29. Selecting the “Proper” Subject Heading

Gary M. Klein
Hatfield Library, Willamette University, Salem, Oregon

Introduction

Starting with the commonly held assumption that any phrase that you think of will be the best way to search for a given subject, you will be shattering a myth and then replacing it with an easy-to-use tool. This exercise demonstrates that students can readily overcome the vagaries of language by learning how to use tools that guide them through the subject headings used to index journal articles. By taking a few moments to list some synonyms that exist within our language, students can be guided into seeing how those words are used as subject headings by indexing or abstracting tools. Students also learn how to modify the search process to increase preciseness of finding appropriate subject headings for their needs. This exercise also helps index users to gain control over their searching strategy; to narrow, broaden, or move beyond the original concept of a research topic to fit the ever-changing body of literature. This exercise uses brainstorming to develop a “shopping list” of possible subject headings. The examples shown are from sources that focus on “coping with disasters” and “disaster preparedness.”

Subject

Any

Level of Activity

Intermediate to graduate level

Size of Class

Maximum 30-35 students

Time Required

Preparation: 60-90 minutes; in-class, 30 minutes

Preparation

1. Decide on a subject-oriented abstracting or indexing service appropriate for all the students in the session to work with.
2. Choose a topic appropriate to their subject interest and upcoming assignments. Example: “Coping with disasters” or “Disaster preparedness” could be used with students in business, education, engineering, or history.
The following services are among the most appropriate for this topic:

- Business Periodicals Index
- Engineering Index
- General Science Index
- Education Index
- ERIC
- Applied Science & Technology Index
- PAIS/Public Affairs Information Service
- Humanities Index
- Historical Abstracts

3. Brainstorm to come up with a specific topic as an example that you can work with in class. Use something that was recently in the headlines (e.g., forest fires, earthquakes, tornadoes, volcanic eruptions, flooding).

4. Frame the research topic into a question: “If you had to do research on natural disasters, such as earthquakes, and needed to focus on disaster preparedness and coping with disasters, what subject headings would you look up to find articles on your topic?” Make a written list of the phrases that come to mind. For example, eight phrases that might come to mind with the topic of “Coping with and preparing for earthquake-related disasters” include:
   - Coping with disasters
   - Disaster preparedness
   - Earthquakes
   - Fault lines
   - Natural disasters
   - San Andreas Fault
   - Seismic activity
   - Plate tectonics

5. Pull out one year’s worth of the index you have decided to use, and look up all of those phrases that you just jotted down in Step #4. Note which phrases are usable as is and which ones are cross-referenced. Make note of the EXACT format for each valid heading used by that index.

Example: Using the 1995 edition of the Applied Science & Technology Index, you will find nothing listed under: “Coping with disasters” nor “Disaster preparedness”; 5 citations listed under “Disasters” and 7 cross-references; and over 20 related headings, many of which offer additional cross-references.

6. Make detailed notes of which subject headings were useful, either directly as is, or through their cross-references. Trace out all of the cross-references. Keep all of the punctuation intact to demonstrate the relationship between main headings and their sub-headings or related concepts.

Cross-check and verify that each heading is actually providing access to at least one appropriate article for your topic. As you verify the reasonableness of these headings, keep adding to your list any useful cross-references that you might find.

Example: Using the 1995 edition of the Applied Science & Technology Index...
Index, you will find that there are many access points to the concept of earthquakes and disasters:

<table>
<thead>
<tr>
<th>Number of citations</th>
<th>Usable subject headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>Aftershocks</td>
</tr>
<tr>
<td>6</td>
<td>Assistance in emergencies</td>
</tr>
<tr>
<td>23</td>
<td>Strike-slip faults</td>
</tr>
<tr>
<td>23</td>
<td>Thrust faults (Geology)</td>
</tr>
</tbody>
</table>

7. Type up the listing that you compiled in Step #6, incorporating the punctuation marks that identify main headings from sub-headings. Sort the listing alphabetically. Space it out so that there is plenty of room to take notes. Label the sheet with the name and volume number of the indexing/abstracting source that you used. Run off enough copies for every student in your class. Before you distribute them, fold the sheets in half, so that the outside is totally blank, then staple them shut.

