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Part 1: Purpose & Goals based on Needs Assessment Survey

Our most basic goal as a team was to teach the students about databases and other sources for research. We are aware that many students are not utilizing the resources that the library offers and we wanted to show them that there were ways to find information that didn’t involve the word google. Based on the needs assessment survey (NAS) we were surprised to find that students said they search between 1 and more than 3 databases when doing research. That clued us into the fact that we might have been underestimating how much these students have used databases.

We also learned that 93% of the students have used PsycInfo with PsycArticles (55%) and Academic Search Premier (48%) coming in as the next most used databases. (Students could choose more than one response for this question). The NAS showed that when students get 0 results from a search 89% select a new database, 82% try a new search and 52% either get help from a person or switch to searching the Internet. (Students could choose more than one response for this question).

According to the NAS, the students were familiar with database search limiters, so we felt we didn’t have to cover this area too much. They were also familiar with the different types of e-resources that are available through Hamilton Library.

Based on the NAS and what we felt was important, we decided to cover choosing a database, search tools such as Boolean, truncation, wildcards and controlled vocabulary, and search strategies. We could see that introducing new databases and explaining how to find out if a database is relevant to your search topic would be helpful as it seemed that most of the students only know about PsycInfo for their subject. Learning different search tools and techniques would
also help them in finding articles and easing frustration. We felt these specific search tools were the most helpful and easiest to learn/use.

**Our Final Goals**

Based on the ACRL *Standards for Libraries in Higher Education* and the ACS Outcomes

1. Students will know how to find and access databases, LibGuides, and subject librarians.

   **Performance Indicator:**

   1. The information literate student selects the most appropriate investigative methods or information retrieval systems for accessing the needed information. (ACRL 2.1c,d)

   **Outcomes:**

   1. Sensorimotor: Student identifies appropriate resources for their research, i.e., databases, LibGuides, and which librarian oversees their subject area.

   2. Cognitive: Student can effectively explain why they believe a chosen resource is appropriate based upon: database help file, database description on library website, journals available in a database, years of publication covered, or a combination of these factors.

   3. Affective: Student develops a positive relationship with available resources for their subject based on the likelihood that they will use a database again. This will be assessed in a Google Form survey we will have the students do after the session.

   **SAOAC:**

   When needing to find resources for a research project (Situation) student will be able to find and evaluate (Ability) appropriate databases (Object) (based on years covered, subjects covered, types of materials, number or records, and journals covered) for their subject by
locating and accessing (Action) them through Hamilton Library (Target).

2. Students understand different search tools i.e. Boolean, truncation, limiting, subject terms, full display vs. short format. (ACRL 2.2 b,c,d,e & 2.4 a,b,c)

   **Performance Indicator:**

   2. The information literate student constructs and implements effectively-designed search strategies.

   4. The information literate student refines the search strategy if necessary.

   **Outcomes:**

   1. Sensorimotor: Student constructs effective search strategies using search tools, effective meaning the results are on topic and relevant to the query.

   2. Cognitive: Student is able to analyze search results and is able to revise search strategy for more relevant results.

   3. Affective: Student appreciates the importance of multiple search strategies.

   **SAOAC:**

   In learning to use a database (Situation) students take what they have learned from our lecture on search strategies (Boolean, truncation, wild card, exact phrasing, controlled vocabulary) to build and develop (Ability) an effective search for their research, effective meaning the terms and search tools they use will are relevant to the query. They will use the search tools that will yield them the most relevant results (results that are on topic with the research) based on their topic. Based on their results students will evaluate and alter their search for better results by changing search terms to limit or expand their results (Constraint).
Part 2: Student’s Skills Prior to Session and Instruction Unit

Based on the NAS given to students prior to our class conducted instruction sessions, we learned the students already possessed several skills. 100 percent of respondents to the survey said they had used a computer for a minimum of 6 years to a maximum of 25 years. Based on this we knew they wouldn’t have problems using computers. Students had to respond to a question about which databases they had used before (and could choose more than one database), all respondents said they had used at least one database so we concluded they knew how to access databases through Hamilton Library. According to the survey, students were familiar with database search filters, so we felt we didn’t have to cover this area as in-depth as Boolean limiters.

Instructional Sequence

Introductions of all three of us (2’) 1:00pm

Overview of Session (slide) - David (1’) 1:02pm

Database evaluation lecture (slides and live demonstration) - Lea Anna (5’) 1:03pm

This will include where to find databases, LibGuides, how to find help files in database, UH synopsis of database. Also go over what criteria they should look for in picking a database (worksheet). We will have some slides, but will mostly be live.

