Text Topics in Visual Analytics

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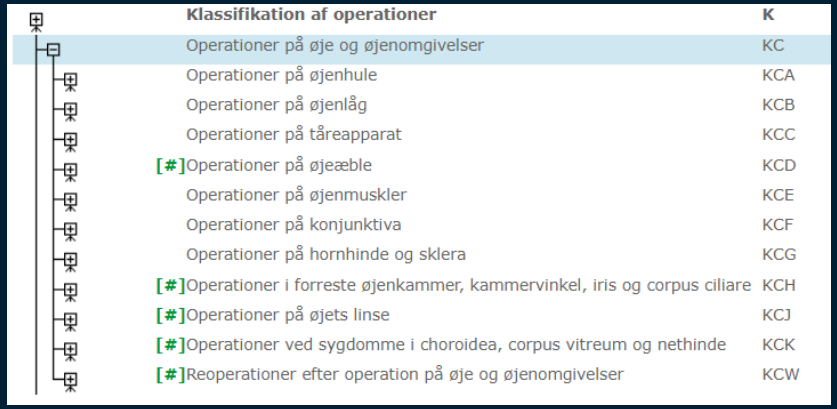
Text Object

Documentation and demo-data

- Documentation
  - https://documentation.sas.com/doc/en/vacdc/v_013/vaobj/n0j471s3qd6kimn1lldo7c6plp5h.htm

- Data – Classificaiton of operations
  - https://medinfo.dk/sks/brows.php?s_nod=31170

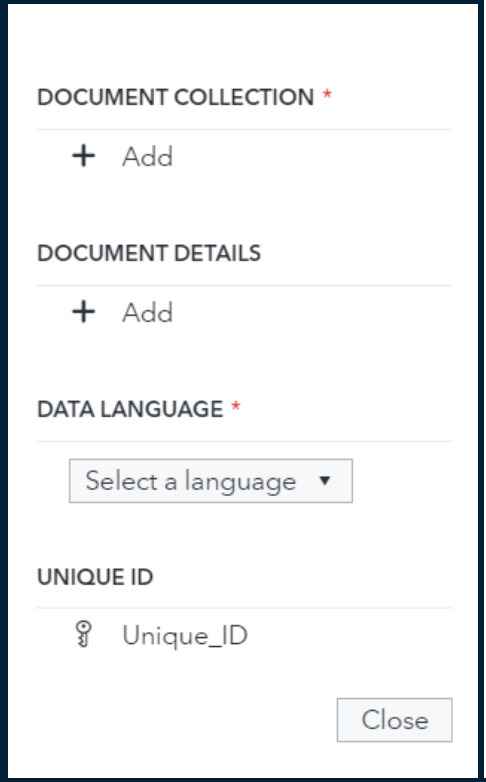


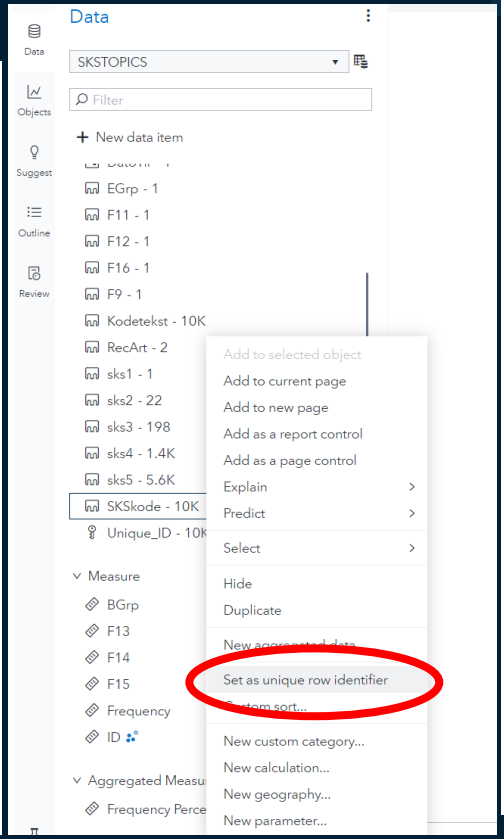
Klassifikation af operationer	K
Operationer på øje og øjenomgivelser	KC
Operationer på øjenhule	KCA
Operationer på øjenlåg	KCB
Operationer på tåreapparat	KCC
[#]Operationer på øjeæble	KCD
Operationer på øjenmuskler	KCE
Operationer på konjunktiva	KCF
Operationer på hornhinde og sklera	KCG
[#]Operationer i forreste øjenkammer, kammervinkel, iris og corpus ciliare	KCH
[#]Operationer på øjets linse	KCJ
[#]Operationer ved sygdomme i choroidea, corpus vitreum og nethinde	KCK
[#]Reoperationer efter operation på øje og øjenomgivelser	KCW

