

# Quantitative Text Analysis with MAXDictio (Spotlight Session)

MAXDictio is a quantitative text analysis module that is part of MAXQDA Plus and MAXQDA Analytics Pro. It is not a part of MAXQDA Standard. MAXDictio offers tools for word-based analysis of text and PDF documents:

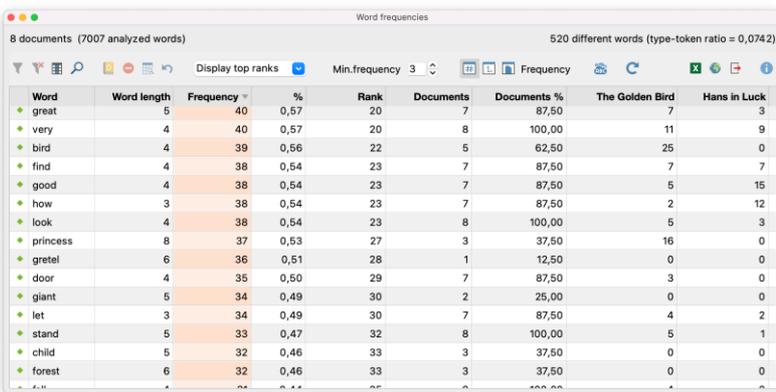
- Analysis of word frequencies and word combinations
- Analysis of Keyword-in-context (results tables and Interactive Word Tree)
- Quantitative content analysis with a dictionary



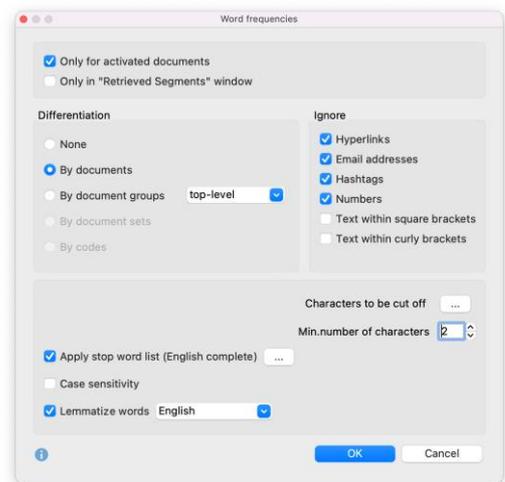
## 1. Exploration: Word Frequencies

Select MAXDictio > Word Frequencies to count and list words in all (or only in activated) text and PDF documents. Alternatively, you can restrict the search to the text currently displayed in the “Retrieved Segments” window.

The result table lists all words in the analyzed text by their absolute and relative frequencies. The columns “Documents” and “Documents %” indicate the number and percentage of documents in which a word occurs.



Word	Word length	Frequency	%	Rank	Documents	Documents %	The Golden Bird	Hans in Luck
great	5	40	0,57	20	7	87,50	7	3
very	4	40	0,57	20	8	100,00	11	9
bird	4	39	0,56	22	5	62,50	25	0
find	4	38	0,54	23	7	87,50	7	7
good	4	38	0,54	23	7	87,50	5	15
how	3	38	0,54	23	7	87,50	2	12
look	4	38	0,54	23	8	100,00	5	3
princess	8	37	0,53	27	3	37,50	16	0
gretel	6	36	0,51	28	1	12,50	0	0
door	4	35	0,50	29	7	87,50	3	0
giant	5	34	0,49	30	2	25,00	0	0
let	3	34	0,49	30	7	87,50	4	2
stand	5	33	0,47	32	8	100,00	5	1
child	5	32	0,46	33	3	37,50	0	0
forest	6	32	0,46	33	3	37,50	0	0



## Stop and Go Lists

Stop lists are a place to collect uninteresting words, for example to or and, that you wish to exclude from your analysis. You can send words to the stop list with a click on the green icon in result tables or open MAXDictio > Stop List to customize, export, import and merge stop lists.

