RESEARCH STRATEGY AND THE BKL: GETTING THE MOST FROM THE ABSEL ARCHIVES

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ABSTRACT

This paper explains the electronic search features contained in the Bernie Keys Library (BKL) disk, providing specific examples of how each one works. It then combines the features to develop two general strategies for conducting literature reviews using the BKL.

INTRODUCTION

One of the essential elements of progress in our discipline is our ability to build on prior research. Too often, papers address exciting new concepts that, in fact, are not new at all. The obvious solution is to be more thorough in our literature reviews. A prerequisite to *efficient* literature reviews is the ability to find prior research efficiently.

The Bernie Keys Library (BKL) was specifically designed to address this problem. It provides a single, relatively comprehensive literature base upon which researchers in the area of business simulations and experiential learning may draw as they develop a conceptual foundation for their work. There are, of course, other resources as well, most notably, journal articles and books. However, these are often difficult to obtain, even from the best research libraries. Furthermore, many of the ABSEL-related concepts later refined in these media have their origins in research contained in the BKL. The research not actually presented in studies contained in the BKL is often referenced there. And finally, ABSEL is sponsoring an on-going effort to make the BKL even more comprehensive by identifying and incorporating "classical" studies in future editions of the BKL (Cannon and Smith, 2003).

The purpose of this article is to discuss the search capabilities of the BKL, offering practical guidance for mounting efficient literature reviews using the BKL as a resource. It will begin by discussing the basic search functions available through the Adobe Reader incorporated in the BKL disk. It will then go on to present and illustrate various search strategies that should prove useful to researchers. To make the article more useful, we suggest that you load your BKL library disk in your disk drive, and test out the features as we discuss them.

OVERVIEW

ABSEL members are frequent contributors to the "reinventing the wheel" syndrome that plagues many academic research organizations. Its conference proceedings are littered with seemingly new topics that have already been presented in earlier years, often multiple times (Wolfe, 1986; Gentry, Commuri, Burns, and Dickinson,1998). Without efficient access and in-depth reviews of past literature, it is difficult to identify what is new and what isn't, thus paving the way for true progress.

The problem is easier to identify than to address. We have all been victims of the proliferation of research journals, books, and conference proceedings. Even the largest and most comprehensive of libraries cannot afford to carry every journal, and certainly not even most of the conference proceedings, that are potentially related to our research. Even when a specific journal is on file, there is no guarantee that libraries will have the issue desired. Then add the inability to easily search prior articles without spending enormous amounts of time reading each individual article. This becomes a truly daunting task. In practice, many exemplary articles and literature reviews are ignored or missed in the shear mass of information before us.

We have noted the role of the Bernie Keys Library. Much of the most significant work in business simulation and experiential learning has grown out of concepts originally presented at ABSEL conferences. The current version of the BKL holds all 30 editions of the annual ABSEL conference proceedings, *Developments in Business Simulation and Experiential Learning*, as well as Jim Gentry's book *Guide to Business Gaming and Experiential Learning* (1990). With the creation of the "Classicos Initiative" (Cannon and Smith, 2003), future editions of this library will hopefully contain additional books and articles that would be of interest to ABSEL members.

Since the creation of the BKL in 2000, we have already seen papers utilizing the new resources provided in the BKL as well as papers on how to efficiently use it. For instance, Howard and Strang (2001; 2003) use the search capabilities of the BKL to analyze word patterns that characterize themes and trends in ABSEL research. Platt and Peach (2001) used the BKL to create a database using the EndNote software package to facilitate referencing ABSEL papers. In a follow-up paper, they address

the fact that many early papers were published without references, due to page limitations in the proceedings. This limitation does not exist with the BKL, so they propose requesting citations from authors who omitted them with the common statement, "References available upon request."

Other papers have cited the BKL as the source in their research citations, and we can assume that many others use the disk as a source, but merely cite the proceedings in their references.

All of this suggests that the BKL is accomplishing it purpose. At the same time, informal conversations with ABSEL members suggest that many ABSELers still do not know how to use the disk and its search capabilities. Indeed, a number of would-be users have actually suggested including a search function as part of the Library to make it more useful. The obvious implication is that they did not know that the disk has included a search function, much less how to use it.

The remainder of this paper will address the BKL search capabilities and how they might be used in ABSEL research.

MASTERING THE TOOLS

Aside from the central purpose of the BKL to provide a comprehensive archive to support ABSEL-related research, the library's key feature is the fact that it includes a full text search engine that allows anyone to search the entire collection for a specific word or phrase. Without this feature, the BKL would be much less useful.