Database evaluation activity/student present findings - Group activity (20’) 1:08pm

Students will be grouped and assigned a database to evaluate based on the criteria on the worksheet. (PsycInfo/Net, Psychology and Behavior Sciences, PILOTS (Published International Literature on Traumatic Stress), Web of Science). Ten minutes for the evaluation and ten minutes for the presentations of their findings. Presentations will be informal.

Boolean Video - (4’) 1:28pm

This will also include time for any questions the students might have.

Boolean Activity - Nicole (5’) 1:32pm
In the same groups, the students will be given cards with AND, OR, NOT written on them. There will be examples on the slides where the students will need to fill in the Boolean operator. This section will also include a brief introduction to Boolean and parentheses. *(can skip if low on time, only because they went over this the week before)*

Other search tools (slides) - David (6’) 1:37pm

Lecture introducing and explaining the other search tools; truncation, wild cards, controlled vocabulary, exact phrasing. There will be time for questions during this section also.

Search Exercise (worksheet) - Lea Anna will explain the activity, we will all roam during the activity if the students need help (25’) 1:43pm

In the same groups, students will create search strategies using the search tools they have been introduced to. They will have specific questions on the worksheet to base the search strategies on. Each group will be using PsycInfo/Net for this activity. (10’) 1:53pm
Once they have finished, the groups will run their final search strategy on the main computer for the class to see. During this time the class will brainstorm other options for the search strategy. (15’) 2:03pm

Survey (Google Form) (5:00) 2:18pm

The students will complete the survey in class after the session. We will send the form to Dr. J for him to distribute through their Google Group.
- depending on how we are on time we will or will not have students do the google form in the class.

Materials needed: Google form, index cards with Boolean terms, worksheets, access to databases (for students), projector (provided by Yoko via Aquaculture).
Part 3: Visual Aids and Handouts

Worksheets

Researching in Databases

Database Name: __________________________________________________________

Evaluation Criteria:
Tips: Look at the UH Introduction to the database, database help file or a sample search

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What does the database cover in</td>
<td>What types of materials are</td>
</tr>
<tr>
<td>terms of subject?</td>
<td>available? (scholarly articles,</td>
</tr>
<tr>
<td></td>
<td>newspapers, conference papers etc.)</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the date range?</td>
<td></td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Does it offer full text? (*note:</td>
<td>Peer reviewed articles?</td>
</tr>
<tr>
<td>some do not)</td>
<td></td>
</tr>
</tbody>
</table>


What makes this database useful for your course research? ________________________________

__________________________________________________________________________________

Would you recommend it to other classmates? Why?

__________________________________________________________________________________

__________________________________________________________________________________
Questions for the Search Strategy Exercise

Construct search strategies to get 25 to 70 results that are relevant to the following:

1) Road rage studies that use techniques such as the Driving Vengeance Questionnaire

2) Road rage studies that involve men
**Handouts**

**Boolean Operators**
Boolean operators allow you to expand or narrow your search as needed. Combine search terms to narrow (“AND”) or broaden (“OR”) results. Use “NOT” to exclude records from retrieval.

<table>
<thead>
<tr>
<th>Operator</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AND</td>
<td>Both terms (narrow)</td>
</tr>
<tr>
<td>OR</td>
<td>Either or both terms (broadens)</td>
</tr>
<tr>
<td>NOT</td>
<td>Excludes terms not wanted</td>
</tr>
</tbody>
</table>

**Truncation**
Truncation will find all forms of a word root. The asterisk (*) replaces more than one character. For example, searching therap* finds therapy, therapies, therapist, therapists, therapeutic etc.

**Wildcard**
Use in place of a letter within a word to retrieve other forms of the word, the symbol differs in each database, some common symbols are $ _, *.
For example, wom$n finds woman or women

**Controlled Vocabulary**
Also known as Index terms, Subject terms, or Thesaurus; these function similarly to tagging in social media, however only the database applies these terms.