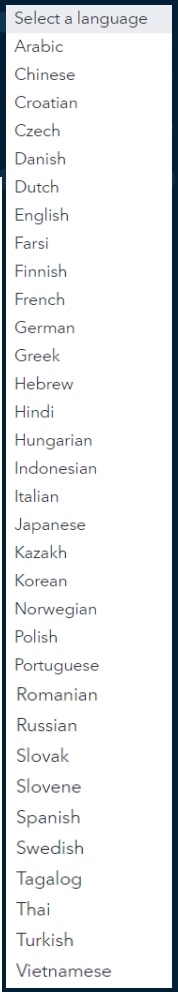
Text Topic object

Requriments

- Document Collection
  - Text variable
- Document Details
  - See extra variables
- Data Language
  - Set the Language
- Unique ID
  - Unique Row Identifier
  - Have to be cateorical!



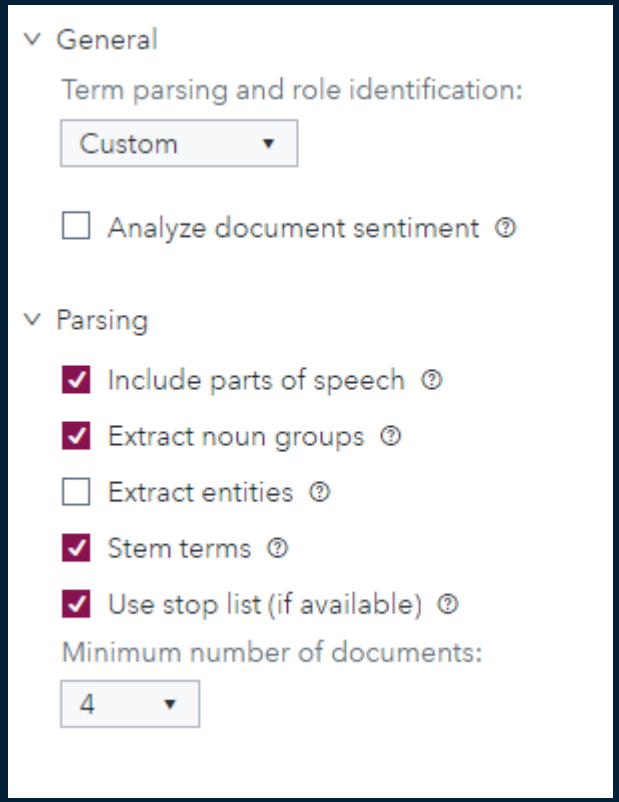




Text Object - Options

General

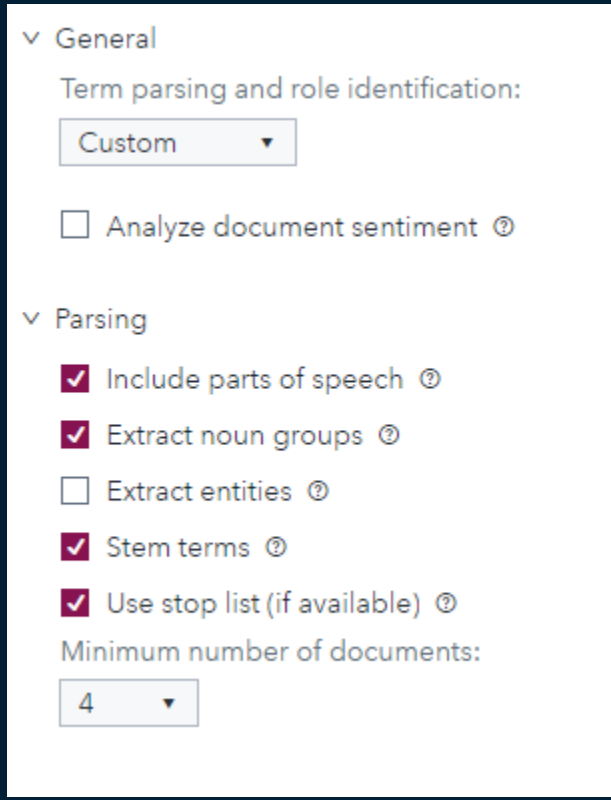
- Term parsing and role identification
  - Custom = Advanced options are shown
- Analyze document sentiment
  - Sentiment analysis determines whether a document has a positive sentiment, negative sentiment, or neutral sentiment based on the content of the document



Text Object - Options

Parsing

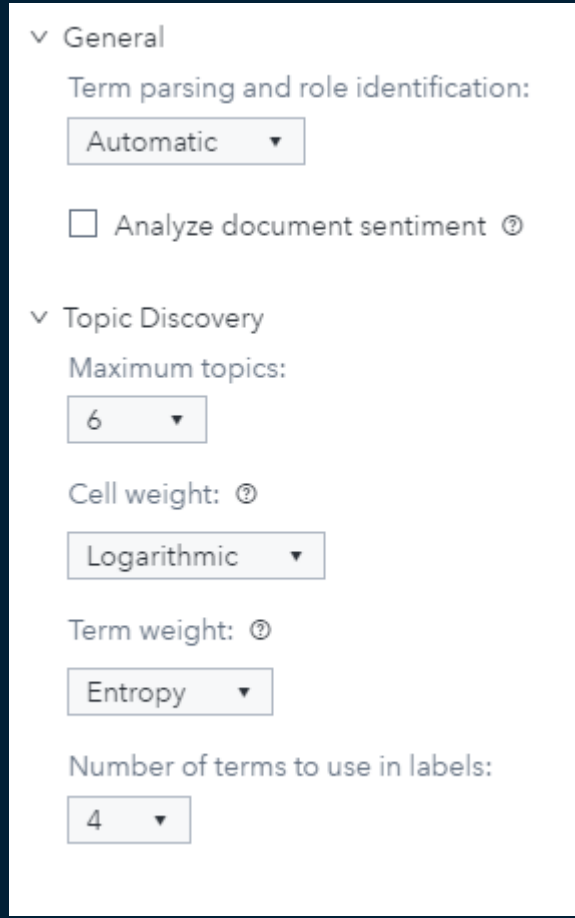
- Include parts of speech
  - specifies that terms are classified by parts of speech (for example, a noun, a verb, or an adjective). The part of speech for each term is displayed in the data tip for the term.
- Extract noun groups
  - specifies whether to identify groups of nouns as terms.
- Extract entities
  - specifies whether to identify text entities such as names, addresses, telephone numbers, and so on. If this option is disabled, then text entities are not treated differently from other text.
- Stem terms
  - specifies whether all forms of a given word are identified as a single term. For example, if you select Stem terms, then the words “sell,” “sells,” “selling,” and “sold” are identified as a single term “sell.”
  - *Anden = And!! (Danish = make no sense)*
- Use stop list (if available)
  - specifies whether to use a stop list to exclude common words such as “the,” “with,” and “is” when identifying terms. If no stop list is available, then a message appears at the bottom of the word cloud.
- Minimum number of documents
  - specifies the minimum number of documents that a term must appear in. Specify a number from 1 to 20. If a term does not appear in the minimum number of documents, then it is not included in the analysis.