The best way to begin discussing the BKL search engine is by addressing search engines in general, the nature of which are familiar to most people who worked with the World-Wide Web. The most popular are engines are Google (www.google.com) and Yahoo (www.yahoo.com). Although these engines use different methods for indexing the Internet, from the naïve user's perspective, they both work in a similar fashion. Both are what Chiang (1993) characterizes as "… an idiot that works at the speed of light. If you type in a word or phrase, the software will find every occurrence of that word or phrase in the database, exactly as you typed in and regardless of content" (p. 8).

The engine provided with the BKL is no different. This is both its biggest advantage and disadvantage. A search engine will find the word or phrase that it is told to find, but it cannot find an idea or thought. It will simply list every article in its database that contains the desired word (and, in the case of the Adobe Acrobat search engine used by the BKL, highlight the actual place in each article where the word is used). This makes it easy to find papers that speak of or use "Bloom's Taxonomy" as it is a specific subject. But the search feature becomes more difficult to use with broader search terms such as "simulation," which can be used in a number of different contexts, often with slightly different meanings. More on specific search strategies will be discussed later in this paper.

Getting Started

The BKL was created using the Acrobat .pdf format. This format was chosen because it provides a consistent type of file that virtually any computer platform can read. It also provides an integrated search engine that is easy to use, is easy to learn, and is relatively well documented in the help files provided with Adobe Acrobat Reader software (included with the BKL and is used to view the library).

From a practical perspective, the fact that the BKL runs using Acrobat Reader should be transparent to the user. Savant Electronic Publishing, who produces the disk, has embedded a program that opens the archive up automatically when it is placed in the CD-Rom drive of the computer. The Reader takes over and displays a user-friendly screen that can be navigated with simply clicks of the mouse.

Occasionally, someone's computer will have the autostart function turned off on his or her computer, so the archive does not automatically open. This problem can also exist if someone already has a version of Acrobat Reader, or the full Acrobat program, already open and running when the BKL is placed into the CD-Rom drive. Either of these situations can cause the same disk to load automatically on one computer and not another.

Fortunately, the solution to this problem is relatively easy to solve. One can simply use the Windows Explorer to look at the directory of the CD, find and click on the file entitled "splash.pdf." It is on the first level, so it is not necessary to delve into the many folders listed there. Unfortunately, Windows can be configured many different ways on different computers, so we cannot provide unambiguous directions for finding the file, if you are not comfortable working with Windows Explorer. However, Exhibit 1 provides a picture of what it might typically look like.

Note that it is important that the "splash.pdf" file is opened before any attempt to use the search engine begins. Besides being a good gateway to the rest of the CD, the search will not become available until this page is loaded. Hopefully future additions of the BKL will make this a little bit more user friendly. If in doubt, there is a "readme.txt" file on the CD that will provide directions.

Exhibit 1:
Finding the Splash.pdf File if the BKL Does not Open Automatically
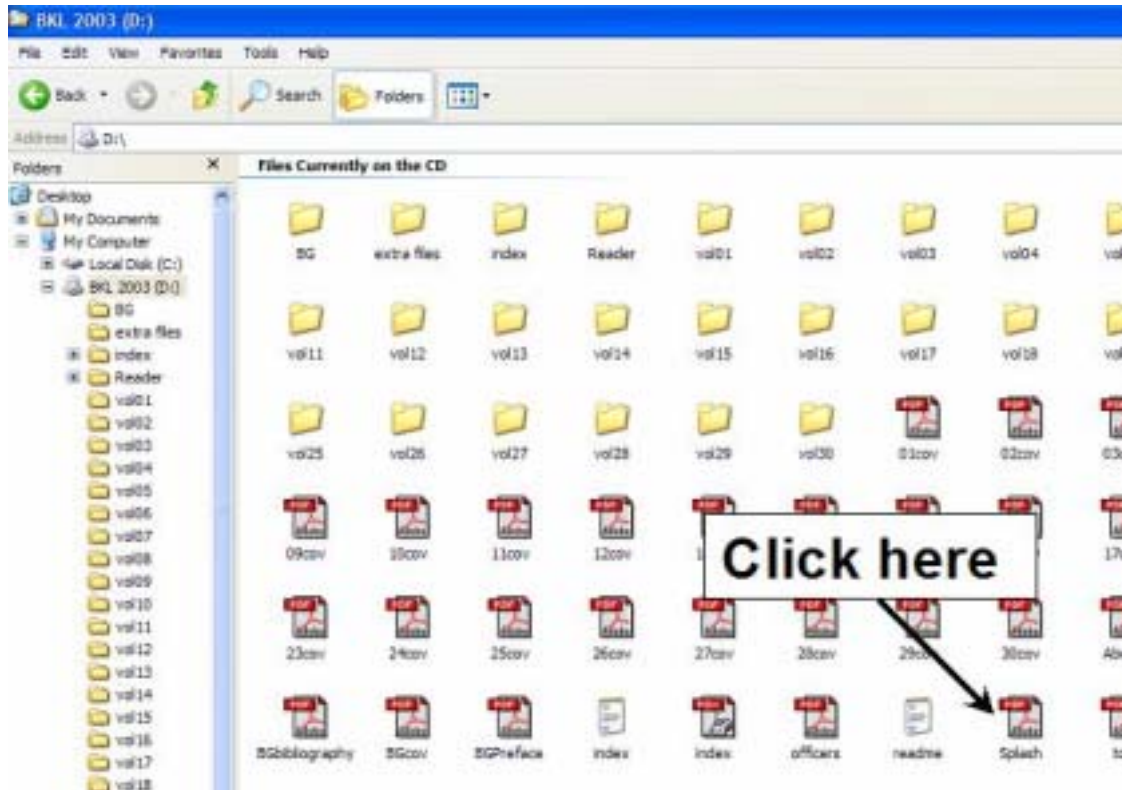
Choosing the Right Tool: Search versus Find

