Research Methods

Keyword in Context: A Primer

Originally named by an IBM engineer, keyword in context (KWIC) is an analysis method that looks at a word and its every utterance in a text to **find out its meaning and usage**. (1) Looking at a word in all of its contexts allows for analyzing what the word might mean to a group of interviewees, how the word is used by a writer, or just the various ways the meaning can change depending on the word's context.

KWIC is essentially the same as control + finding a word in a text but when used in an analysis program, allows for automation. KWIC is inspired by concordances, originally an alphabetical listing of all the times a word appeared in a religious text or other corpus. In the example above from RiTA, a computational program for literature, the word window is entered as the search term. (2)

You have choices when utilizing KWIC. Bernard et al. provide the example of the word "deconstruction" used in anthropology The KWIC analysis revealed that Wright used the word "deconstructing" to mean a tool, both the process and results of analysis, and a theory. (3) Searching only for "deconstruction" misses the uses of the words "deconstructs" and "deconstructing" but in this case, clearly deconstruction indicates importance of the word and its meanings to Wright (4)

Similarly, you must choose just how much context to pull from when doing a KWIC analysis. KWIC within a few words might indicate what other words appear alongside the key word, while KWIC within a sentence provides more information about each time the word is used. KWIC in a paragraph provides the most context.

Thus, the ability to use KWIC in an advantageous manner requires you to think through how the key word and its surroundings may influence conclusions about the key word itself.
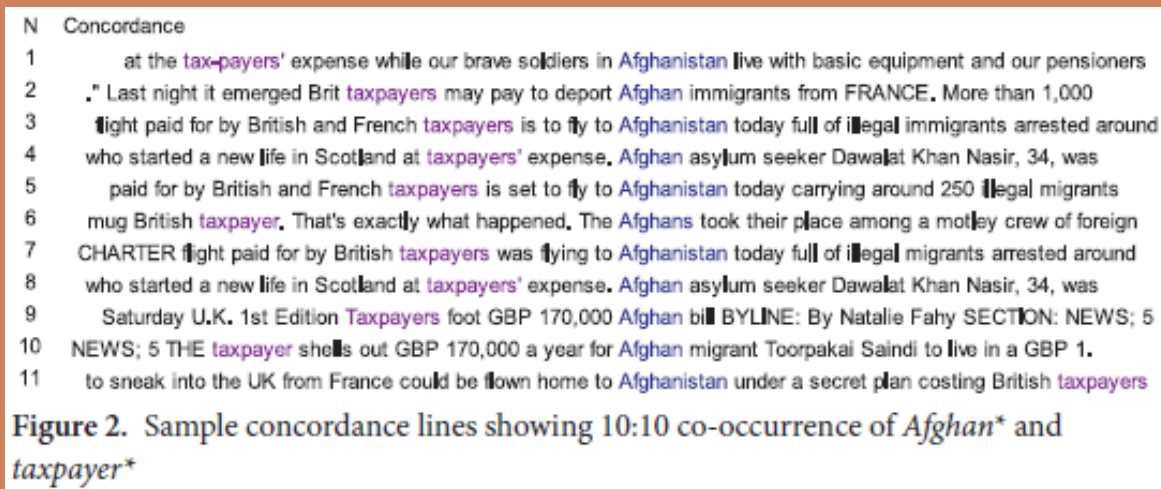
KWIC in Human Research

"web of connectivity between people, places, ideas, technologies, and values"-
Society for Cultural Anthropology

KWIC provides a quick glimpse of how many times a specific word appears in an interview or texts and if performed across multiple interviews or texts, can reveal important themes. As the Society for Cultural Anthropology states, a key word is a "web of connectivity between people, places, ideas, technologies, and values." (5) This analysis method reveals shared but unspoken cultural assumptions and other deeper meanings of a word. which is important in any human research!

