# Spotlight Session: Mixed Methods with MAXQDA

In mixed methods studies, both qualitative and quantitative data are collected and analyzed. MAXQDA provides numerous functions for evaluating both types of data separately:

| Analysis of qualitative data	Analysis of quantitative data
• **Data import** Texts, PDFs, tables, videos, webpages, social media, … • **Data exploration** Search for words and word combinations, memos, comments, paraphrases, … • **Data analysis** Coding, memoing, writing summaries, visual tools, … • **Reporting** Visual tools, exports, …	• **Frequency tables** • **Charts** Bar charts, boxplots, histograms • **Descriptive statistics** • **Crosstabs and correlation** • **Inference statistics** Analysis of variance, Chi-square-test, correlation • **Build a scale** • **Cluster analysis**

Kuckartz and Rädiker (2021, 2022) distinguish three forms of integration in mixed methods studies:
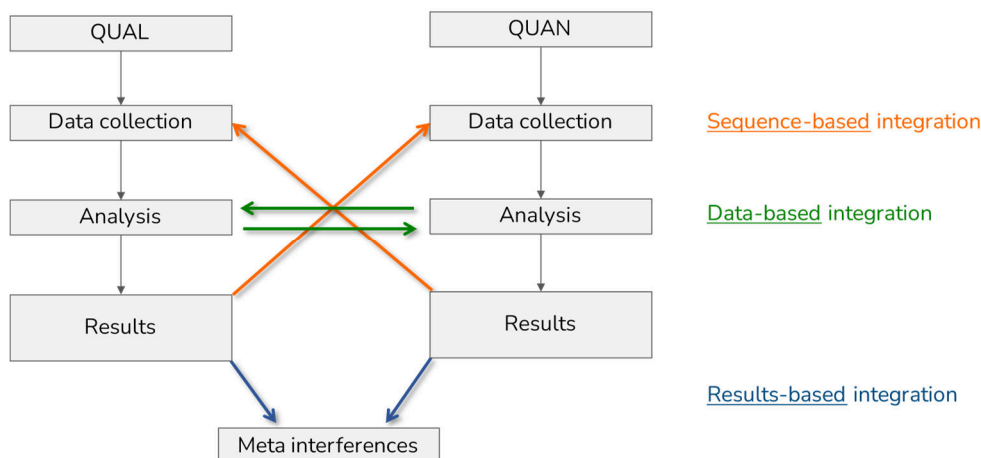
- *Sequence-based integration* occurs in sequential designs: the results of the qualitative or quantitative sub-study guide the subsequent sub-study, for example, the selection of cases or the development of an interview guideline or standardized questionnaire.

- *Data-based integration* requires that qualitative and quantitative data are available for at least some of the cases that can be matched on a case-by-case or group-by-group basis.

- *Results-based integration* can be performed in any mixed methods project.

