



# Spotlight Session - Using Visualizations as an Analytical Tool

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## Literature:

Henderson, S., & Segal, E. H. (2013). Visualizing qualitative data in evaluation research. In T. Azzam & S. Evergreen (Eds.), *Data visualization, part 1. New Directions for Evaluation*, 139, 53–71.

Miles, Matthew B./Huberman, Michael A. (1994): *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks: Sage.

Strauss, Anselm L. (1987): *Qualitative analysis for social scientists*. Cambridge: Cambridge University Press.

Tufte, Edward R. (2001): *The Visual Display of Quantitative Information*. Ceshire: Graphics Press.

Wheeldon, Johannes/Åhlberg, Mauri K. (2012): *Visualizing Social Science Research. Maps, Methods, & Meaning*. Thousand Oaks [u.a.]: Sage.

Woolf, Nicholas H. & Silver, Christina (2017): *Qualitative Analysis using MAXQDA. The five level QDA Method*", Routledge.



## Code Matrix Browser

- Open the MAXQDA example project „Life Satisfaction“.
- Activate all interviews in the document groups “New York” and “Indiana” as well as the code “People” with its sub-codes. Then use **Visual Tools > Code Matrix Browser**. Take a look at the frequencies of the coded segments of the codes using the ‘123’ icon. This, or the binarized overview, can be exported to Excel and to any other statistical data package. This is how MAXQDA quantifies the qualitative data.
- Answer the question: Which interview covers the majority of coded segments for these codes?

Code System	George	Joanna	Jon	Kim	Mary	Teresa	Vincent	Grace	Kelly	Jack	SUM
▼ <input checked="" type="checkbox"/> People											0
<input checked="" type="checkbox"/> Grandparents	1	1					3		1		6
<input checked="" type="checkbox"/> Parents	6	7	2	4	4	4	11	8	2	7	55
<input checked="" type="checkbox"/> Siblings	3				1		2	1	3	2	12
<input checked="" type="checkbox"/> Friends	6	2		17	2		3	4	6	6	46
<input checked="" type="checkbox"/> Partner										1	1
Σ SUM	16	10	2	21	7	4	19	13	12	16	120

- You can easily see, which qualitative information lies behind the nodes, squares or numbers by double clicking on these. Check the “Retrieved Segments” window for the coded passages.
- Another way to do this is by using MAXQDA’s Interactive Quote Matrix.

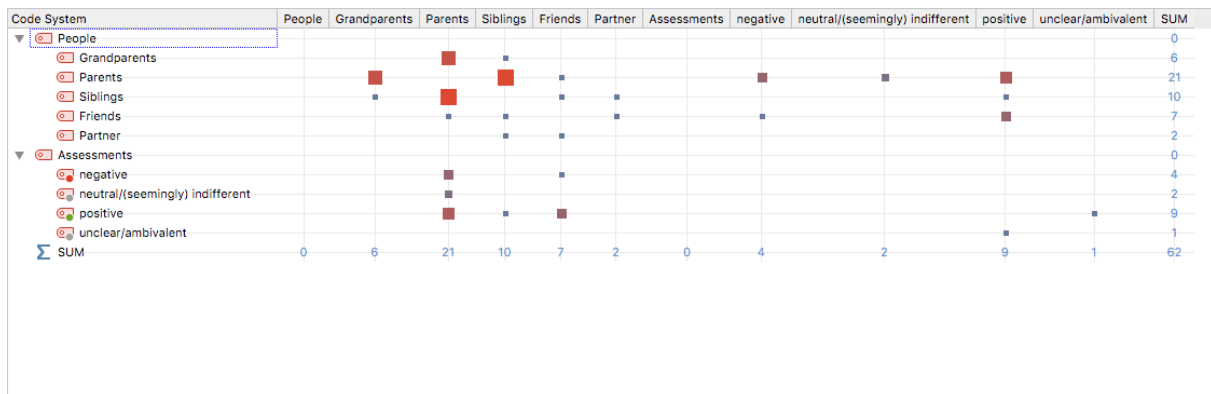
The Code Matrix Browser is a perfect analytical tool since you can check your documents or codes for:

- a) Saturation. Did I use every code in every document? If not, why not?
- b) Patterns. Is there an obvious similarity between documents that might be a pattern?
- c) Frequencies. Having these frequencies enables you to crosscheck your findings by using a statistical model in the sense of mixed methods.



## Code Relations Browser

- The Code Relations Browser enables you to analyze your codes' relations in terms of co-occurrence or closeness.
- Let's take a look at the relations between the code "People" and its sub-codes and the code "Assessments" and its sub-codes for the interview data. Is there a pattern? Is a family member more often mentioned in positive terms than a friend?
- Activate all interviews in the document groups "New York" and "Indiana" as well as the code "People" with its sub codes and "Assessments" and its sub-codes. Then use **Visual Tools > Code Relations Browser**.