## Differentiate by Document, Document Group or Document Set

Result tables can hold additional columns to display word frequencies for documents or document groups. Columns can display how often a word occur, the rank of a word in this document (group) or if the word occurs at all (1, 0).

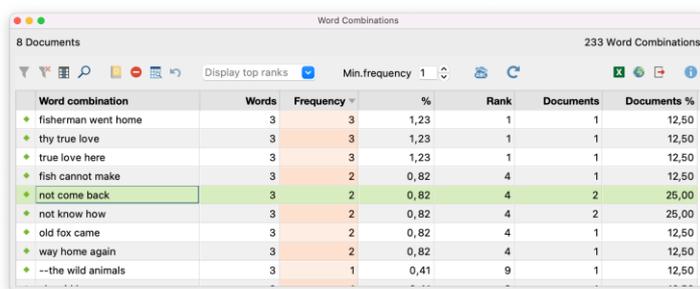
## Lemmatization

Activate the lemmatization option to count words from the same stem together. For example, the frequency for “give” will include occurrences of give, gave, or given. Lemmatization is currently available for 14 languages (Bulgarian, Catalan, Czech, German, English, Spanish, Estonian, French, Hungarian, Italian, Polish, Portuguese, Swedish, Ukrainian).

## 2. Exploration: Word Combinations

Select MAXDictio > Word Combinations works similar to the Word Frequencies feature, but counts and lists word combinations rather than single word occurrences.

You can search for combinations of up to 5 words. You can decide if word combinations should occur within the same sentence or if word combinations should also be counted across paraphrase and full stops.

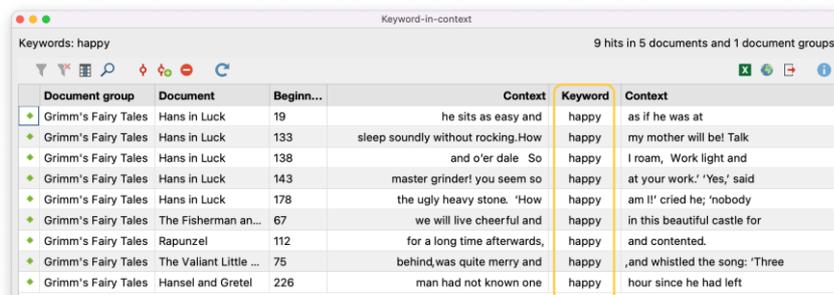


Word combination	Words	Frequency	%	Rank	Documents	Documents %
fisherman went home	3	3	1,23	1	1	12,50
thy true love	3	3	1,23	1	1	12,50
true love here	3	3	1,23	1	1	12,50
fish cannot make	3	2	0,82	4	1	12,50
not come back	3	2	0,82	4	2	25,00
not know how	3	2	0,82	4	2	25,00
old fox came	3	2	0,82	4	1	12,50
way home again	3	2	0,82	4	1	12,50
--the wild animals	3	1	0,41	9	1	12,50

Tip: If you hover with a mouse over a row in the results table, all the lemmatized words or word combinations in this row will be displayed.

## 3. Exploration: Keyword-in-context

Select MAXDictio > Keyword-in-context to view selected keywords in a tabular view along with the words that appear before and after the word. The table also displays document information (name, paragraph).



