Sections

- Remove the link to the sub-section called Databases from the sidebar. There are tabs in find articles that replicate what students use from here and they get confused as to which one they should go to.

# Appendix

## A. Screener and Profile Spreadsheet

Table A-1: Tested Users

Participant	Age	Major	Internet use per week	Used Library before?	Use Librarian Chat?	Other Search Resources
1	17-21	Occupational Therapy	10 hrs	Yes	No	Google
2	17-21	Nursing	10 hrs	Yes	No	Google Wikipedia
3	17-21	Biology	5 hrs	Yes	No	Google
4	17-21	Nursing	15 hrs	Yes	Yes	Google
5	17-21	Business Management	50 hrs	Yes	No	Google
6	17-21	Pre-Optometry / Biology	10 hrs	yes	No	Google

## B. Testing Environment

### Testing Technical Specifications:

Browser: Firefox 16.0.2

Monitor Resolution: 1920x1200

Hardware: Apple iMac 12,1 i5 1.7GHz, 4GB Memory

Operating System: OSX 10.6.8

## C. Moderators Guide

Hi, <participant's name>. My name is <facilitator's name> How are you doing today? Were you able to find this office ok?

First I want to tell you a little about who I am. I am a graduate student at SVSU in the Communications and Digital Media program. We take classes that cover topics from usability to social media. As part of our curriculum, we learn how to test new and existing applications to make sure that target audiences can use them effectively and have a good experience with them. We've asked you here today to participate in some research for the Zahnnow Library. You're doing my class and the library a tremendous favor, and we very much appreciate it. I'd like to gather some input from you about some services that the library offers, and I'd like to use your input to help my team make some recommendations.

Just a few things to cover quickly:

- We will be filming this process
- There may be some other people in the room with us, but please ignore them
- I want to make it clear right away that we are testing the site, not you. You can't do anything wrong here. In fact, this is probably the one place today where you don't have to worry about making mistakes.
- As you use the site, I'm going to ask you to as much as possible to think out loud: to say what you're looking at, what you're trying to do, and what you're thinking. This will be a big help to us.
- Also please don't worry that you are going to hurt our feelings. We're doing this to improve the site, so we need to hear your honest reactions.



- If you would, I'm going to ask you to sign a simple permission form for us, It just says that we have your permission to record you, and that the recording will only be seen by the people working on the project.

- ☐ Leave the browser open to <http://www.svsu.edu>
- ☐ Give them a recording permission form and a pen
- ☐ While they sign it, start recording with Silverback

Do you have any questions so far?

Ok. Before we look at the site, I'd like to ask you a few quick questions:

- First, what's your major?
- Now roughly estimate how many hours a week you spend using the Internet, including web browsing, and email, at home and at work.
- What kinds of sites are you looking at when you browse the web? Do you have any favorite sites?
- As a current SVSU student, how often do you use the library website to search for articles?
- Do you find what you're looking for easily on the library's site?
- Have you ever asked a Librarian for help? Why?
- What other search engines or websites do you use to search for articles?

#### Task Tracking:

- Success (Successful, Somewhat Successful, Unsuccessful)
- Initial searching choice for a specific task article.
- Participants feelings (1 -5) on how they felt about the ease of each task
- Time taken to complete (or abandon) task
- Did participants try to use chat to talk to a librarian?

#### User Task Zero:

- ☐ Click on library link in the quick links at the top of the page
- ☐ Take notes on how they would normally find articles

How would you normally start looking for an article on the Zahnow Library's website? Just look around here and do a little narrative. You can scroll if you want to, but don't click anything yet.

Thanks, now I'm going to try doing some specific tasks. I'm going to read each one out loud. And again, please try to think out loud as much as possible.

#### User Task One:

- ☐ Hand the student the first user task and read it to them
- ☐ Have the student click on the "Find Articles" link in the left-hand navigation
- ☐ If they try to use the chat, tell them that we are more interested in finding out how they try to find the article without a librarian and that you will take a note that they tried to use it

In your Biology class you were assigned a research paper detailing the effects of dams on fish populations. Try to use the Find Articles subpage on the Zahnow Library's website to find an article that you could use as a source for your paper.

### User Task Two:

- ☐ Ask them on a scale of 1 – 5, with five being the easiest, how the last task went
- ☐ Hand the student the second user task and read it to them
- ☐ If they try to use the chat, tell them that we are more interested in finding out how they try to find the article without a librarian and that you will take a note that they tried to use it

One of your friends remembered reading an article called “Implications of Dam Obstruction for Global Freshwater Fish Diversity” and recommended that you use it as one of the sources for your research paper. They don’t have a copy of it anymore but they found it using the Wilson OmniFile Text Select database through the Zahnow Library’s website. Try to find this article.

- ☐ Ask them on a scale of 1 – 5, with five being the easiest, how the last task went
- ☐ Hand the student the third user task and read it to them
- ☐ If they try to use the chat, tell them that we are more interested in finding out how they try to find the article without a librarian and that you will take a note that they tried to use it
- ☐ If the article is not full text, see if it is in the library
- ☐ If it is not in the library, can they get an Interlibrary Loan?