Once the BKL up and running we can examine the power of the search engine that is included. The search engine comes in two flavors: "search" and "find." In our experience, many of the difficulties people have with the BKL search engine are due to the similarities between the "search" and the "find" commands.

Most people are familiar with the basic "find" command, which is available with any .pdf file that they open. This command searches the *current open document* and highlights the responses. It is the basic method of finding words and references within a single document. The "search" command is similar to the find command in that it searches for specific occurrences of a word or phrase but in contrast to the find command, the search command will search multiple documents and then allow the user to choose which documents to view. In order to use the search command, an index of the available documents must first be created.

The BKL was created with the intent of allowing easy searches of the archived volumes. It contains an index that is automatically available whenever the BKL is accessed. A search may be performed at any time while one is browsing the BKL. There are several different methods to access the search command, as shown in Exhibit 3.

Exhibit 3
Accessing the Search and Find features

Search	Find
Edit → Search → Select Query	Edit → Find
Ctrl + shift + F	Ctrl + F
Click binoculars on a page	Click binoculars
![binoculars icon]	![binoculars icon]

Using the Search and Find Functions

Once you have decided on using "search" or "find" (generally, "search" is better), the process of conducting an actual search is identical. Both begin by providing you with a dialog box. This box works similarly to most online search engines. It will search for any word or phrase that is entered and allows for the use of Boolean expressions. It will also accommodate "wild cards. "Unlike most online search engines, the Acrobat Search function is very literal with its searches. If a single word is entered, it will search for all occurrences of that word. If more than one word is entered, the search function will treat it as a phrase and look for the exact sequence of words in the papers. Exhibit 4 illustrates the basic search commands. In both Exhibit 4 and the discussion that follows, we will use brackets [ ] to denote material as you would actually enter it in the search dialog box. Thus, [simulation and gaming] means you would literally type the words simulation and gaming in the box. ["Simulation and gaming"] means you would type the same thing, but with quotation marks.

Exhibit 4: Search Commands

Search Example	Search Results
[simulation and gaming]	Treats [and] as a logical operator. Finds all papers that have both the word [simulation] as well as [gaming]
["simulation and gaming"]	Treats [and] as part of the phrase. Finds all papers that have the exact phrase. It does not find any variations on the words
[simulation gaming]	Finds all papers that have the exact phrase, as if they were enclosed in parentheses. It does not search for both words individually
[simulation or gaming]	Treats [or] as a logical operator. Finds all papers that have either the word [simulation] or [gaming] or both in it.
[simulation and not gaming]	Treats [and not] as a logical operator. Looks for all papers that have the word [simulation] but not the word [gaming] in it.
[simulation and not (gaming or role playing)]	Treats [gaming or role playing] as the object of the [and not] operator, yielding the same logical result as [simulation and not gaming or search and not role playing]
[?ree]	Will find all words that have 4 characters and end in "ree" (e.g. tree, free, etc)
[*ree]	Will find any word of any length that ends with the letters "ree" (e.g. tree, free, agree, three, etc)
[son-in-law]	Returns the same results as typing it in without hyphens, [son in law]

Boolean Operators

The search engine accommodates normal Boolean expressions (and, or, not). As you can see from the examples in Exhibit 4, they can be evoked by simply typing [and], [or], or [and not], [or not]. Thus, [achievement and motivation] will find any instances where "achievement" and "motivation" occur in the same document, whereas typing [achievement motivation] will return only instances where the phrase "achievement motivation" occurs.