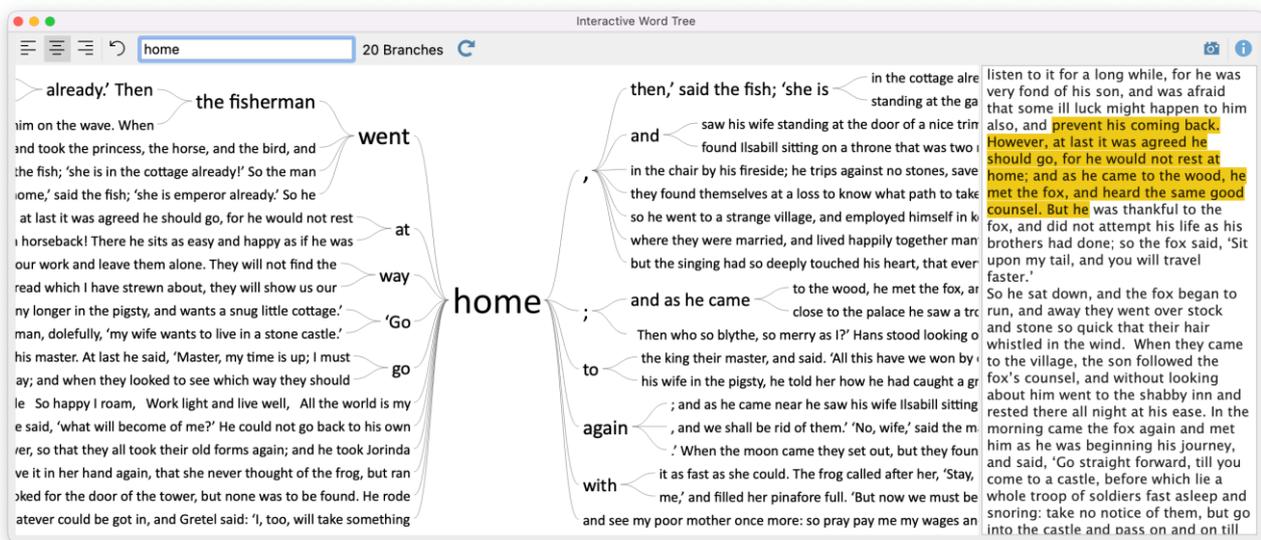
Document group	Document	Beginn...	Context	Keyword	Context
Grimm's Fairy Tales	Hans in Luck	19	he sits as easy and	happy	as if he was at
Grimm's Fairy Tales	Hans in Luck	133	sleep soundly without rocking.How	happy	my mother will be! Talk
Grimm's Fairy Tales	Hans in Luck	138	and o'er dale So	happy	I roam, Work light and
Grimm's Fairy Tales	Hans in Luck	143	master grinder! you seem so	happy	at your work.' 'Yes,' said
Grimm's Fairy Tales	Hans in Luck	178	the ugly heavy stone. 'How	happy	am I!' cried he; 'nobody
Grimm's Fairy Tales	The Fisherman an...	67	we will live cheerful and	happy	in this beautiful castle for
Grimm's Fairy Tales	Rapunzel	112	for a long time afterwards,	happy	and contented.
Grimm's Fairy Tales	The Valiant Little ...	75	behind,was quite merry and	happy	,and whistled the song: 'Three
Grimm's Fairy Tales	Hansel and Gretel	226	man had not known one	happy	hour since he had left

Tip: This table is interactively linked to the original source data. Click into a table row to highlight the search item in the original text in the Document Browser.

Tip: Each column of a result table can be alphabetically sorted with a click on the column header. You can rearrange columns via drag & drop, and right click on a column header to filter for characters.

## 4. Exploration: Interactive Word Tree

Select MAXDictio > Interactive Word Tree to visually explore word and word combinations in your data). Drag all the documents, document groups or sets into the dialog window that you want to use to create a Word Tree.