MAXQDA provides functions for all of these integration variants, but its greatest strength lies in data-based integration, where qualitative and quantitative data are analyzed together.
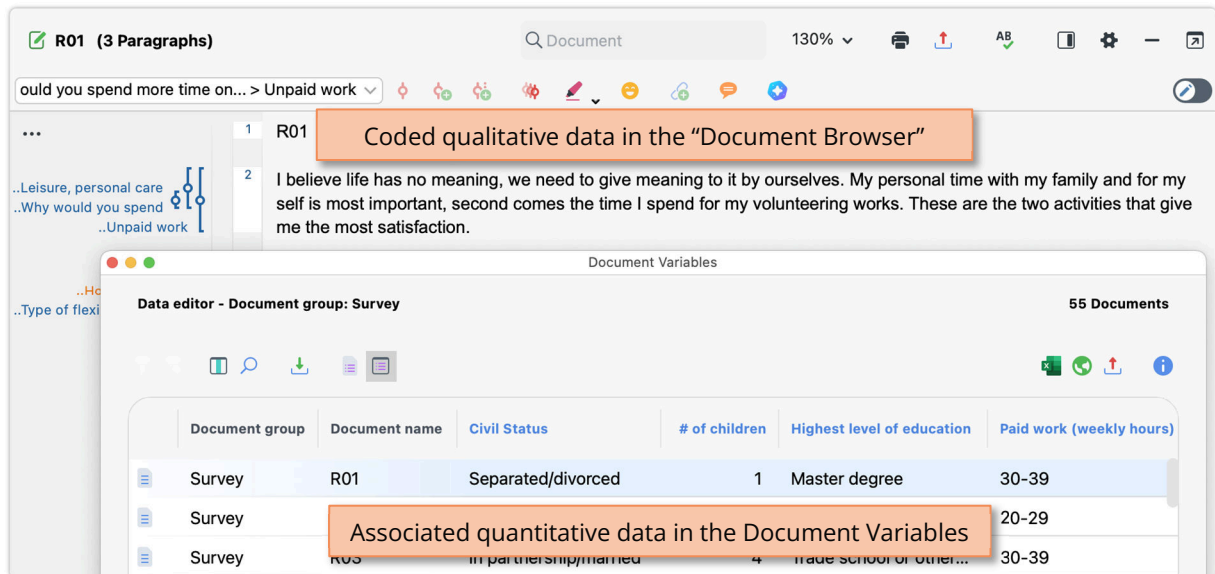
Most of the mixed methods functions can be found in MAXQDA's Mixed Methods menu tab:
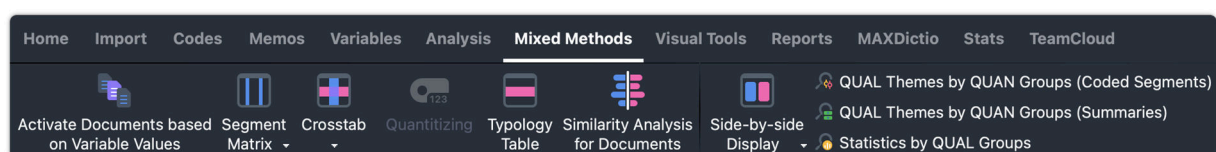
Tip: All mixed methods functions presented here can also be usefully applied in many qualitative projects, especially when standardized background information is available in the form of document variables in the MAXQDA project.

The Document Variables

MAXQDA's document variables provide a bridge between the qualitative and quantitative data: supplementary standardized data are available for the documents (that is, mostly the cases) of a project, for example, scale values are available for each person interviewed and, in the case of surveys, the answers to closed questions are available in addition to the answers to open questions:

Transform code into variable

Each code (qualitative) can be saved as a document variable (quantitative) that indicates how often the code was assigned in a document (right-click Code > Transform Code Frequencies into Document Variable or Mixed Methods > Quantitizing):
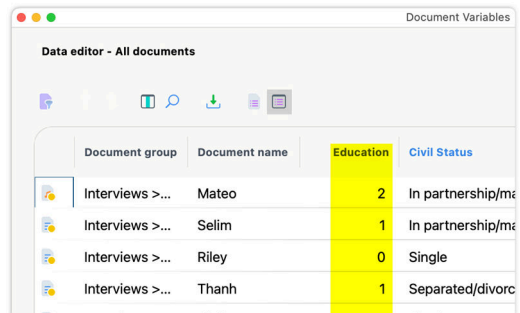

Variables created this way can be analyzed statistically or used for the selection of qualitative documents.

Activate Documents via Variables

The Mixed Methods > Activate Documents Based on Variable Values feature allows you to select documents or to save groupings of documents as document sets in the "Document System" for further analyses.