### User Task Three:

One of the articles that you found cited an article that seemed like would be a great article for you to reference in your paper. Try to find if the Library has a copy of the article based off of the following APA (6<sup>th</sup> ed.) citation by going back to the Find Articles subpage. If the Library doesn’t have a copy of the article request it from an interlibrary loan.

Porto, L. M., McLaughlin, R. L., & Noakes, D. L. G. (November 01, 1999). Low-Head Barrier Dams Restrict the Movements of Fishes in Two Lake Ontario Streams. *North American Journal of Fisheries Management*, 19, 4, 1028-1036.

### Conclusion:

Thanks, that was very helpful. If you will bear with us for a couple more minutes, we have a few more questions that we’d like to ask you.

- What two things helped you the most when using the Website?
- What two things need improvement to help you more easily search the Website?
- How would you describe your overall experience?
- Would you use the library to search from now on?
- Do you have any other suggestions or comments that you would like us to pass on?

- ☐ If they didn’t mention the brief tab descriptions, ask them if they noticed them and if they helped.
- ☐ If they didn’t mention the links on the far right, ask them if they noticed them and if they helped or if they knew what they could be used for
- ☐ If they didn’t use the find articles, ask them why
- ☐ If they didn’t use ILLIAD as them why

If you’ll excuse me for a minute, I’m just going to see if the people on the team have any follow up questions that they’d like me to ask you.

☐ Ask the observers if they have any questions

Do you have any questions for me, now that we're done?

☐ Stop the screen recorder

☐ Thank them and escort them out

## D. Figures

Figure 1. Task One - By topic

Search Tips	by Topic	Databases (A-Z)	Research Pro	Journal Search	Article Search
	<a href="#">Accounting</a>	<a href="#">Diversity</a>	<a href="#">History</a>	<a href="#">Nursing</a>	
	<a href="#">Art</a>	<a href="#">Economics</a>	<a href="#">Law</a>	<a href="#">Occupational Therapy</a>	
	<a href="#">Biology</a>	<a href="#">Education</a>	<a href="#">Leadership</a>	<a href="#">Philosophy</a>	
	<a href="#">Business</a>	<a href="#">Engineering</a>	<a href="#">Literature</a>	<a href="#">Physical Education</a>	
	<a href="#">Chemistry</a>	<a href="#">English</a>	<a href="#">Management</a>	<a href="#">Physics</a>	
	<a href="#">Communication</a>	<a href="#">Environment/Earth Science</a>	<a href="#">Marketing</a>	<a href="#">Political Science</a>	
	<a href="#">Company Information</a>	<a href="#">Finance</a>	<a href="#">Math</a>	<a href="#">Psychology</a>	
	<a href="#">Computer Science</a>	<a href="#">Geography</a>	<a href="#">Multisubject/Reference</a>	<a href="#">Social Work</a>	
	<a href="#">Criminal Justice</a>	<a href="#">Government</a>	<a href="#">Music</a>	<a href="#">Sociology</a>	
	<a href="#">Cultural Studies</a>	<a href="#">Health</a>	<a href="#">News/Newspapers</a>	<a href="#">Theater</a>	
	-	-	-	<a href="#">Women's Studies</a>	

Figure 2. Task One - Research Pro

Search Tips	by Topic	Databases (A-Z)	Research Pro	Journal Search	Article Search
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Use Research Pro to simultaneously search for articles by topic from selected databases. Select from a list of 30 library databases or use the preselected database groups. If looking for a specific article, enter the article title and search by article title from selected databases.

**[Search Multiple Databases](#)**






Figure 3. Task Two – Databases (A-Z)

Search Tips	by Topic	Databases (A-Z)	Research Pro	Journal Search	Article Search
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**-Select your database by database name from the A-Z links listed below.**  
**-Access to most of the databases listed requires a current SVSU username and password.**  
**-Contact the library's reference desk for access assistance (Chat or Call 989.964.4242)**

**[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)**

Figure 4. Task Three – Article Search

Search Tips	by Topic	Databases (A-Z)	Research Pro	Journal Search	Article Search
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[About Article Search](#)

 **Enter article information below:**

Journal Title

Article Title

Author (Last name only)

ISSN (Print ISSN / Online ISSN)

Date

Volume      Issue      Page

Figure 5.

The screenshot shows a web browser window with the address `librarysubjectguides.svsu.edu/fa`. The page header includes the Saginaw Valley State University logo and the text "ZAHNOW LIBRARY". Below the header, a navigation bar shows "Library > Zahnow Library Subject Guides > Find Articles" and an "Admin Sign In" link.

The main heading is "Find Articles With These Library Resources...". Below this is a search interface with tabs for "Search Tips", "by Topic", "Databases (A-Z)", "Research Pro", and "Journal Search". The "by Topic" tab is selected, showing an "Article Search" sub-tab.