8. Prepare the visual aids to accompany your presentation. Make sure that you have sufficient copies of the index or abstracting service that you are demonstrating for the students to pass around. Superseded copies of quarterly indexes are perfect for this presentation. If students will be sitting at a large conference table, you can have up to 3 students share a single volume. Alternatively, you could use an overhead projector or individual computers. Prepare an enlarged photocopy for everyone to take, so students can see all the major features of the index: actual entries on the topic; actual list of headings with their cross-references; and entries that could only be obtained by following a cross-reference.

9. It is helpful to have a variety of indexing/abstracting tools on hand that are relevant to the class that you are teaching. This will facilitate a discussion of narrow versus general coverage, and depth versus breadth of coverage, so that students can have a better understanding of the variety of subject-oriented indexes that are available.

If you cannot get to a store, and your shopping list only has the word KETCHUP on it, how will someone else know if that is the same thing as CATSUP? How should you explain your shopping instructions to someone else, if you have certain preferences? For instance, you might have certain taste or brand preferences. Without having a detailed shopping list prepared in advance, how do you tell someone else what you will pay for—any brand that is extra thick, or any type of barbecue flavor—and what you will reject—anything with onions, or anything costing more than 15 cents per ounce?
Explain to the class that you are going to use a single topic for creating an example on using library resources.

Announce the sample topic and also write it on the blackboard or an overhead screen. Pass out the stapled sheets, and ask the students to spend a minute or so jotting down their suggestions for search strategies on the blank side of the paper. Pose the question: “If you had to do research on natural disasters, such as Earthquakes, and needed to focus on Disaster preparedness or Coping with disasters, what subject headings would you use to find articles?” Walk around the room and assist students in the brainstorming process.

When the students seem to be finished writing, ask them which type of index they might use to find journal articles on the topic. Might you be able to find articles in an art index? A business index? Or an education index? Shatter their myths and giggles with real-life examples.

Show them sample entries that you prepared (either a handout or on screen) from some of the less obvious sources. Hold up a copy of the actual index that the sample entry comes from. Talk about the variety of indexing and abstracting tools that are available in your library. Pass actual copies of the indexes around the room.

Ask the students if a geology index would use the same terminology as an index that is dedicated solely to art, education, or business. “Why would anyone want to turn to an art (or education or business) index to find articles about earthquakes? Have some citations in hand or displayed on a screen.

Ask students to share some of their phrases out loud with the class. They should now have a sense about which words are valid headings and which ones are likely to lead to cross-references or a dead end. If you have time, students can look up their own suggestions in their seats, or you do it selectively. Toss out a word that you know will not be usable, and get them to react to it.

Ask the class to open up their stapled sheets and compare their brainstorming list with those that you prepared in advance. Solicit comments from students who seem surprised by their findings, and go back and forth between actual indexing tools that you have on hand. This facilitates students seeing for themselves how the indexing tools
can guide them in the research process. Engage students in a conversation about the physical structure of the cross-references, the SEE and SEE ALSO, the BT/NT/RT abbreviations, or whatever terminology the index uses to demonstrate conceptual relationships.

Discuss that by taking a few minutes to create a shopping list of alternative phrases (i.e., synonyms) they will spend less time in the long run looking at worthless materials. They will be able to aim for the appropriate materials faster and with more precision than ever before.

As an expansion of this exercise, if students have indexes covering different time spans, you can use that difference to demonstrate how the body of literature changes over time. If I want to look for articles on nuclear disasters, what time span is likely to have the most articles? Has anyone ever heard of Three Mile Island or Chernobyl? What years did those disasters take place? And sometimes, the words we use to describe the literature changes over time: HTLV-3, HIV, and AIDS.

This exercise helps students to be creative in coming up with a “shopping list” of alternative subject headings (generating lists of synonyms) that will be useful for their particular research needs. The classroom activity demonstrates that an indexing/abstracting tool can guide students through the process of refining a search strategy, based on the suggestions that an index can provide to users in the form of synonyms, interrelated concepts, and alternative ways of approaching a topic. This hands-on activity also demonstrates that there are various ways to research a single topic, with each source having its own angle of coverage and relevancy.