

Using “Qualitative” Data Analysis Software for “Mixed-methods” Research. Is It Possible?*

By Neville Li July 28, 2014

To clarify, the purpose of this article is NOT to explain what mixed-methods research is and the different designs (e.g., explanatory, exploratory, parallel, sequential, oscillating). I have done these presentations elsewhere. The intent here is to use a few hundred words to overview the WHAT, WHAT NOT, and HOW of using the three most popular Qualitative Data Analysis (QDA) software – ATLAS.ti, NVivo, and MAXQDA – for mixed-methods research. So, here it is:



atlas.ti

A) ATLAS.ti for Windows and for Mac

Mixed-methods Functions:

Word Cruncher – to count the word occurrences and frequencies in one primary document (or source) or in multiple documents and visualize them as an excel spreadsheet or as a Word Cloud.

Query Tool – to stratify coded segments with demographic characteristics and visualize as a table or as a list of quotations (or codings) for team meetings or individual analysis.

Code-cooccurrence Table – to explore your coding very deeply by using boolean, proximity or semantics operators to search for coding intersections between codes. Results are shown in a table with numbers indicating instances of quotations coded to two codes.

Codes-Primary Documents Table – to cross-tabulate your data sources and your codes and visualizing it as a table or as actual quotations. Question you can ask, for example: What do female respondents in Brazil who are community workers think about children and happiness?

Conclusion: These functions are helpful in assisting with mixed-methods research and the qualitative-quantitative to-and-froing that it demands. They are embedded under the *Analysis Tool* in the main toolbar.



B) NVivo for Windows and for Mac

Mixed-methods Functions:

Word Frequency Query – to search for specific words,onyms or words with the same roots in one document or any combination of your documents. Results are displayed as an excel table, a word cloud, a tree map or a cluster analysis diagram.

Coding Matrix Query – to cross-tabulate coding vs. coding or participant attributes vs. coding. Results can be exported as an excel table or as actual codings as a text document. Questions you can ask: What do male participants aged 55 and above think about environmental change in a coastal community?

Conclusion: These functions are useful for researchers who would like to quantify their qualitative data to some extent. They are all found under the *Query* tab in the main toolbar or the *Query Wizard*.



C) MAXQDA for Windows and for Mac

Mixed-methods Functions:

Crosstabs – to count the number of times each code is used in a document or in all documents that have certain assigned variables. This can be useful in knowing what participants with particular attributes such as gender, place of abode say about a topic, both as numbers and as actual coding.

Quote Matrix – to compare coded segments for two demographic groups right next to each other in a table. Question you can ask: What are the differences between opinions voiced by health care providers and community users in a certain service?

MAXDictio Word Frequency – This MAXQDAplus function (not included in the basic MAXQDA license) allows you to search for words in one or a combination of your documents and show the number of occurrence and locations of those words. Results are presented in a table or as actual coded segments.

Conclusion: These functions are useful in assisting with a mixed-methods project. They are stored under the *Mixed methods* tab and the *MAXDictio* tab in the main toolbar.

As you can see, all three software programs have built-in functions for counting word frequencies, counting the number of coded segments by codes by participant characteristics, and counting the number of quotes by codes in one or more of your source documents. They are just hidden under different tabs. Some functions, such as coding comparison between coders, involve a full page of kappa statistics and percentage agreement numbers but that does NOT warrant them as important mixed-methods tools; those numbers help with enhancing consistency in coding but do not contribute to the methodological soundness of your mixed methods design, i.e., how to integrate qualitative and quantitative data to make them “talk” to each other in a single project. Also, these tools make it much easier to deal with the technical part of analyzing mixed-methods data, but the conceptual part of designing and integrating both traditions of data analyses still lies in the hands of the researchers themselves.

* In a future modified version of this document, I will use screenshots of the software programs to better visually illustrate the functions.

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