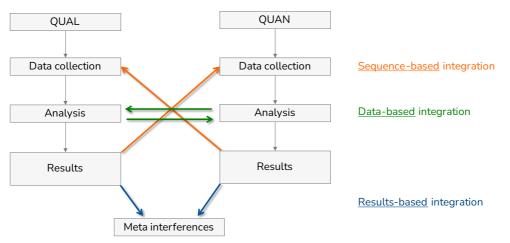


Spotlight Session: Mixed Methods with MAXQDA

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 (2019, 2021) distinguish three forms of integration in mixed methods studies:



- Results-based integration can be performed in any mixed methods project.
- 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.
- Sequence-based integration occurs in sequential designs: the results of the qualitative or quantitative sub-study guide the subsequent sub-study, e.g., the selection of cases or the development of an interview guideline or standardized questionnaire.

MAXQDA provides functions for all of these integration variants but plays to its great strength in databased integration, in which qualitative and quantitative data are analyzed together.

Most mixed methods functions can be found on the Mixed Methods menu tab:

Home	Import	Codes	Memos	Variables	Analysis	Mixed Methods	Visual Too	ls Reports	MAXDictio	Stats	TeamCloud
Activate D by Var		Interactive Quote Matrix	Crosstab	123 Quantitizing	Typology Table	Similarity Analysis for Documents	Side-by-side	 ♀ QUAL Theme ■ QUAL Theme ≦ Statistics by 0 	s by QUAN Grou		



Tip: All the 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:

			~ ¢	Ýo Ýo 🚺 🖉 🌶 🖉	<u>k 🖉 🖉 🙂</u>	🗢 🖓 🖓 🖗				
ŧ	1	RESP01	СС	oded qualitative c	data in the	e "Document Brov	vser"			
eisure / Persona /hy would you s Q Unpaid work				<i>.</i>	•	t by ourselves. My person ring works. These are the	-	1	-	s mo
ome office QQQ	3	I am able to	work from	n home, increase or red	uce my work	ing hours as it fits, and fle	xible to change wo	rking time f	or my so	n. T
Document	6	I am able to	work fron	n home, increase or red	uce my work	ing hours as it fits, and fle	xible to change wo	rking time f	or my so	n. T
Document	ariables		work fron	n home, increase or red	uce my work	ing hours as it fits, and fle	xible to change wo	orking time 1 —		>
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Data editor -	Ariables Ariables Ariables Ariables Ariables Ariables Ariables Ariables Ariables Ariables Ariables	group: Survey			# of children		Motivation at work	-	55 Doc	ume (
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/p Data editor -	Ariables Document	group: Survey	ent name	Civil Status Separated/divorced	# of children 1	Highest level of education	Motivation at work		55 Doc	ume (

Transform code to 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 into Document Variable or Mixed Methods > Quantitizing):

		E Document Variables
🔁 Code System	Crosstab Code Model	Data editor - Document group: Interviews
Code Syster	Transform into Document Variable	Document group Document name Education
💽 Well-beir 🗸 🐨 🗸	© Properties	Interviews Selim 1 Interviews Riley 0
Educat		Interviews Kney 0

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 via Variables feature allows you to select documents or to save groupings of documents as document sets in the "Document System" for further analyses.

C Activate by variable			— 🗆 X
Variables		Conditions 🗮 🗙 🖬 🗎	
Civil Status		[Civil Status] = In partnership/married AND [# of children] = 0	O OR
# of children		AND [# of children] = 0	
Highest level of education			
Paid work (weekly hours)		1) Create logical conditions	(equal)
Education (weekly hours)		with document variables	○ < (smaller than)
Unpaid work (weekly hours)			○ ≤ (smaller or equal)
Leisure time / personal care (week			○ > (larger than)
Paid work (more time)	-		○ ≥ (larger or equal)
Unpaid work (more time)			
Education (more time)			O ≠ (unequal)
Leisure time / personal care (mor			$\bigcirc \ni$ (contains)
Other (more time)			
Flexible work arrangements			Value
Employment			
Age ~		2) Activate docume	ents or create new document set
Insert all variable values as conditions		28 documents (Total: 12)	
6		Activate	New Set Cancel

Document System	i i	7	•	6	G	ρ	\$	P	▲	×
Ocuments										587
• 🕒 Survey Question	s									0
> 🔸 🚞 Survey									M	192
> 🔸 🚞 Interviews									M	395
🗸 🐂 Sets										76
🗸 🔸 📜 Civil Status=In p	artnersh	nip/m	arrie	d UI	ND #	of chi	ldren=	: 0		76
→ 📄 Survey\R04	Doc	ume	nt s	et c	onta	aining	doci	ımer	nts	2
→ 💂 Survey\R06	Duc					cond			105	5
→ 🗐 Survey\R08		cri	acm	icei		conta		,		5
→ 💂 Survey\R10									Ū	0
+ SurveyAR11				_						5





Statistics for document variables

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

👼 Document Variab	le Statistics			-	- 🗆	×	Descriptive statistics	×
	Variable: 🖛 🔳		~ > Ø	57 •	🗈 😑 🙏		Descrip	otive statistics
	li i i i i i i i i i i i i i i i i i i	.			🌒 🛋	ы	Mean value	1.41
		# of chi	ldren				Standard deviation	1.57
45% 44% (28))					-1	Variance	2.46
40%						-1	Minimum	0.00
35% 30%							1st Quartile	0.00
25%						-1	Median	1.00
20%	14% (9)	19% (12)				-1	3rd Quartile	2.00
15% 10%	1478 (9)		9% (6)	9% (6)			Maximum	5.00
5%		-	-		5% (3)		Range	5.00
0%0	1	2	3	4	5		0	Сору

Statistics for QUAL groups

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

	🗮 Турс	ology Table	
= = C			X 🌢 🗗
	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.