A text box states: "Databases grouped by subject. Links will offer the best databases for your topic." Below this is a grid of subject categories, each with a link to a list of databases:

<a href="#">Accounting</a>	<a href="#">Diversity</a>	<a href="#">History</a>	<a href="#">Nursing</a>
<a href="#">Art</a>	<a href="#">Economics</a>	<a href="#">Law</a>	<a href="#">Occupational Therapy</a>
<a href="#">Biology</a>	<a href="#">Education</a>	<a href="#">Leadership</a>	<a href="#">Philosophy</a>
<a href="#">Business</a>	<a href="#">Engineering</a>	<a href="#">Literature</a>	<a href="#">Physical Education</a>
<a href="#">Chemistry</a>	<a href="#">English</a>	<a href="#">Management</a>	<a href="#">Physics</a>
<a href="#">Communication</a>	<a href="#">Environment/Earth Science</a>	<a href="#">Marketing</a>	<a href="#">Political Science</a>
<a href="#">Company Information</a>	<a href="#">Finance</a>	<a href="#">Math</a>	<a href="#">Psychology</a>
<a href="#">Computer Science</a>	<a href="#">Geography</a>	<a href="#">Multisubject/Reference</a>	<a href="#">Social Work</a>
<a href="#">Criminal Justice</a>	<a href="#">Government</a>	<a href="#">Music</a>	<a href="#">Sociology</a>
<a href="#">Cultural Studies</a>	<a href="#">Health</a>	<a href="#">News/Newspapers</a>	<a href="#">Theater</a>
-	-	-	<a href="#">Women's Studies</a>

On the right side, a yellow box titled "More Article Resources" contains a list of links:

- [Browse Library Journals](#)
- [Finding Primary Sources](#)
- [Finding Scholarly & Peer Reviewed Journals](#)
- [Online Peer Reviewed Education Journals](#)
- [Request it with Iliad](#)

At the bottom center, there is a chat icon and the text: "We are online!--click to chat with a librarian".

Figure 6.

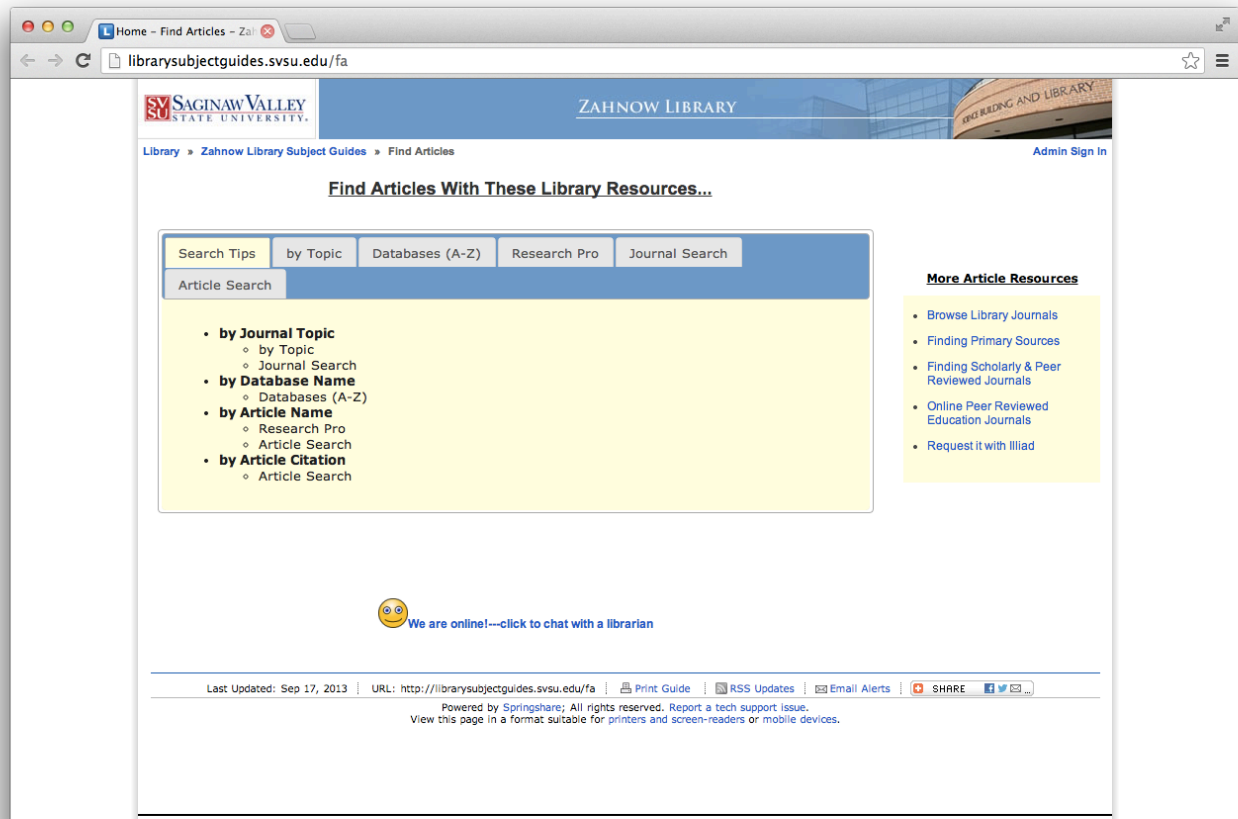


Figure 7

