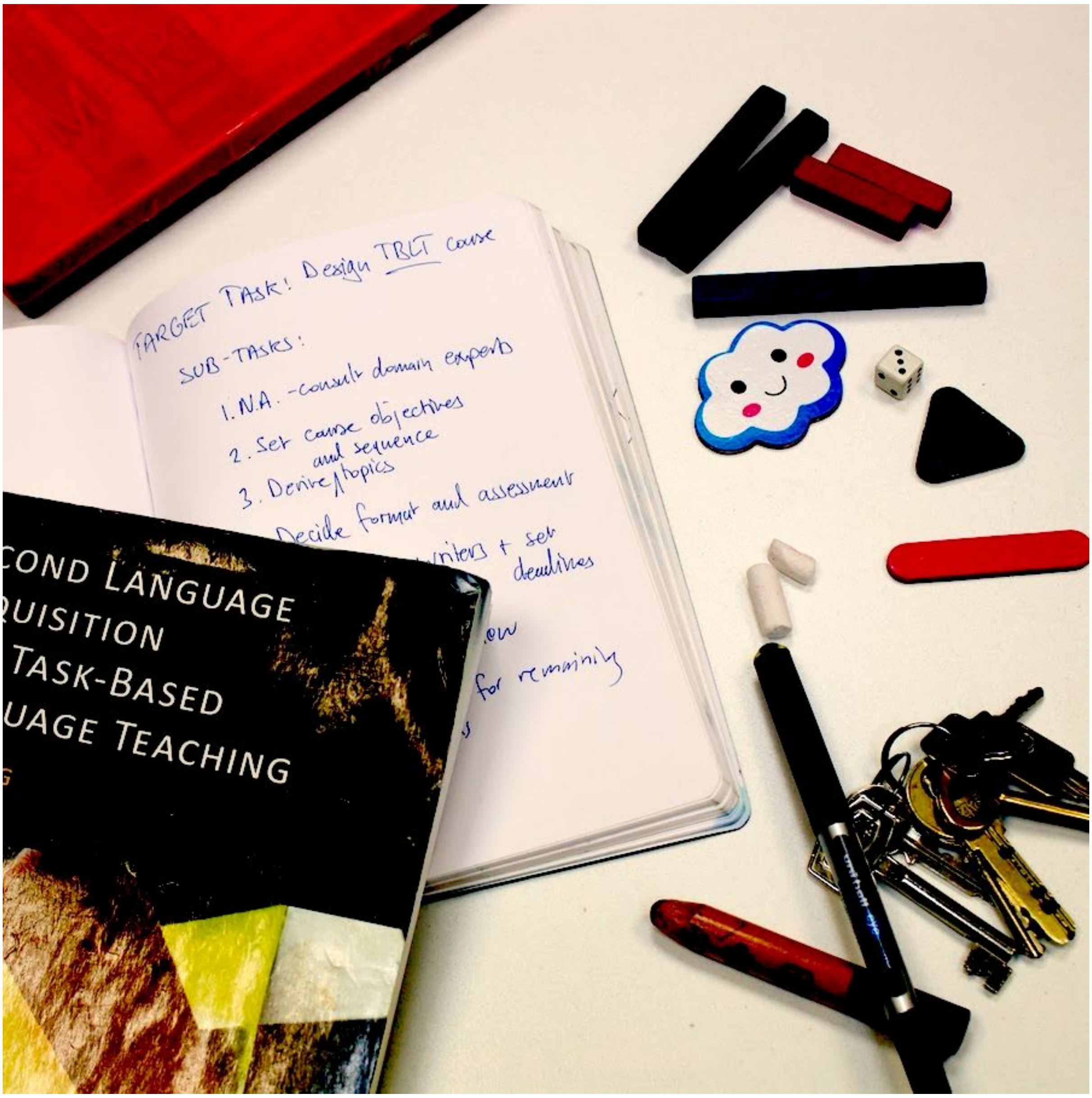
SLB Cooperativa de Serveis Lingüístics de Barcelona

Task-Based Language Teaching (TBLT): From Theory to Practice

Using Corpora for Analysis of Discourse


TARGET TASK: Design TBLT course
SUB-TASKS:
1. N.A. - consult domain experts
2. Set course objectives and sequence
3. Derive topics
Decide format and assessment
writers + set deadlines
for remaining
COND LANGUAGE
QUISITION
TASK-BASED
UAGE TEACHING

Marc Jones

Using Corpora for Analysis of Discourse

Contents

Introduction

Corpora are simply collections of texts, though usually they are large collections of texts. Many modern corpora, such as the 14-million-word iWeb corpus (available through Brigham Young University's corpus interface, which will be discussed below) are huge, while many small, specialized corpora are around tens of thousands of words.