Mixed Methods > Interactive Quote 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:

🗔 Interactive Quote Matrix		Document variable		- 🗆 X				
들 🔅 🗭 🔂 🔁 😫 🛛	2 🗢 of 2	columns C		🚹 📩 📑 🛶 ର୍ ର୍				
Codes		Well-being score≤ 3 (4 Documents, 3 Coded Segments)		Well-being score≥ 3 (9 Documents, 13 Coded Segments)				
C Education (16) C Friends & Family (46) C Work/Life Separation (13) C Domestic work (8) C Childcare (20) C Typical workday (23)	5	I would like to. It is just hard because the children are still quite young. Our daughter is just in the first grade, the others are still in kindergarten, the other two. They still need a lot of time. But my hope would be that when the two boys are in school, I can do some further training to qualify myself further. And then maybe change jobs where I'm not so much						
ि Free time, self-care (16)		 in the field anymore. Finds it hard to spend time on education, because he has young children. Plans to go to training when childdren get older. 		I am considering studying economics at the university next year. Image: Interviews > Berlin > Mateo, Pos. 23 Image: Butterviews > Butterview				
		☐ Interviews > Berlin > Selim, Pos. 19 G Work-life balance > Education (50)		So, to do this project I need a certificate, so I study on the				
co lik		Yes, my employer does offer training. There are offers, concerning subjects directly connected to the job. Something like that is already offered directly during working hours. But beyond that I simply don't have the time. Things that might		side for this certificate, which is also a kind of work in a way because it is studying. Interviews > Berlin > Thanh, Pos. 15 Control Work-life balance > Education (0)				
		interest me privately. It's hard for me to do that on the side.	~	Very satisfied actually. But due to the fact that there was this \checkmark				

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:

Crosstab			- 🗆		
	+ + % # Σ	🗉 C' 📅	🔹 🔹 📩		
	Well-being score ≤ 3	Well-being score > 3	Total		
Education	3	6	9		
💽 Friends & Family	4	6	10		
Work/Life Separation	3	5	8		
Omestic 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	4 (40,0%)	6 (60,0%)	10 (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:

Similarity Analysis fo	r Documents									- 0	
x 🔳									w	X 🌀	•
nalysis	Similarity matrix										
Name	Document name	Mateo	Selim	Riley	Thanh	Chris	Arne	Kazumi	Amadi	Tatjana	Davi
Similarity matrix	Interviews\Mateo	1,00	0,86	0,67	0,71	0,83	0,83	0,57	0,83	0,71	0,8
	Interviews\Selim	0,86	1,00	0,57	0,86	0,71	0,71	0,71	0,71	0,86	1,0
	Interviews\Riley	0,67	0,57	1,00	0,67	0,80	0,50	0,50	0,80	0,43	0,5
	Interviews\Thanh	0,71	0,86	0,67	1,00	0,83	0,57	0,83	0,83	0,71	0,8
	Interviews\Chris	0,83	0,71	0,80	0,83	1,00	0,67	0,67	1,00	0,57	0,7
	Interviews\Arne	0,83	0,71	0,50	0,57	0,67	1,00	0,67	0,67	0,57	0,7
	Interviews\Kazumi	0,57	0,71	0,50	0,83	0,67	0,67	1,00	0,67	0,57	0,7
	Interviews\Amadi	0,83	0,71	0,80	0,83	1,00	0,67	0,67	1,00	0,57	0,7
	Interviews\Tatjana	0,71	0,86	0,43	0,71	0,57	0,57	0,57	0,57	1,00	0,8
	Interviews\David	0,86	1,00	0,57	0,86	0,71	0,71	0,71	0,71	0,86	1,0

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, e.g., statistical crosstabs with variables in the columns and codes in the rows, including association measures and grouped bar charts:

∑ Crosstabs							—		×
🖽 🖬 🔶 Civil Status * Why wou	ıld you Personal Care	e ~ → C		Ð	1	5 7	Ē	e (• •
¹A ⊡ ① Absolute frequencies	× ⊨⊃	က Valid c	ases:	54; Mi	ssing	cases	: 1 (1,8%)		
Civil Status	0	1	Tota	l in the second s					
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)	l de la construcción de la constru					
<u> </u>	<u> </u>	<u> </u>							
rows = values of a document variable		de frequencies not coded; 1: cc							

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

Civil Status		0	1		Total
In partnership/married	16 (44		7 (38,9)		23 (42,6)
Separated/divorced		Сору		Ctrl+C	9 (16,7)
Single	1: ×	Delete		Del	3 (33,3)
Widowed		Save As Do	ocument Set		4 (7,4)
Total	36	Select All		Ctrl+A	(100,0)

More information

- YouTube: https://www.youtube.com/results?search_query=maxqda+mixed+methods
- Online Manual: https://www.maxqda.com/help-mx22/mixed-methods-functions/general

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