**Exact Phrase Searching**
To find an exact phrase put that phrase in quotation marks.
For example: “cute puppies”
<table>
<thead>
<tr>
<th>Database:</th>
<th>Database:</th>
<th>Database:</th>
<th>Database:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects covered:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Types of materials:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date range:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-text or Peer-reviewed:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Database Searching

Keall'i, Lea Anna, Nicole

Finding Relevant Resources

- LibGuides/Subject Guides
- Librarians
- E-resources synopses
- Database Help Files
Database Evaluation Activity

- PsycNet
- Psychology and Behavioral Sciences Collection
- PILOTS (Published International Literature on Traumatic Stress)
- Web of Science

Boolean Logic

http://www.youtube.com/watch?v=vube-ZcJFk4&feature=player_embedded
Boolean Activity:

You're starting to date online. They leave a space for you to have your preferred first date gift. When you search, which term would you use to get either option?

Roses ____ Chocolate

In the past you've had terrible relationships with people with tempers. What term would you use to make sure this personality trait is excluded?

Calm ____ Angry
You’re looking for articles that cover both of these topics, what term would you use?

Road ___ Rage

Boolean and Parentheses!!

To better organize your search strategy, group concepts together. With Boolean, parentheses are used in this way:

( OR

AND (Cute OR Fluffy)
You have articles that are relevant, but you feel like you’re missing some. Which terms would you use to include more articles?

(Car__Automobile)___(Wrecks__Accidents)

What terms would you use to make sure squirrels or dementia don’t come up in your results?

Accidents___(Distractions___Old-Age)

___ (Squirrels___Dementia)
truncation and wildcard

truncation: the addition of a marker on the end of a word that tells the database that any addition after this stem is acceptable
wildcard: the placement of a marker within a word that tells the database that any character found for that marker is acceptable

exact phrase

To conduct an exact phrase search place your term in "quotation marks"

For example

"adorable rodents"
Controlled Vocabulary

Sometimes found under Subject Terms or Thesaurus in databases

How databases define terms/vocabulary.

Search Strategy Exercise

- Create search strategies for the queries

- Are the results relevant?

- How can you change the search strategy to broaden or narrow the results?

- Which search tools did you use? Were they effective, why or why not?
Part 4: Exercise Response Items

Database evaluation activity

Students are grouped and assigned a database to evaluate based on the criteria on the worksheet. (PsycInfo/Net, Psychology and Behavior Sciences, PILOTS (Published International Literature on Traumatic Stress), or Web of Science). Ten minutes are allotted for the evaluation of databases within groups and ten minutes for the informal presentations of their findings.

Outcomes:
Sensorimotor: Student identifies appropriate resources for their research, i.e., databases, LibGuides, and which librarian oversees their subject area.

Cognitive: Student can effectively explain why they believe a chosen resource is appropriate based upon: database help file, database description on library website, journals available in a database, years of publication covered, or a combination of these factors.

Boolean Activity

In the same groups, the students will be given cards with AND, OR, NOT written on them. There will be examples on the presentation slides in which the students will need to fill in the missing Boolean operator. This section will also include a brief introduction to Boolean and parentheses.

Outcomes:
Sensorimotor: Student constructs effective search strategies using databases, meaning that they find relevant results that pertain to their query utilizing the methods we have gone over such as Boolean operators, truncation, wild card, exact phrasing, controlled vocabulary and database
evaluation criteria, such as topics, years, journals covered within the database. We will judge relevancy based on if the results are on topic with the query and specific to the subject.

Cognitive: Student is able to analyze search results based on relevancy to their query and revise their search strategy with either Boolean or truncation, wild cards for more specific results.

**Search Exercise**

In the same groups, students will create search strategies using the search tools they have been introduced to. They will have specific questions on the worksheet to base the search strategies on. Each group will be using PsycInfo/Net for this activity.

Once they have finished, the groups will have one group member run their final search strategy on the main computer for the class to see. During this time the class will brainstorm other options for the search strategy.

**Outcomes:**
Sensorimotor: Student constructs effective search strategies using databases, meaning that they find relevant results that pertain to their query utilizing the methods we have gone over such as Boolean operators, truncation, wild card, exact phrasing, controlled vocabulary and database evaluation criteria, such as topics, years, journals covered within the database. We will judge relevancy based on if the results are on topic with the query and specific to the subject.

Cognitive: Student is able to analyze search results and is able to revise search strategy for more relevant results.