1) Create logical conditions with document variables

2) Activate documents or create new document
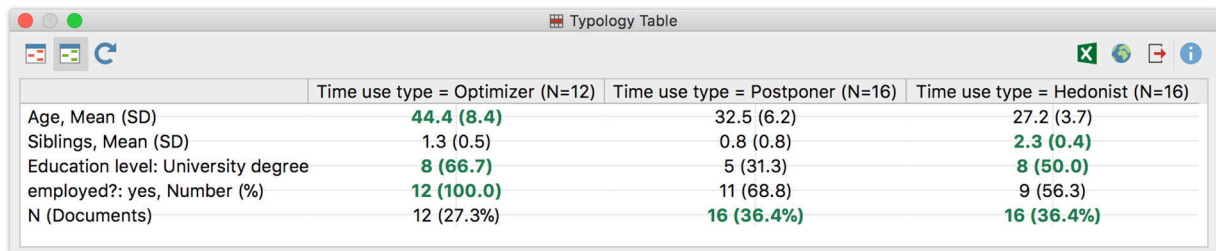
Document set containing documents that meet the conditions
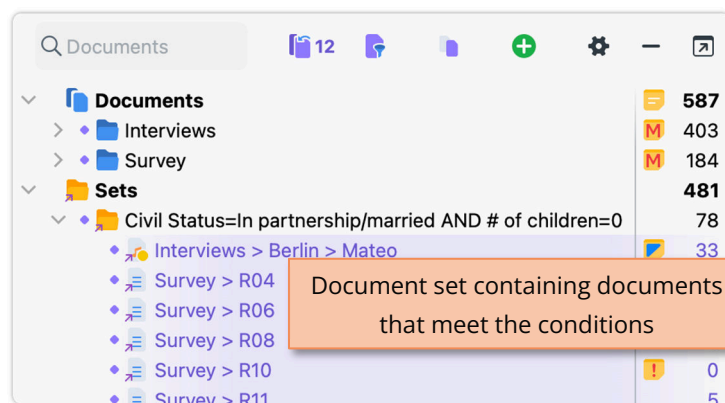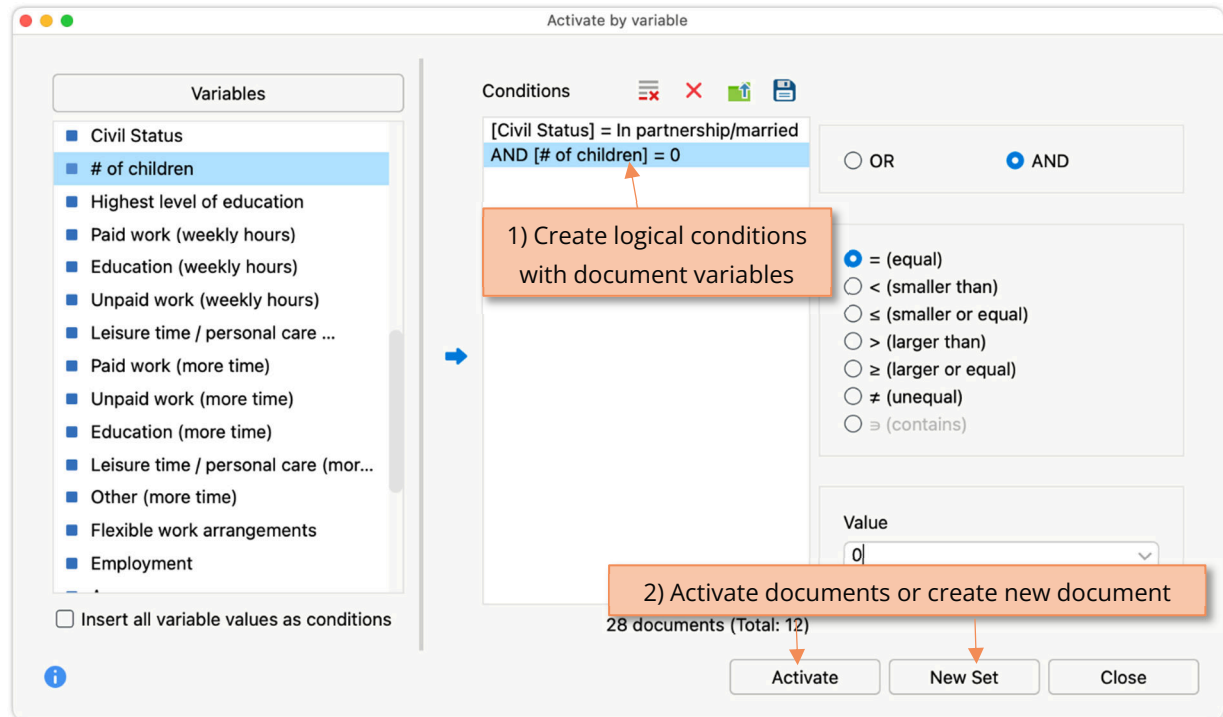
Statistics for document variables