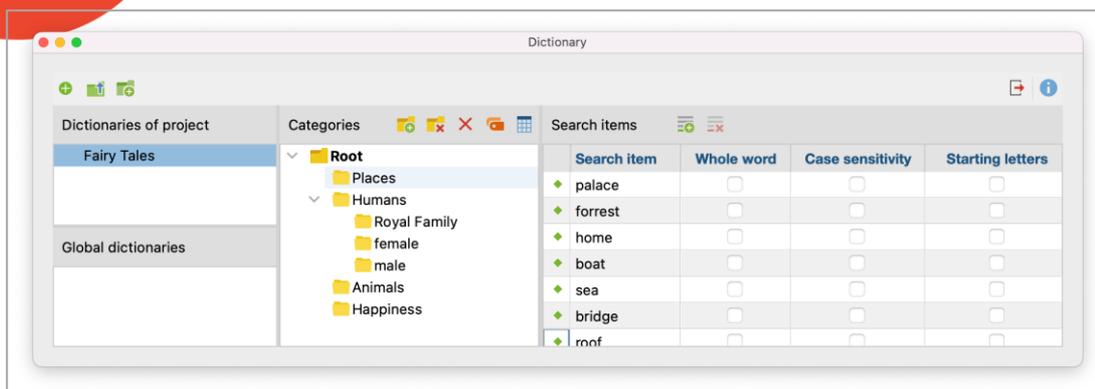


The word “home” is the root of the tree with branches to the left and right showing the words before and after that word. The root can be placed in the middle (as shown above) or as the starting or ending point. The window to the right contains the complete analyzed text. Yellow highlighted passages are currently displayed in the tree view.

Tip: Click on another word to use it as the new root or search for word (combinations) in the search field.

## 5. Dictionary Based Context Analysis

To conduct a dictionary based quantitative context analysis, your first step is to create a dictionary via MAXDictio > Dictionary. A dictionary may contain any number of categories with an unlimited number of search items. For example, a simple dictionary may look like this:



This dictionary contains categories, like “Places” or “Humans”, each of which holds a number of search items. A search item can also consist of multiple word.

Like stop-lists, dictionaries can be imported, exported, and merged. By default, dictionaries and stop lists are saved within a MAXQDA project, to ensure that if you share your project data with your team, everyone can use them.

## 6. Frequencies of Dictionary Categories

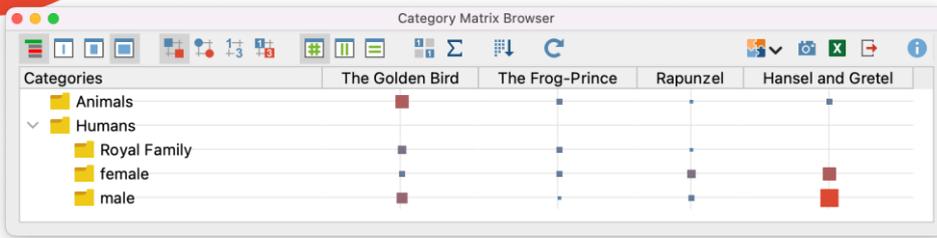
Select MAXDictio > Quantitative Content Analysis to create a frequency table similar to the ones we discussed earlier. This time MAXQDA only searches for search items in active dictionaries.

Document group	Document	Words	Royal Family	female	male	Animals
Grimm's Fairy Tales	The Golden Bird	2542	32	18	52	69
Grimm's Fairy Tales	The Frog-Prince	1197	27	21	10	19
Grimm's Fairy Tales	The Fisherman and his ...	2124	26	52	81	28
Grimm's Fairy Tales	The Valiant Little Tailor	3354	15	12	93	17
Grimm's Fairy Tales	Rapunzel	1412	8	40	22	3
Grimm's Fairy Tales	Hans in Luck	2371	0	4	50	56

Tip: You can also right click on a document or document group to start the quantitative content analysis for the selected document(s).

## 7. Visualize Frequencies of Dictionary Categories

Select MAXDictio > Category Matrix Browser to visualize the same type of frequencies in a visual matrix. The image blow visualizes how often search items from different categories occur in different fairy tales. You can also start this feature by clicking the matrix browser icon in the result table of a quantitative content analysis.



## 8. Autocode Documents with Dictionary Categories

Select MAXDictio > Autocode with dictionary to automatically search for occurrences of category search items. Each search result can be coded with the name of the category, that holds this search item. All the usual autocode options of MAXQDA are available, e.g. to code just the search item, or the (adjoining) sentence(s) or paragraph(s) it occurs in.

The screenshot shows a 'Code System' window with a tree view of categories and their counts.

Code System	Count
Code System	844
MAXDictio	0
Humans	0
Royal Family	95
female	217
male	342
Animals	187