[And] is always processed before [or], so [achievement or power and motivation] will first look for documents contain [power and motivation], then looking for documents that contain [achievement] instead of [achievement and motivation] – a search that yields 250 documents. If we were to search for [power or achievement and motivation] – simply reversing the order of [achievement or power] – we get a different result (385 documents, as it turns out). If we wanted to find documents that contained either [achievement] or [power] combined with [motivation], we could force this sequence by using parentheses, [(achievement or power) and motivation]. This yields 172 documents, and is equivalent to searching on [achievement and motivation or power and motivation]. It yields fewer documents

because it constrains both [achievement] and [power] to be combined with [motivation] in order to produce a hit.

As you can see, Boolean operators are not only powerful, but they can be made even more powerful with the judicious use of parentheses. For instance, suppose the purpose of the search were to find articles discussing ways to apply Atkinson and McClelland's achievement, power, and affiliation motivation model to experiential designs. A search for [Atkinson and McClelland] yields three documents. By searching on [Atkinson and McClelland or (achievement or power or affiliation) and motivation], we get 176. Searching [(achievement motivation or power motivation or affiliation motivation or Atkinson and McClelland) and experiential] we narrow the field back down to 27.

"Wild Cards" and Standard Search Conventions

As we have noted, the search function interprets strings of words literally. That is, the string [achievement motivation] yields the same result as ["achievement motivation"]. Adding quotation markets forces the search to consider a string as a phrase, even if it contains words that would otherwise be considered logical operators. [achievement and motivation] is not the same as ["achievement and motivation"].

We can build flexibility into string searches by using "wild cards" – symbols that can be used to represent an unspecified string of characters. The Adobe search engine uses two kinds of "wild cards." First, the asterisk can be used to represent an unspecified number of characters. For instance, when we search on [achievement and motivation], we get 112 hits. However, we might conceive of relevant studies speaking of "motivating

achievement," "motivated achievers," etc. If we modify the search using the * "wild card" to [achiev* and motiv*] we expand our initial pool of hits to 355.

The second "wild card" is the question mark. This is used to represent single, but unspecified characters. This yields a smaller search than the asterisk and is therefore preferable when one knows the exact number of letters that may be variable in your search. For example, suppose you are looking for work by Sandy Morgan. You don't know whether her name will be listed as "Sandy" or "Sandra." Furthermore, you cannot remember whether her name is spelled "Morgan" or "Morgen." You can search on [Sand* and Morg?n] (23 hits).

Searching by Title and Author

The BKL also provides the ability to search papers by title or author. This is one part of the search function that often needs to be activated manually before it can be used. The function is further complicated by the fact that different versions of Adobe Acrobat follow a somewhat different menu system. For instance, you may simply go to File → Preferences → Search. A new window should open entitled Acrobat Search Preferences. In this window, select the "show fields" tag so that the box now contains a check next to it, and close the window. In some versions of Adobe Acrobat Reader, you may turn on the same function by clicking Edit → Preferences→ General → Search, then clicking on "Document Information." In either case, the next time the search function is used; there will be additional fields available. The BKL does not support all the additional fields that this option makes available, but it does support the "Author" and "Title" search fields (see Exhibit 5).

Exhibit 5:
Acrobat Search dialog box (including fields for title and author searches
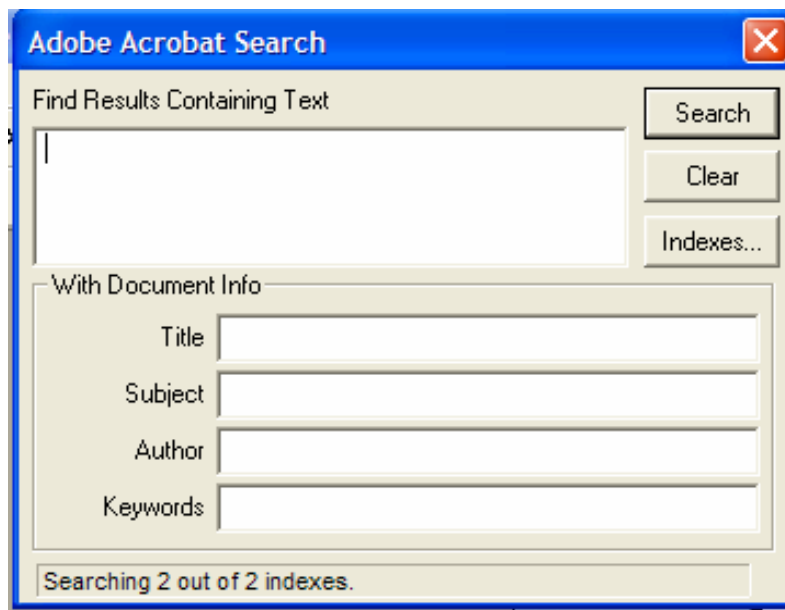
To illustrate, suppose you remember that Gentry and Burns did some work on the motivational effects of curiosity. You can't remember the other coauthors or the names of the papers. Therefore, you enter [Gentry and Burns] in the "Author" field and [curiosity AND motivation] in the text box. Your search, and subsequent results might be as shown in Exhibit 6. The search produced three articles. Two were articles addressing the "curiosity gap" directly, and the other a related article in which the authors discussed the issue of curiosity. We would have found one more article on "curiosity" if we had entered only [curiosity] into the text field, or [curiosity and motiv*]. We would have retrieved only two articles if we had entered [curiosity gap] into the text box rather than [curiosity AND motivation], or if we had entered [curiosity] into the "Title" field. If we had entered [Gentry AND Burns AND curiosity] into the text box rather than putting [Gentry and Burns] in the "Author" field, we would have retrieved seven articles, four of which referred to Gentry and Burns' work on "curiosity."