For example, two different researchers ran KWIC analysis to ascertain the representation of migrants in Europe. Charlotte Taylor focused on Italian and UK press articles, first identifying the number of references to nationalities that collocate with various terms. The term "tax-payers" with "Afghan" indicated a belief in the press that Afghans were misusing tax-payer money (example below). (6) The assessment of collocation allowed her to identify mismatches between the amount of attention migrants received and their population estimates. Taylor then analyzed the representations of such groups through the moral panic framework. The results showed that an extensive negative representation existed for some groups! (7)

N	Concordance
1	at the tax-payers' expense while our brave soldiers in Afghanistan live with basic equipment and our pensioners
2	." Last night it emerged Brit taxpayers may pay to deport Afghan immigrants from FRANCE. More than 1,000
3	flight paid for by British and French taxpayers is to fly to Afghanistan today full of illegal immigrants arrested around
4	who started a new life in Scotland at taxpayers' expense. Afghan asylum seeker Dawalat Khan Nasir, 34, was
5	paid for by British and French taxpayers is set to fly to Afghanistan today carrying around 250 illegal migrants
6	mug British taxpayer. That's exactly what happened. The Afghans took their place among a motley crew of foreign
7	CHARTER flight paid for by British taxpayers was flying to Afghanistan today full of illegal migrants arrested around
8	who started a new life in Scotland at taxpayers' expense. Afghan asylum seeker Dawalat Khan Nasir, 34, was
9	Saturday U.K. 1st Edition Taxpayers foot GBP 170,000 Afghan bill BYLINE: By Natalie Fahy SECTION: NEWS; 5
10	NEWS; 5 THE taxpayer shells out GBP 170,000 a year for Afghan migrant Toorpakai Saindi to live in a GBP 1.
11	to sneak into the UK from France could be flown home to Afghanistan under a secret plan costing British taxpayers

Figure 2. Sample concordance lines showing 10:10 co-occurrence of *Afghan** and *taxpayer**

A second analysis focused on German newspapers by Janet Fuller found that the terms used by reporters constructed essential social categories in relation to ethnic background. This construction made integration for members of those groups impossible. (8) Both authors reference their KWIC analysis with Taylor including screenshots of certain KWIC searches and Fuller reprinting long quotes from the news articles used for her search. Both are equally successful ways to present the information to the viewer.
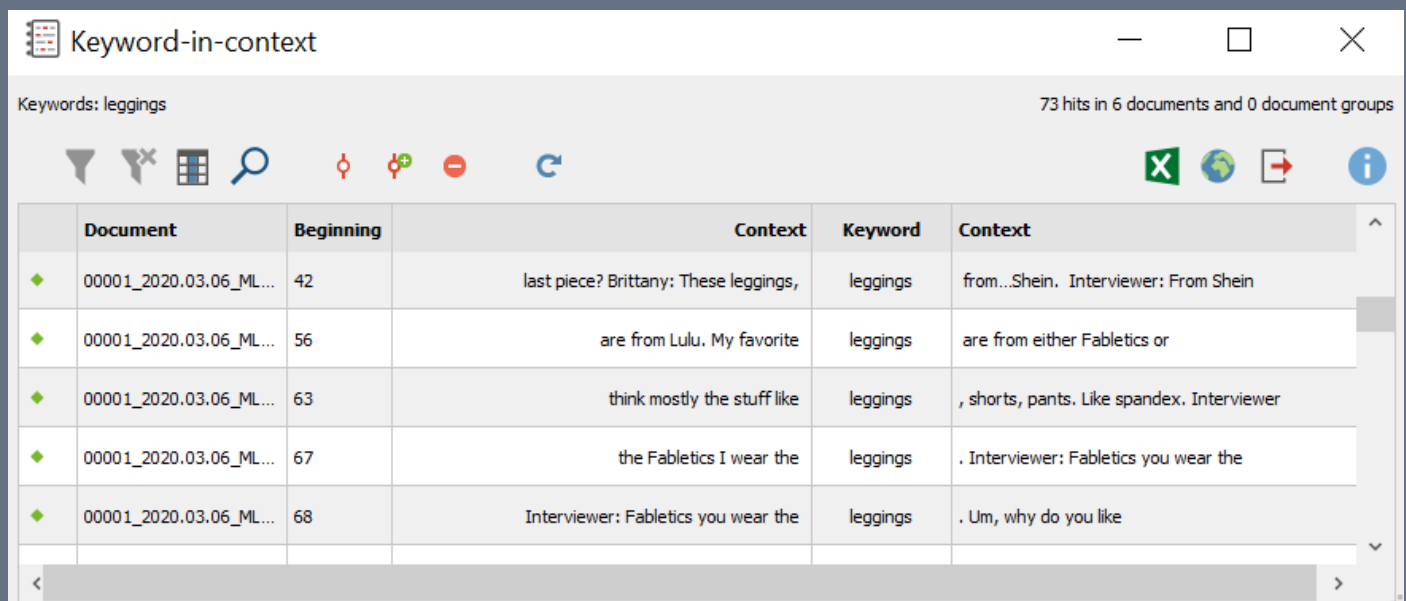
Tools to KWIC Successfully