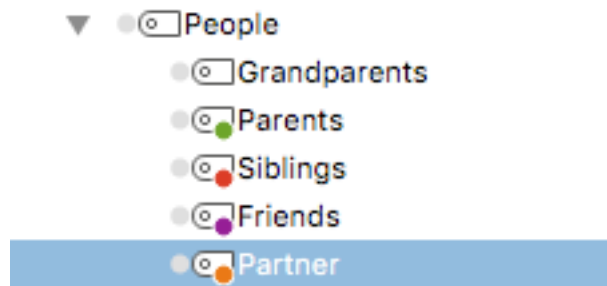


- As you can see, parents, grandparents and siblings are often mentioned in the same coded segments since they co-occur.
- Further, the "Parents" code is more often linked with positive assessments than with negative assessments but also quite often with the latter. A similar result can be seen for the code "Friends".
- Switch to 'Near (codes)' in 5 paragraphs. What changes?
- What happens if you double click a node?

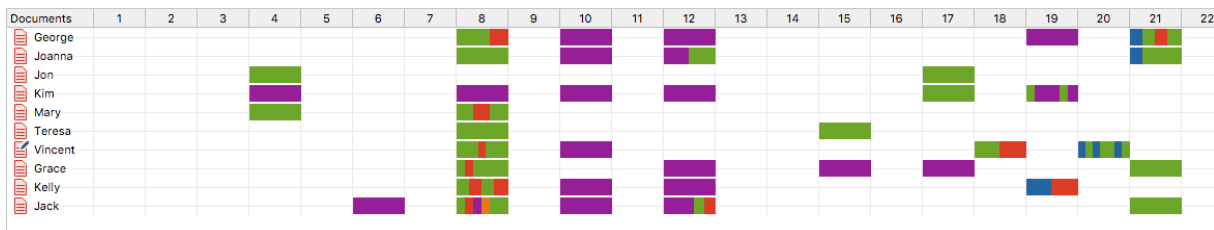


## Document Comparison Chart

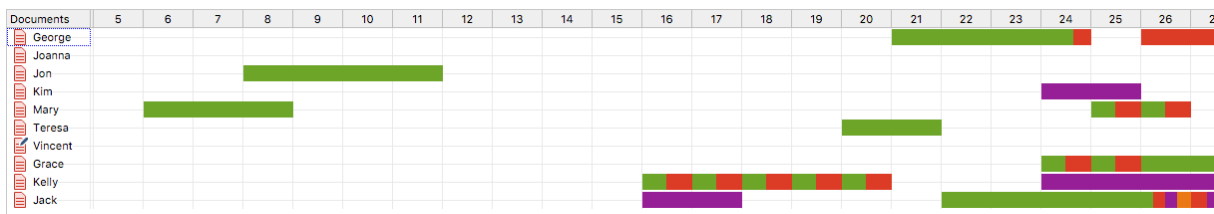
- To use this tool, the codes you are interested in need to have different colors.
- Let's change the colors for the code "People" and its sub codes in the following way:



- Activate the codes mentioned above and all interviews in the document groups "New York" and "Indiana".
- Now, use **Visual tools > Document Comparison Chart**. You can see that certain questions correlate with the same codes but there are also some interesting deviances from this fact. See paragraph 8 and 12 for example.



- You can also standardize the text length. What changes?