Exhibit 6:
Using Author Search with Test-Search Capabilities
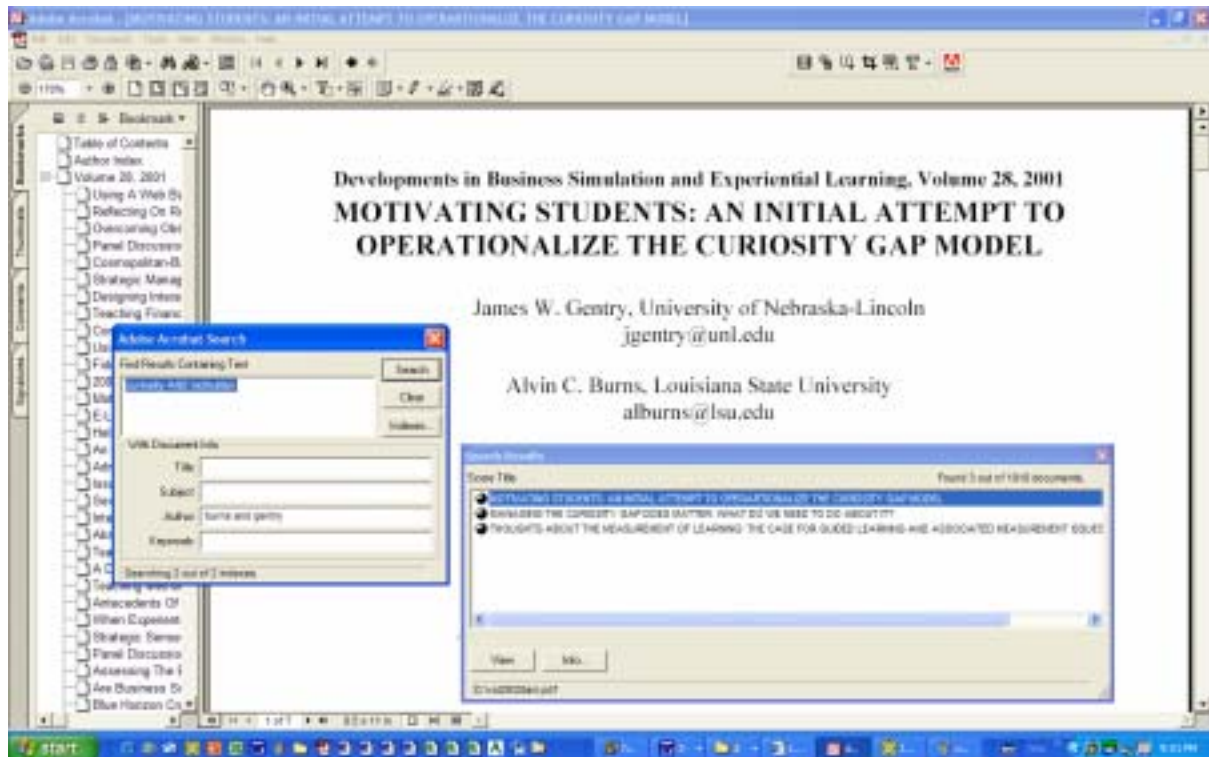
Refining a Search

Often, and initial search will prove clumsy and produce too many alternatives. The Adobe search function allows you to refine your search through subsequent iterations. Once you have obtained an initial set of results, you can hold down the ctrl key and the "Search" function will change to "Refine." This means that you next search will be limited to the results you obtained from the previous one. By using the "Refine" function, you can begin by broadly exploring a topic, continually refining your search until you find what you are looking for.

To illustrate, we can return to our study of student motivation in experiential exercises. To initiate our search, suppose we begin by searching for [motiv*] in the text box of the Search function, thus allowing the search to pick up variants such as "motive," "motivate," "motivation," and "motivational." This yields 629 articles – far too broad a set of results. So, you refine this by holding down the ctrl key and searching on [increas* motiv*]. This narrows your search to 12 articles, a more workable number.