The Document Variables > Document Variable Statistics function can be used to create frequency tables and diagrams for variables. In addition, descriptive statistics can be requested.
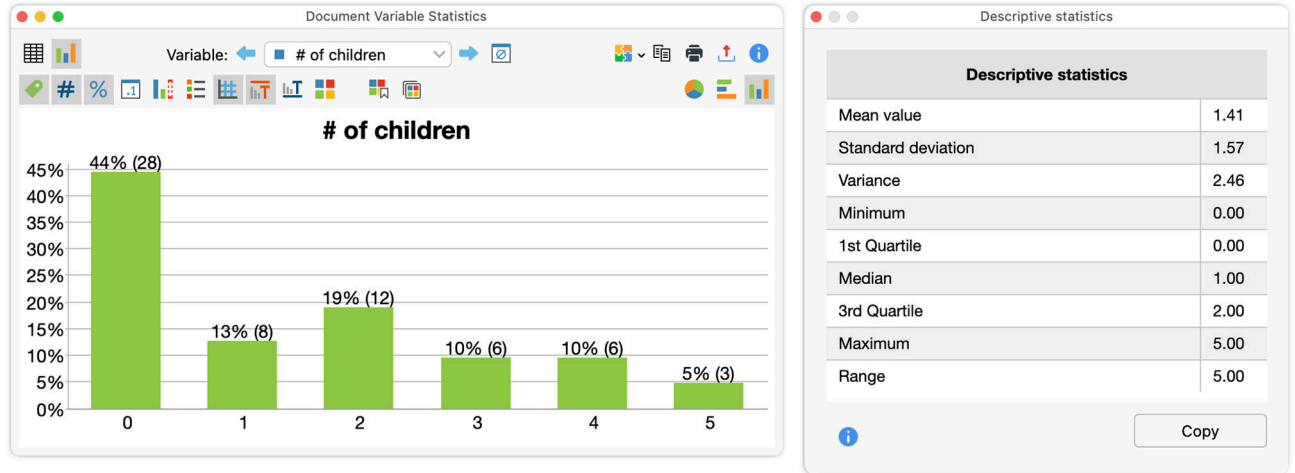
Statistics for QUAL groups

Mixed Methods > Statistics for QUAL Groups generates the following table for the comparison of statistical characteristics for qualitatively formed groups:

	Time use type = Optimizer (N=12)	Time use type = Postponer (N=16)	Time use type = Hedonist (N=16)
Age, Mean (SD)	**44.4 (8.4)**	32.5 (6.2)	27.2 (3.7)
Siblings, Mean (SD)	1.3 (0.5)	0.8 (0.8)	**2.3 (0.4)**
Education level: University degree	**8 (66.7)**	5 (31.3)	**8 (50.0)**
employed?: yes, Number (%)	**12 (100.0)**	11 (68.8)	9 (56.3)
N (Documents)	12 (27.3%)	**16 (36.4%)**	**16 (36.4%)**

