




## Task 1

## Corpus overview

In this task, you will explore the properties of individual texts in a corpus. Go to the Text tool in #LancsBox X and select the BNC2014 corpus (whole corpus). Provide the following information.

1. Number of files in the BNC2014 is 88,171.
2. The **largest** file has 123,259 tokens.
3. The **smallest** file has 30 tokens.
4. The number of files that are equal or larger than 10,000 words is 1,820.
5. The most lexically diverse file in **Academic prose** is AcaMedRv88.xml with MATTR<sub>50</sub> 0.88.
6. The least lexically diverse file in **Informal speech** is Sp0m2f99.xml with MATTR<sub>50</sub> 0.64.

Name	Tokens	MATTR <sub>50</sub>	MTLD	genre
AcaNatBk13.xml	51,157	0.73	43.38	academic pro
AcaMedBk9.xml	49,716	0.78	71.88	acad
AcaPleBk15.xml	49,629	0.82	101.7	
AcaSocBk13.xml	49,298	0.80	86.02	

**Tip:** To find files with given properties click on the filter icon  and apply an appropriate filter. Then click on a relevant column to sort files. Columns can be added by clicking on the + sign.

## Lexical diversity

There are a number of lexical diversity measures showing the range of different words in a text. For the comparison of files of varying sizes, we need to go beyond a simple Type/token ratio (TTR) and compute more sophisticated measures such as Moving average type/token ration (MATTR) or a Measure of textual lexical diversity (MTLD).

**Type/token ratio (TTR)** expresses the proportion of types relative to the proportion of tokens. It is calculated by dividing the number of types in a text or corpus by the number of tokens. It decreases with text size so it cannot be used to compare texts of different sizes in a corpus.

**Moving average type/token ration (MATTR)** is calculated by dividing a text into standard sized overlapping segments (e.g. 50 words in MATTR<sub>50</sub>) as a window moves through the file one token at a time. TTR is calculated for each overlapping segment and then the mean value of the TTRs is taken. MATTR is suitable for comparing texts of different sizes.

**Measure of textual lexical diversity (MTLD)** is the mean number of words in a text that maintain a given TTR value of .72.

## Task 2

### Distribution of linguistic features in texts

In the BNC2014, search for occurrences of the past tense using the smart search `PAST_TENSE` ( don't forget to include the underscore). Answer the following questions:

1. In how many texts does the **past tense** occur? 81,397
2. In how many texts does the **past tense** occur with a relative frequency that is higher than the average relative frequency for the whole corpus? \_\_ Number of texts: 29,024
3. In how many newspaper texts does the past tense occur **at least once**? 46,112
4. In how many newspaper texts does the past tense **not occur at all**? 4,098

## Task 3

### Analysing individual texts

In the BNC2014, find the text with the largest relative frequency of the search term `fuck*`. Provide information about this text.

1. Name of the text file: MagCla1338.xml
2. Genre: magazines
3. Source: Classic Rock
4. The swearword `fuck*` occurs 13 times in the text, which has 148 tokens.

This means on average, an f-word occurs every 11.38 words.

5. The function of the swearwords in this context is

To describe songs on an album which contains a high frequency of the swearword  
fuck\*'. The article reports the release of the album and also highlights the frequent use  
of the term in an individual song.