There is no magic in the "Refine" function. The sequence of refinements we have just described ([motiv*] → [increas* motiv*]) yields the same result as searching on [motiv* AND increas* motiv*] or simply [increas* motiv*]. Using the "Refine" function is simply a convenience, allowing you to work sequentially, following a refining line of reasoning as you search. It also saves some time, because the search engine only has to search through the articles remaining after your prior search as you pursue each refinement. However, the search function works so quickly on the BKL that this provides little real advantage.

An Index of Search Quality

Each time a search is performed, the results are displayed in a separate window labeled "Search Results," as you can see in Exhibit 6. You may then read any of the papers by clicking on the "View" button in the lower left-hand corner of the window.

In order to help you decide which studies to consider, the search engine automatically sorts according to its evaluation of their relevance to your search, based on the search parameters

you have entered. The degree of "relevance" appears in a circle to the left of each article. A fully filled (black) circle indicates a high relevance while an empty (white) circle indicates low relevance. (See Exhibit 7).

Exhibit 7:
Button Indicators of Search Result "Relevance"

Factors determining the computer's judgment of "relevance" include such things as the appearance of the search term in the title, number of occurrences of the term in a single document, and the amount of separation between search terms within a document. Those searches that use the OR operator will show a higher relevance for papers that include both terms rather than just one or the other.

SEARCH STRATEGIES

The tools discussed above are relatively few, but powerful. Understanding the tools is a necessary but not sufficient condition for a quality search. In the end, the quality depends more on your search strategy than on the tools.

The BKL is a fully text searchable archive, including, among other things, papers presented at the annual ABSEL conference for the past 30 years. When we say, "fully text searchable," that means that everything on the page is indexed and available to be searched. This includes the volume title at the top of each paper and the reference list normally provided at the end. For most of the papers, the volume title has been, *Developments in Business Simulation and Experiential Learning*. This makes it difficult to search for words like "simulation" (found in 1,840 of the 1,918 documents in the 4th edition of the BKL), "experiential" (1,887 of the 1,918 documents), or "learning" (1,609 of the 1,918 documents). Those papers that do not include that title, might reference papers from one of the ABSEL volumes that do.

This was a problem noted by Howard and Strang (2003) in their recent review of ABSEL research. But this is not an issue limited to the BKL. This is a specialized library dedicated to different forms of learning, be it experiential or simulation. Thus, by their very nature, many papers will have these words embedded in the text, regardless of the title. Similar problems can be observed when searching any specialized archive. It would be rather pointless to search the *Journal of Marketing Research* with the word "marketing."

Fortunately, the examples we have used to illustrate the search tools suggest some search strategies you might use. In general, we have found that we have engaged in two basic kinds of searches. One is a search for an article or articles that we have read or heard about, but for which we do not have the specific reference. The second is a more general search of the literature on a particular topic, searching for articles that may exist, but about which we have no specific knowledge. The strategies for addressing these situations are related, but somewhat different. We will address them each in turn.

Searching for Specific Articles or Studies

Generally, when you begin your literature review, you are following up on a topic about which you already have some knowledge. Indeed, you often have read a paper, and maybe even have it somewhere in your files, but you can't remember enough to find it.

Using the BKL as a basis for your search, the obvious answer is to search for what you do remember. We have discussed several approaches that can be used, either singly or in combination:

1. *Search for author(s)*. We discussed the case of Gentry and Burns' work on "curiosity." If you only remembered the authors, or even just one of them, you could get there. Searching on [Gentry] in the "Author" field, you would get 44 hits and [Burns] would get you 37. Searching on [Gentry and Burns] together, you would get 14. With no other information but this, you could scan the articles and find the one(s) you wanted.

2. *Search for key word(s) in the title*. If all you remembered was that the article(s) had to do with "curiosity," you could search on [curiosity] in the "Title" field and immediately get two of the articles you wanted. Obviously, would be a good strategy, if you remembered the topic.

3. *Search for key word(s) in the text*. If the key word does not appear in the title, you can always resort to the text. Searching on [curiosity] in the text box yields 31 studies, but two of the studies we are seeking are the first two on the "Search Results" list, having been selected as most probable by the computer (presumably because "curiosity" appeared in the title).