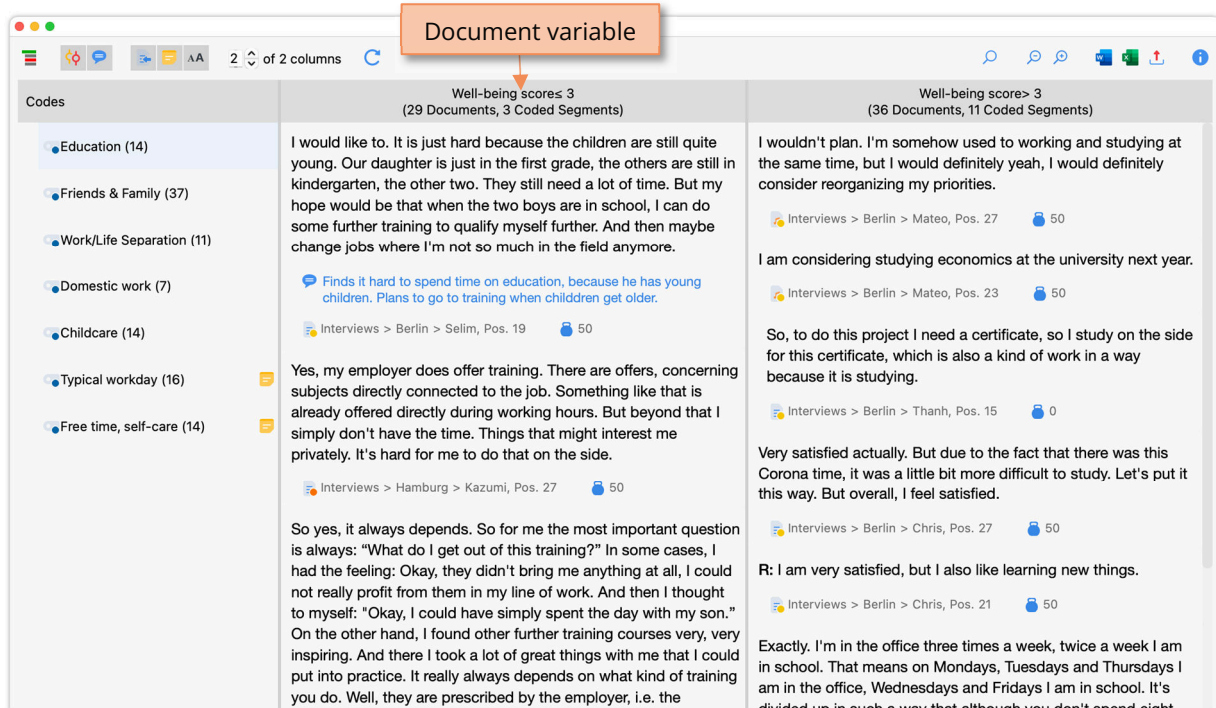Columns = qualitatively formed groups (e.g., a typology)

Rows = document variables (quantitative)

Cells = number and percentages or mean and standard deviation, depending on the variable.

Note: Using the Mixed Methods > Typology Table function, you create an identically structured table, the only difference is that for creating the columns document variables are used instead of codes.

Interactive Quote Matrix, QUAL Themes for QUAN Groups

Mixed Methods > Segment Matrix as well as Mixed Methods > QUAL Themes for QUAN Groups generates the following table for the comparison of coded segments or their summaries for quantitatively formed groups:

Columns = groups formed using document variables (quantitative)

Rows = Codes (qualitative)