Multiple programs can perform KWIC analysis and if you cannot access a free program that does everything that you want, you can still do it manually. Control+find the keyword and print it and its surrounding words line by line. Then cut and paste each line onto cards that you can sort manually. into themes

Here, MAXQDA's KWIC analysis is briefly outlined. (8)

MAXQDA's Keyword-in-Context feature allows researchers to search for any terms deemed relevant and view them in a tabular overview including the word's respective contexts. A great feature of using a program for KWIC is that you can search for words with or without checking "case sensitive." If checked, than the search for "Window" would not bring up the lowercase form "window."

MAXQDA allows you to specify the number of words to include before and after the keyword and to find whole words so the search for "to" does not find "into." Once the search is complete, MAXQDA provides a result table (class example below) that you can export to an HTML or Excel file!

Keyword-in-context

Keywords: leggings   73 hits in 6 documents and 0 document groups

	Document	Beginning	Context	Keyword	Context
◆	00001_2020.03.06_ML...	42	last piece? Brittany: These leggings,	leggings	from...Shein. Interviewer: From Shein
◆	00001_2020.03.06_ML...	56	are from Lulu. My favorite	leggings	are from either Fabletics or
◆	00001_2020.03.06_ML...	63	think mostly the stuff like	leggings	, shorts, pants. Like spandex. Interviewer
◆	00001_2020.03.06_ML...	67	the Fabletics I wear the	leggings	. Interviewer: Fabletics you wear the
◆	00001_2020.03.06_ML...	68	Interviewer: Fabletics you wear the	leggings	. Um, why do you like

You can also filter the results by document, beginning line, context before and after the keyword, search within the results as well.

Lastly, you can autocode the results with an existing or new code.

Where to Learn More

Works Cited:

1, 3, 4: Bernard, H. Russell, Amber Wutich, and Gery Wayne Ryan. *Analyzing Qualitative Data: Systematic Approache*s. Thousand Oaks, CA: SAGE, 2017.

2. Howe, DC. "Concordance and Key-Word-In-Context." RiTa. Accessed March 27, 2020. https://rednoise.org/rita/tutorial/concordance.php.

5. Donovan, Joan. "Keyword." Society for Cultural Anthropology, March 28, 2018. https://culanth.org/fieldsights/keyword.

6, 7 Taylor, Charlotte. "Investigating the Representation of Migrants in the UK and Italian Press: A Cross-Linguistic Corpus-Assisted Discourse Analysis." *International Journal of Corpus Linguistics* 19, no. 3 (2014): 368–400. https://doi.org/10.1075/ijcl.19.3.03tay.

8. Fuller, Janet M. "Immigration, Integration and Leitkultur in German Newspapers: Competing Discourses about National Belonging." *Studii De Lingvistică*, August 2018, 175–89.

9. "Keyword-in-Context - MAXQDA - The Art of Data Analysis." MAXQDA. Accessed March 27, 2020. https://www.maxqda.com/help-mx20-dictio/keyword-in-context.

Other Resources

Tribble, C. 2010. What are concordances and how are they used? In The Routledge Handbook of Corpus Linguistics, A. O'Keefe and M. McCarthy, eds, 167–83. New York: Routledge.

Weber, R. P. 1990. Basic Content Analysis, 2d ed. Newbury Park, CA: Sage.

Yaghoubi-Notash, M., and M. Janghi-Golezani. 2013. From frequency to instructional order: Insights from a narrow-angle corpus of psychology RA introductions. Theory and Practice in Language Studies 3:1034–39.

Authored by Nusaiba Chowdhury