4. *Search specific dated volumes*. One of the under-rated approaches to literature review is simply to browse tables of contents. The volumes of *Developments in Business Simulation and Experiential Learning* are all listed separately in the BKL (click on "Bookmarks" in the left margin, and then on the specific volume you want under the "Table of Contents" – see Exhibit 8). The table of contents can be browsed with little difficulty. The search is easier if you know the years the studies

Exhibit 8:
Accessing Specific Volumes from
the Table of Contents
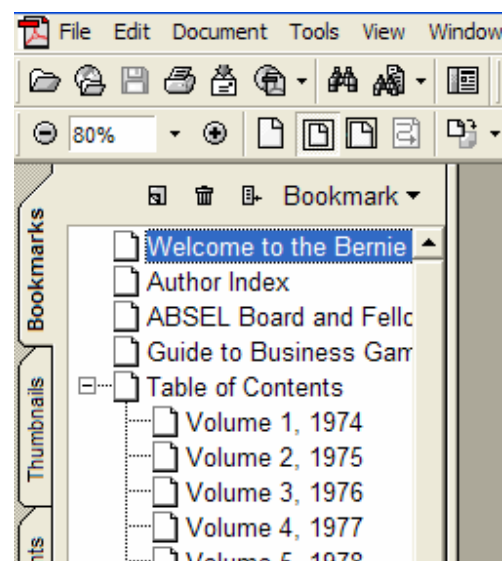
are likely to have appeared. For instance, remembering that Gentry and Burns presented studies on "curiosity" in 2001 and 2002, you need only scan the Tables of Contents until something catches your eye.

5. *Search the references cited in the studies you find*. Once you find at least one of the studies you are looking for, you can often use the references in that study to identify others. For instance, several of the Gentry and Burns "curiosity" studies refer to a paper published in *Simulation and Gaming*, which is not available in the BKL.

In actual practice, a search might be nowhere near this simple. Rather, you would try a number of approaches, scanning the results and refining your search as you encounter clues that jog your memory. In the end, searches that involve more than one of the three strategies we have listed are likely to be most effective.

A General Search Strategy

We have used the example of Gentry and Burns' work on "curiosity" to illustrate a search for specific articles. But what if our real interest were to study the role of motivation in the effectiveness of experiential learning? Gentry and Burns' "curiosity gap" represents one school of thought, but suppose we don't know about their work. And, what about others? How do they relate? These are all questions we would want to ask on the front end of our study. Using motivation as an example, we can discuss how a search strategy might develop. While each approach is a search strategy in itself, we have prioritized them to describe a larger, more general search strategy that can be used for studying virtually any topic.

Step 1: Search for key word(s) in the title. Generally, the most useful way to begin a general search is to look for key word(s) in the title of articles. Searching for [motivation] in the "Title" field of the "search" function, we get eight hits. This is a very workable number.

Step 2: Search for Key Articles Identified in Step 1. Reviewing the articles discovered in Step 1, we very quickly notice two things:

First, motivation is discussed in two entirely different contexts. One is using experiential learning to teach students about the concept of motivation and how it works in the business environment. The other discusses student motivation in experiential learning. Our interest is in the second of these two contexts, a topic addressed by three of the eight articles.

Second, the three articles represent three different schools of thought. One was a study by Butler and Parasurama discussing the role students' similarity in achievement motivation plays in motivating them. The second was a study by Brooks discussing the use of continual changes within a game environment to stimulate student interest – a concept very much akin to Gentry and Burns "curiosity gap." The third was a study by Yakonich,

Cannon, and Ternan using Lawler's integrative "expectancy-valence" model to explain student motivation.

Ideally, the articles retrieved at this stage should provide a good overview of the field. Reviewing them should provide a sense both of the key figures in the topic area and the major schools of thought, providing both names and key words for subsequent searches.

In this example, the articles provided only limited insight. They did identify three potential schools of thought. However, their literature reviews ranged from narrow to non-existent and provided little guidance for finding additional articles from the BKL.

Step 3: Search for Key Words in the Text of BKL Articles. Here is where the real work begins. Having picked the "low-hanging fruit" in steps 1 and 2, we would now gather together everything we know, and combine it with the search capabilities discussed earlier in this paper.

In this case, the most obvious place to begin is by searching on [motivation] using the text box of the search engine. Unfortunately, this yields 406 studies, more than we can effectively handle. Drawing on our insights from Steps 1 and 2, we need to look for a way of separating studies that discussion student motivation from those that discuss learning about motivation. "Student motivation" seems to address this need. Searching on [student motivation], we get 41 hits.

While 41 hits represent a lot of papers to review, scanning the titles suggests that we have struck pay-dirt. Many of the titles seem to address the very issue we are looking at. As we begin scanning the articles themselves, we quickly get a sense of what further actions we need to take. This, in essence, is a repeat of what we did in Step 1, looking for key words, authors and other clues to help refine future searches, utilizing the various tools we have discussed to tease out the information we need. However, the work is more in-depth, drawing more heavily on searches using the text box of the "search" function, as well as the "Author" and "Title" fields.