Cells = coded segments or their summaries

Crosstab
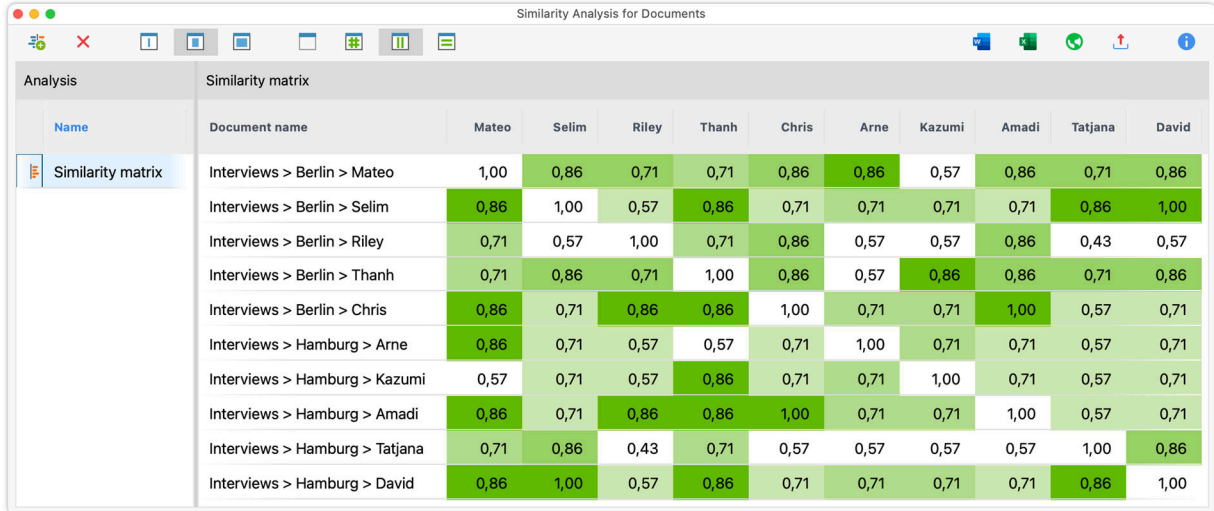
Mixed Methods > Crosstab creates a table with the same structure as the Interactive Quote Matrix, but code frequencies are displayed in the cells:

	Well-being score ≤ 3	Well-being score > 3	Total
Education	3	6	9
Friends & Family	4	6	10
Work/Life Separation	3	5	8
Domestic work	2	3	5
Childcare	3	2	5
Typical workday	4	6	10
Free time, self-care	3	6	9
Σ SUM	22	34	56
# N = Documents/Speakers	29 (44,6%)	36 (55,4%)	65 (100,0%)

Similarity analysis for documents, document map

Mixed Methods > Similarity Analysis for Documents creates a "Documents x Documents" table. The cells are colored the more intensively the more similar two documents are in terms of assigned codes and variable values:

Document name	Mateo	Selim	Riley	Thanh	Chris	Arne	Kazumi	Amadi	Tatjana	David
Interviews > Berlin > Mateo	1,00	0,86	0,71	0,71	0,86	0,86	0,57	0,86	0,71	0,86
Interviews > Berlin > Selim	0,86	1,00	0,57	0,86	0,71	0,71	0,71	0,71	0,86	1,00
Interviews > Berlin > Riley	0,71	0,57	1,00	0,71	0,86	0,57	0,57	0,86	0,43	0,57
Interviews > Berlin > Thanh	0,71	0,86	0,71	1,00	0,86	0,57	0,86	0,86	0,71	0,86
Interviews > Berlin > Chris	0,86	0,71	0,86	0,86	1,00	0,71	0,71	1,00	0,57	0,71
Interviews > Hamburg > Arne	0,86	0,71	0,57	0,57	0,71	1,00	0,71	0,71	0,57	0,71
Interviews > Hamburg > Kazumi	0,57	0,71	0,57	0,86	0,71	0,71	1,00	0,71	0,57	0,71
Interviews > Hamburg > Amadi	0,86	0,71	0,86	0,86	1,00	0,71	0,71	1,00	0,57	0,71
Interviews > Hamburg > Tatjana	0,71	0,86	0,43	0,71	0,57	0,57	0,57	0,57	1,00	0,86
Interviews > Hamburg > David	0,86	1,00	0,57	0,86	0,71	0,71	0,71	0,71	0,86	1,00