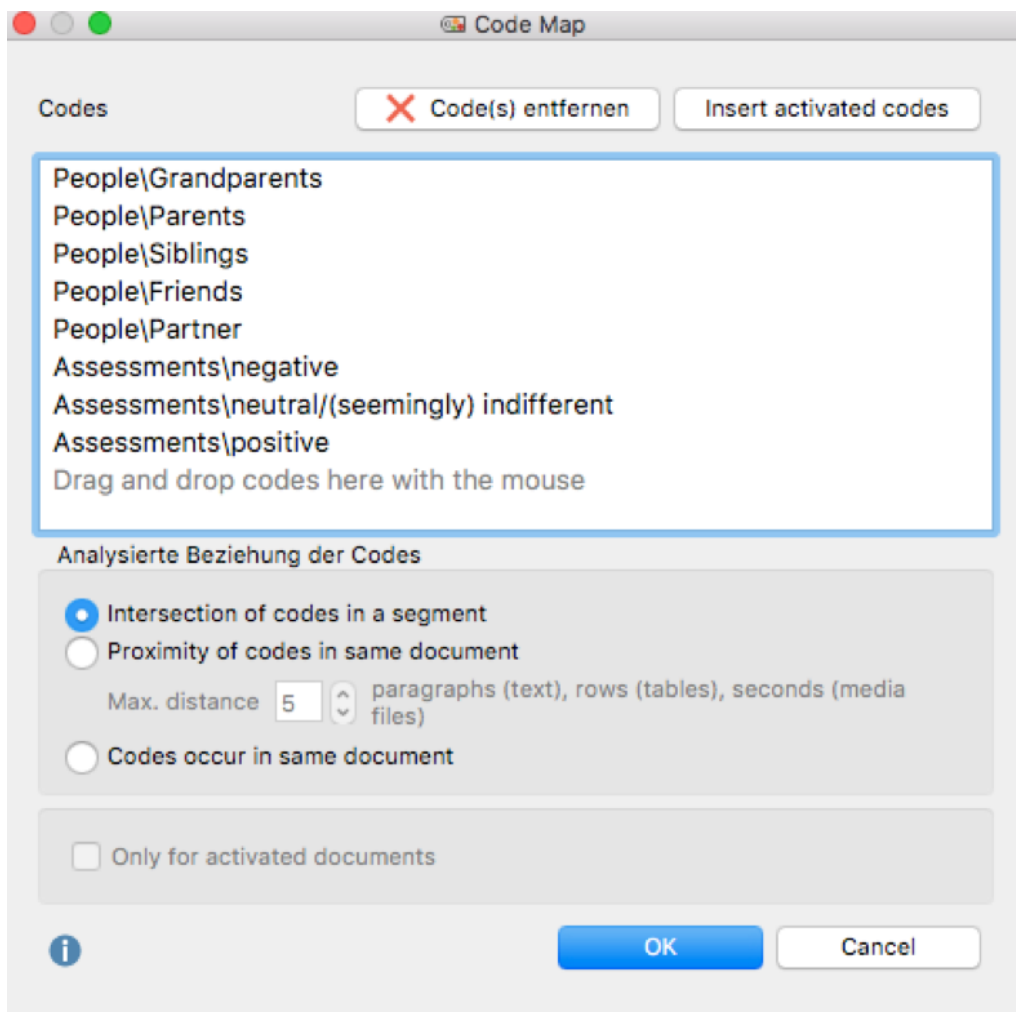


- What happens if you double click the paragraphs?



## Code Map

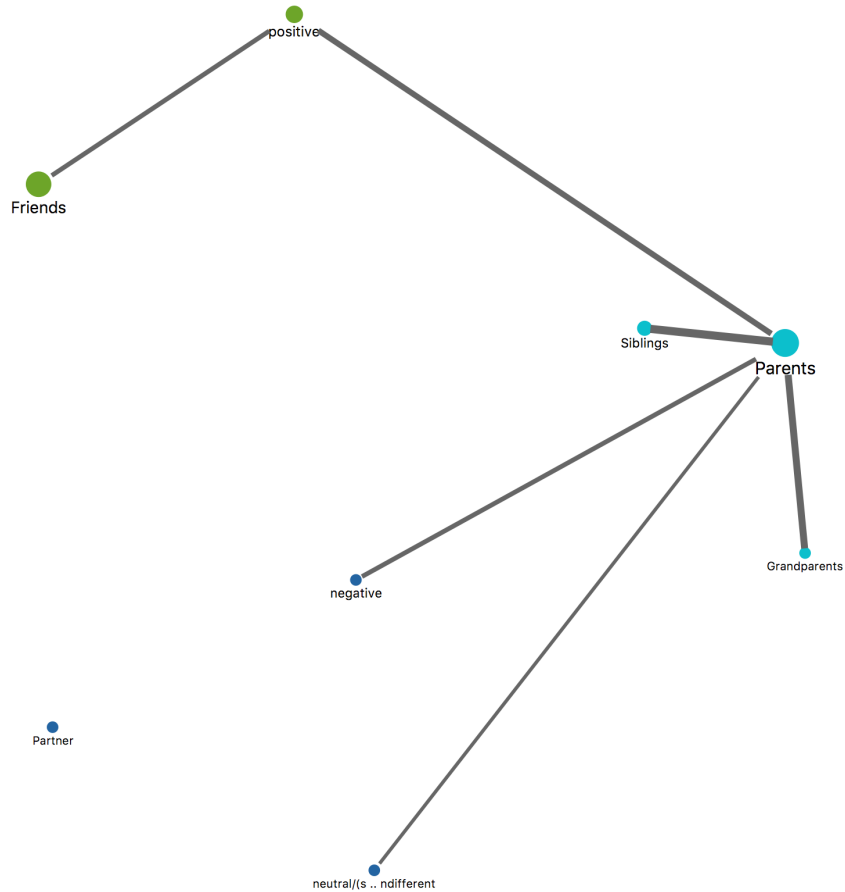
- This very new tool compares the similarity of codes. The more two codes overlap, i.e. the more similar they are in terms of their use in the data, the closer they are placed together on the map.
- To use this tool, click on **Visual tools > Code Map** and drag the codes you are interested in into the box. We choose the following codes:



- You can change the relation of the codes to the analysis of the proximity at any time.



- If you click on OK, the following results will be shown:



- It tells us that parents are often coded together with negative assessments. There are no assessments regarding grandparents, siblings and partners. However, friends are positively assessed.
- You can now export this graph to the **MAXMaps** to change the size and order of the shown items or add new ones.