**Answer Keys**
**Boolean PowerPoint Activity**

Roses OR Chocolate

Calm NOT Angry

Road AND Rage

(Car OR Automobile) AND (Wrecks OR Accidents)

Accidents AND (Distractions OR Old-Age) NOT (Squirrels OR Dementia)

**Database Evaluation Handout**

<table>
<thead>
<tr>
<th></th>
<th>PsycNet</th>
<th>Psychology &amp; Behavioral Sciences Collection</th>
<th>Web of Science</th>
<th>PILOTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjects Covered:</td>
<td>Psychology and related disciplines</td>
<td>Emotional and behavioral characteristics, psychiatry and psychology, mental processes, anthropology, and observational/experimental methods</td>
<td>Social sciences, arts &amp; humanities,</td>
<td>Post-traumatic stress disorder (PTSD) and other mental-health sequelae of traumatic events, without disciplinary, linguistic, or geographical limitations</td>
</tr>
<tr>
<td>Date Range:</td>
<td>1887-present</td>
<td>1971-present</td>
<td>1980-present</td>
<td>1871-present</td>
</tr>
<tr>
<td>Full-text or Peer-reviewed</td>
<td>Partial full-text &amp; Peer-reviewed</td>
<td>Partial full-text &amp; Peer-reviewed</td>
<td>No</td>
<td>Partial full-text &amp; Peer-reviewed</td>
</tr>
</tbody>
</table>
• Each written response will be judged on the following characteristics:

• Finding results whose numbers fell within the stated accepted range (25-70)

• Results were on topic

• Evidence of Concept Blocking

• Number of techniques used: Boolean (AND, OR, NOT), Controlled Vocabulary, Truncation, Exact Phrase Searching and Wildcard

**Part 5: Session Evaluation**

Survey (Google Form):

The students completed the survey in class after the session. We sent the form to Dr. J for him to distribute through their Google Group.

Outcomes:

Affective: Student develops a positive relationship with available resources for their subject based on the likelihood that they will use a database again.

Affective: Student appreciates the importance of multiple search strategies.

Questions

Survey (Google Form):

The students will complete the survey in class after the session. We will send the form to Dr. J for him to distribute through their Google Group.

Questions and Standard, performance indicator, outcomes (SPIO):

1. After this workshop I understand that Boolean operators: (select all that apply) (SPIO 2.2d)

   Narrow
   Truncate
   Exclude
   Broaden
2. TRUE or FALSE: Truncation: * or $, allows me to search for root word variations. Example: Doctors, Doctored, Doctorate, Doctoring (SPIO 2.2a)

   True
   False

3. Controlled vocabulary, also known as subject terms or thesaurus terms allow me to: (select all that apply) (SPIO 2.2c)

   Broaden a search
   Narrow a search
   Break a search
   Devolve a search

4. After today’s class I know how to find out if a database is relevant to my research? (SPIO 2.1c)

   Yes
   No
   Still need more instruction

5. Which database are you most likely to use based on this session? Why? (open ended) (SPIO 2.1c)

6. To do an exact phrase search I can use: (select one) (SPIO 2.2d)

   “parentheses”
   *asterisks*
   ?question marks?

7. If you use the wildcard search tool (?_) in Wom?n, what variations would appear in your results? (Select all that apply) (SPIO 2.2d)

   Woman
   Women
   Man
   Men

8. What did you find to be the most useful from this workshop? (open ended)

9. Is there anything that is still unclear? If you’d like a response please include your email address. (open ended)
Part 6: Memo to administration

To: The University of Hawai‘i at Mānoa Administration  
From: Graduate Students of the Library and Information Science Program  
Regarding: Information Literacy Instruction Session

Dear members of administration,

Recently Library and Information Science graduate students, taught a unit to a 400 level psychology class on how to effectively use and evaluate databases, and conduct detailed searches for their research. We feel that this instruction unit should be included in both lower and upper division courses across all schools. Our session ties into the university’s General Education Foundations, in particular part 4 of Foundations - Written Communications which states:

Help students develop information literacy by teaching search strategies, critical evaluation of information and sources, and effective selection of information for specific purposes and audiences; teach appropriate ways to incorporate such information, acknowledge sources and provide citations. “Information literacy” includes knowledge of and competence using Internet as well as print materials.  
http://www.hawaii.edu/gened/foundations_FW.htm

It is our belief that students should have opportunities to learn how to find information effectively in order to succeed in their higher education, become acquainted with skills that encourage them to be lifelong learners, and become informed citizens. Our session on database evaluation and effective search strategies is one way to begin this process. As such we would encourage the creation and utilization of more courses and workshops that deal directly with Information Literacy on this campus.
Sincerely,

Lea Anna K. Hoffman  
D. Keali‘i MacKenzie  
Nicole Vanderpool  
Graduate Students:  
University of Hawai‘i at Mānoa  
Library and Information Science