This data is used, for example, for Visual Tools > Document Map to place documents on a map according to their similarity in terms of codes and/or variable values:
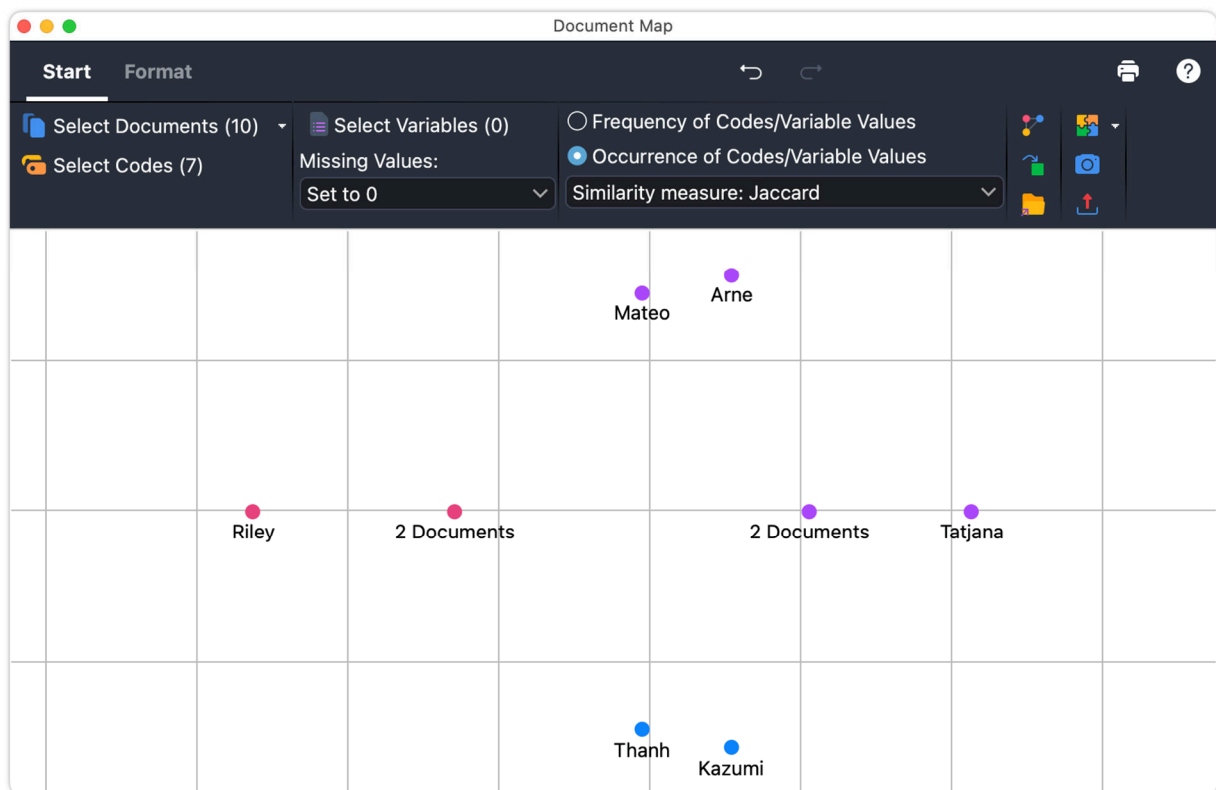
MAXQDA Stats

