Improving Information-Seeking Behaviors and Knowledge Bases for
Thesis Students in the Applied Behavior Analysis Graduate Program and
Students in the Rehabilitation and Mental Health Counseling Graduate Program

Video 3:   Backward and Forward Citations: Using Cited and Citing References

Let's say that you have found one article that really addresses your topic. Maybe the author examined a different population than the one you examined and has drawn similar conclusions. Perhaps the author has drawn completely opposite conclusions from yours, using similarly sound data. The logical thing to do is to look at the sources the author used – that is a backward citation, and then to look at those articles that cite the author's work – that is the forward citation.

Think of backward and forward as directions on a timeline with the article in question as the fixed point on the timeline. Note that these two concepts are not the same as "More like this" searches in PsycInfo. Any bibliography in an academic paper dealing with science or social science is a candidate for backward and forward citation research in ISI Web of Science.

Backward and forward citations have to do with the directions that research has come from and has gone to. In the annals of poor library technique is the unfortunate case of a researcher who did not look back far enough. In this case, they were looking through all the clinical trials for a particular drug so it could be released on the market. The researcher did not find an early study in which several people died. The result was the release of the drug and several preventable deaths. In another celebrated case, researchers had not done their forward citation work and discovered that a particular article had been repudiated. The same article pops up from time to time as part of an author's research paper. Not only does the research paper crash and burn, but the author/researcher's reputation and credibility are damaged.

So, as a brilliant researcher, how do you avoid these catastrophic failures? Let's look at one of the USF Libraries' databases: the Web of Science (WoS), which indexes approximately 8500 top impact journals across numerous academic and research disciplines and time spans.

Web of Science is not the same tool as Web of Knowledge. Click on the tabs at the top of the search box and read about the features of the ISI Web of Knowledge databank. Web of Knowledge includes Web of Science, as well as Current Contact Connect and Journal Citation Reports. Current Contact Connect is a window on the table of contents by issue in academic journals and websites. Journal Citation Reports ranks journals based on impact and influence using an algorithm based on number of citations.

So, back to Web of Science and backward and forward citations.

Let's do a citation search on the article, *Post-traumatic stress reactions in children of war,* by authors Thabet and Vostanis, published in 1999, in the *Journal of Child Psychology and Psychiatry and Allied Disciplines.*

[Citation: Thabet, A., & Vostanis, P. (1999). Post-traumatic stress reactions in children of war. *Journal of Child Psychology and Psychiatry and Allied Disciplines, 40*(3), 358-391.]

Select Web of Science as the database to search. You can either search for the article as a simple search or run a cited author search. If the article is indexed in Web of Science, it will show up in a regular search. If it is not indexed but cited in another indexed article, it will show up only in a cited reference search.

Let's assume the article is indexed in Web of Science. Paste the title of the article in the first search box and select Title. Type or paste 'Thabet A' in the second field as Author. Two articles come up. The one you want is the second in the list.

Pulling up the article brings up a link to the number of times the article has been cited and a link to the bibliography.

Click on "Times Cited: 58" to see who has cited the 1999 paper, in what journals, in what fields, what the titles of those papers were, and what are the themes of those papers.

In this case, war exposure among children in war zones is the predominant theme, and the nationalities of children include Bosnia-Herzegovina, Croatia, Cambodia, Sierra-Leone, Uganda, Rwanda, Turkey, Afghanistan, Sri Lanka, Palestine, and Israel. The traumatic events include terrorist attacks, home demolition, hurricanes, shipwreck, bereavement, domestic and community violence, sniper attacks at school, earthquake, and war.

Notice that each of the citing articles is also mapped to those articles that are citing them. You can drill down a number of layers to capture pertinent information by following a citation forwards, as well as backwards.

For articles that pertain to your particular research topic, a further backward search is required. You may want to limit your research to a specific age group of children, a particular nationality, or a specific traumatic situation. Narrowing your topic will narrow your research.

What do you do if your author's name is common, like Thomas Smith? To the left of the search results screen is a list of subject areas that pertain to the research results. If you have papers by an author with a common name, you may be able to narrow your search and find your particular author by the Subject Areas on the left.

Note there are reviews under document types. Reading reviews is a great way to get an overview of your topic and discover the major players in the field.

Now click to see the References, which is a list of all 48 sources consulted and referenced in the paper. All the abbreviated citations have checkboxes. Some have the article titles. Those titles are indexed in Web of Science. You can pull them up and review each to see if the article is relevant for further review and to see who cited it, as well as its bibliography.

If you check the boxes next to an article, WoS pulls up the related records for that specific reference. This is a wonderful way to pull up articles that are not indexed in WoS, using the related records feature. The related records feature works on the notion of shared references.

Let's just check the box for one article:

4. AHMAD A
NORD J PSYCHIAT 46: 314 1992

I see that Ahmad wrote on the symptoms of post-traumatic stress disorder among displaced Kurdish children.

If you ask for a related records search on all of the references in Thabet and Vostanis' article, you end up with over 62,000 articles.

In the column to the left, there are options to refine your results. You can limit by subject areas, document types, authors, journal titles, publication years, institutions, funding agencies, languages, and countries/territories. If you limit just to clinical psychology, the number drops to just over 200.

However, a blanket 'find all' defeats the purpose of critically looking at the references before running that request. For example, you probably don't want the DSM, the first two references in Thabet & Vostanis' reference list.

Backward citation looks at the sources of the bibliographic entries for a paper, looking back and back further until the names of the major players and themes of their research emerge. A search in Web of Knowledge for Einstein A as author and 1917 brought up a paper entitled *Quantum theory of radiation*, which was cited 781 times. The backwards search on this same paper reveals two sources. No related sources for these two bibliographic entries were found.

ISI Web of Knowledge can generate a citation map for you either backwards, forwards, or both combined. Look for the Citation Map button. On the same page as the map is the author, journal, and article title that cited Einstein's paper. The forward cited reference search on the 1917 paper revealed 762 citations, including a paper by Niels Bohr in the German journal about Natural Science.

The point of this exercise has been to demonstrate the use of citation maps and the massive work involved in backward and forward citation research. The good news is, this work used to be exponentially more time consuming when one had to find paper copies of cited work. The moral of the story is: Be sure to allow sufficient time to do the citation analysis phase of your research.

Note that ISI Web of Science lets you mark citations for export to a bibliographic database. A bibliography of all your research results, with abstract and journal citations, is a powerful tool when it comes time to review your results and to write your paper, track which articles you have requested from interlibrary loan, or to see where you placed the .pdf of the article. This is explained further in a video on citation management programs in this series.

As always, plan your research before you get to the library or consult with a librarian. Once there, keep track of your research: when, what database, what terms, what results you obtain, and what decisions you make. Like so many other endeavors, research is a process, not a destination. Know where you want to go, how you laid out a direction to get there, what happened when you took a specific path, and why you decided on the next course of action.

Contact us at FMHILibrary@usf.edu.

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