As a very practical matter, we would go through the articles one-by-one, scanning for schools of thought, key studies, and key authors. For instance, the first study from the "Search Results" list was a study by Catanello and Scheck, applying expectancy theory to student motivation, much as Yakonich, Cannon, and Ternan did. This suggests that we might search on [expectancy AND student motivation], a search that yields two hits – the Catanellow and Scheck and the Yakonich, Cannon, and Ternan studies.

Several items down the list, we find two of Gentry and Burns "curiosity" studies, pointing to another school of thought. And so the process continues. A complete description of the particular literature review is unnecessary for this paper, whose purpose it is to describe the basic process.

Exhibit 9:
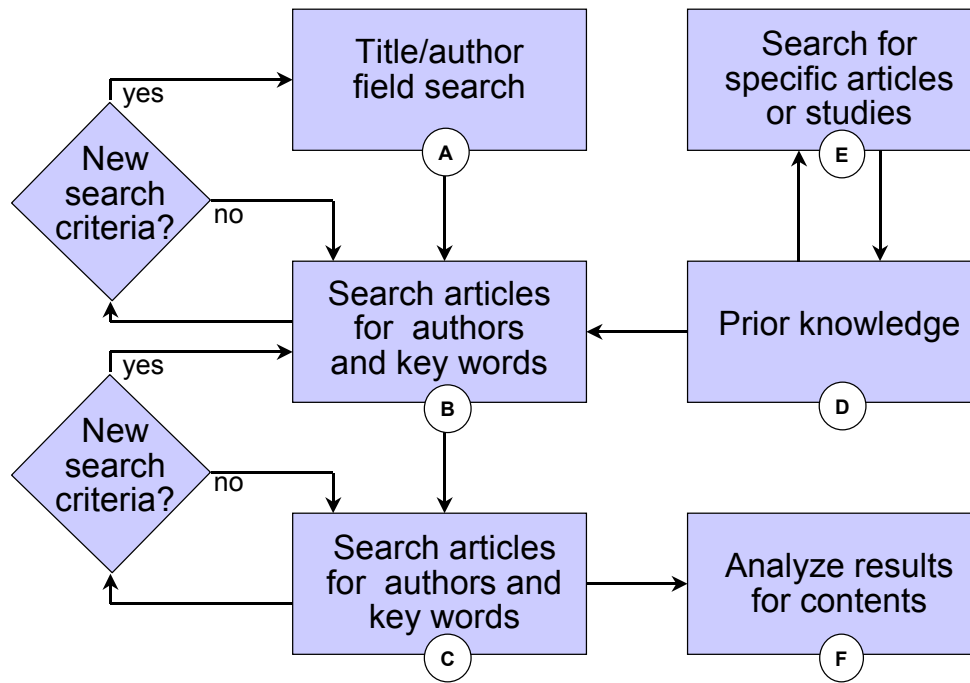*A Visual Representation of the General Search Process*

Exhibit 9 provides a visual representation of the iterative search process we are suggesting. Boxes A, B and C represent the three general steps – specialized searches using the "Title" and/or "Author" fields in the "search" function (Box A), the initial analysis of articles (Box B), and the search for additional literature using sophisticated text-search features (Box C). Both the search of articles for authors and key words (Box B) and the search of the BKL using text-search features (Box C) have loops taking them back to the previous boxes (Boxes A and B, respectively). If the analysis of articles in Box B reveals more authors and key words, we return to Box A to run more "Author" and "Title" searches; if the search activities in Box C identify new articles, we return to Box B to search the articles for new authors and/or key words. The loops continue until diminishing returns suggest that they are no longer productive.

Note that the process also draws articles from previous knowledge (Box D), referring back to the process discussed in our earlier section, "Searching for Specific Articles or Studies." Based on previous knowledge, we would look for specific articles or studies (Box E) that may prove useful in our larger literature review.

Finally, once we have reached diminishing returns on our search activities, we turn our attention to the actual literature review (Box F). Here, we would analyze the articles we have gathered for such things as schools of thought, previous studies addressing the same or similar issues, and theoretical concepts that might help us construct theoretical propositions.

SUMMARY AND CONCLUSIONS

While the BKL provides a valuable tool for research, it is only useful if it is used effectively. Part of the key to

effectiveness is simply in knowing the BKL's search capabilities. We have addressed them in this paper. We have also addressed a number of actual search strategies, including a general strategy for conducting a literature review in the relatively new field.

In the end, of course, the tools are no better than our skill in using them. The strategies we have discussed should prove useful, but they still depend on practice. But practice is part of what we must do anyway, just to write our papers. Presumably, the practice will help, and we will find ourselves doing better literature reviews in each successive paper.

As a final note, this paper should stimulate additional research. It outlines both a general literature review strategy and several very specific ones. However, the tools are sufficiently flexible to accommodate any number of different approaches. One useful line of research would be to present case studies, describing actual literature reviews and how they were accomplished.

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