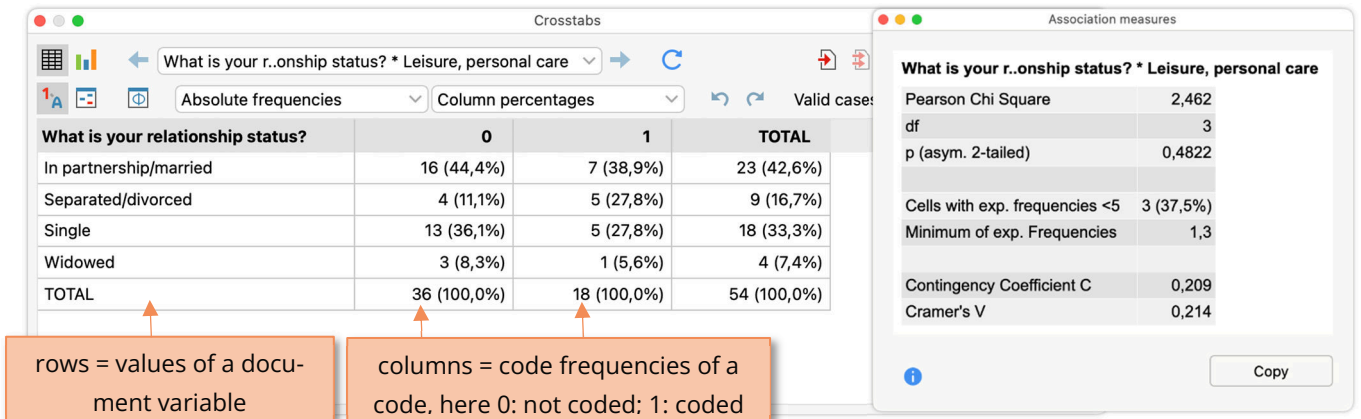With the help of MAXQDA Stats (which is available for all MAXQDA Analytics Pro licenses) additional statistical functionalities and mixed methods features are available, for example, statistical cross-tabs with variables in the columns and codes in the rows, including association measures and grouped bar charts:

What is your relationship status?	0	1	TOTAL
In partnership/married	16 (44,4%)	7 (38,9%)	23 (42,6%)
Separated/divorced	4 (11,1%)	5 (27,8%)	9 (16,7%)
Single	13 (36,1%)	5 (27,8%)	18 (33,3%)
Widowed	3 (8,3%)	1 (5,6%)	4 (7,4%)
TOTAL	36 (100,0%)	18 (100,0%)	54 (100,0%)

rows = values of a document variable

columns = code frequencies of a code, here 0: not coded; 1: coded

Association measures

What is your r..onship status? * Leisure, personal care

Pearson Chi Square	2,462
df	3
p (asym. 2-tailed)	0,4822
Cells with exp. frequencies <5	3 (37,5%)
Minimum of exp. Frequencies	1,3
Contingency Coefficient C	0,209
Cramer's V	0,214

… and interactive connections of the quantitative and qualitative data in a project, for example, a feature to save documents in a results table's cell as a document set:

More information

- YouTube: https://www.youtube.com/results?search_query=maxqda+mixed+methods
- Online Manual: https://www.maxqda.com/help-mx24/mixed-methods/general

References

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Kuckartz, U. & Rädiker, S. (2021). Using MAXQDA for mixed methods research. In R. B. Johnson & A. J. Onwuegbuzie (Eds.), The Routledge reviewer's guide to mixed methods analysis (S. 305–318). Routledge. https://doi.org/10.4324/9780203729434-26

Kuckartz, U., & Rädiker, S. (2022). Using MAXQDA for integration in mixed methods. In J. H. Hitchcock & A. J. Onwuegbuzie, The Routledge handbook for advancing integration in mixed methods research (S. 540–562). Routledge. https://doi.org/10.4324/9780429432828

Research Examples

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Toraman Turk, Sinem (2024). Using MAXQDA for mixed methods research: An example integrating interview, survey, and social network data. In: S. Rädiker & M. C. Gizzi (Eds.), *The practice of qualitative data analysis. Research examples using MAXQDA, volume 2* (pp. 107-126). MAXQDA Press. https://doi.org/10.36192/978-3-948768188_6