Text Object - Options

Top Discovery

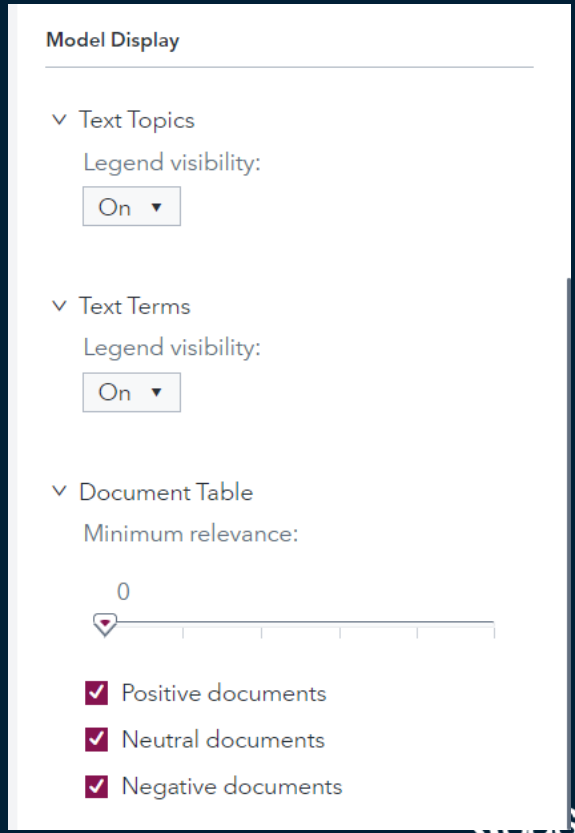
- Maximum topics
  - Specifies the maximum number of topics to create. Specify a number from 2 to 25.
- Cell weight
  - Specifies whether to weight the frequency of each term for every document that it appears in. Selecting Logarithmic de-emphasizes terms that appear many times in relatively few documents.
- Term weight
  - Specifies a weighting algorithm for the terms in the document collection. The Entropy weighting algorithm emphasizes terms that have a low frequency across the document collection.
- Number of terms to use in labels
  - Specifies the number of terms that are included in a topic name. Specify a number from 2 to 8. This option does not affect the number of terms that are used to select topics—only the topic names are changed.



Text Object - Options

Model Display

- Legend visibility
  - Specifies whether the legend is displayed for the topics bar chart and for the terms word cloud.
- Minimum relevance
  - Specifies the minimum relevance value for a document to be displayed when a topic is selected.
- Positive documents
  - Displays documents that have positive sentiment.
- Neutral documents
  - Displays documents that have neutral sentiment.
- Negative documents
  - Displays documents that have negative sentiment.



Text Object

Definitions

Document Term matrix

- A document-term matrix is a mathematical matrix that describes the frequency of terms that occur in a collection of documents.
- In a document-term matrix, rows correspond to documents in the collection and columns correspond to terms.

Topic Relevance

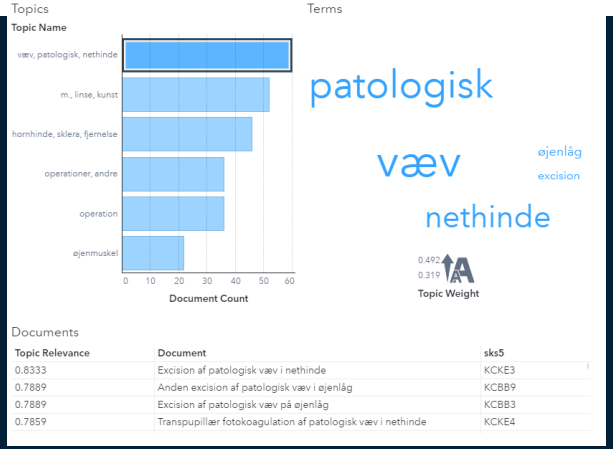
- Relevance is the concept of one topic being connected to another topic in a way that makes it useful to consider the second topic when considering the first

Text Object

Definitions

Document Count: Terms with the smallest height appears in x documents and the largest X times in the document collection.

Topic Weight: Terms with the smallest height have a weight on x and the largest a weight X in relation to the selected Topic.



Demo

Conclusions

- Not a reporting tool
- But a very good adhoc analytical tool
- You lose your overview when there is many data
  - Filer!
- Easy and quick to use
  - Not very much time is lost by trying
  - But potential much time is gained!