Corpora are not new. Many people know the word corpus from the Latin, and the name Corpus Christi, or 'the body of Christ'. The term comes from monastic collections of texts on certain subjects. Those monks required a lot of reading and purposeful human searching which can now be accomplished in a matter of seconds, using computer software called a **concordancer**, or in some cases just very advanced text-editing software. While this may make things sound easy, it might not always be. There are times when corpus results may go against one's expectations. However, this is not a negative; one of the bonuses of using corpora is to avoid wholly relying upon intuition and instead draw upon authentic language use when designing tasks.

Scraping

When using corpora for discourse analysis (or analysis of discourse) in task-based language teaching, there are two main things we can do: gathering discourse -- often by scraping the web -- and analysing. Scraping is a process of automatically pulling text from websites and is one of the most convenient ways to build a corpus. If you want a written corpus this is especially useful. Even if you want a spoken corpus, it might be difficult to get access to real speech in the context you want to analyse discourse in (especially medical contexts), but samples of written discourse can provide the course designer and teachers with lexis and grammar that has a high probability of coming up.

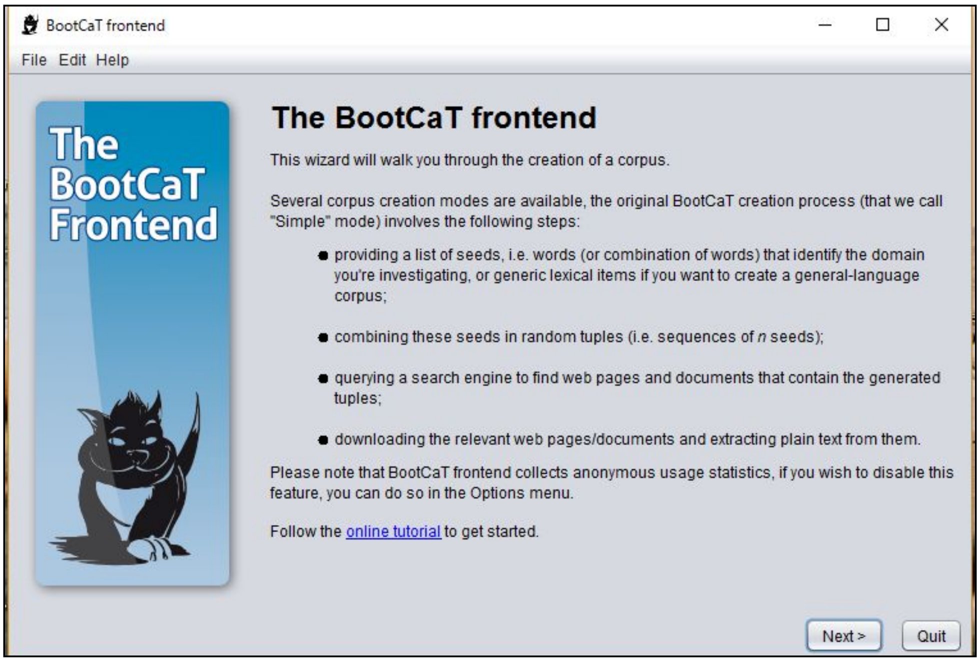
For beginners, you can scrape the web in two ways. One with BootCaT software installed on your computer (PC/Mac/Linux, free), another with SketchEngine, a web-based tool (subscription, free trial available).

BootCaT

In this example we are going to scrape the web of cooking-related language.

1. Check you have the current version of Java by downloading it from. Install it. It should take about five minutes. Download the BootCaT software from the website, http://bootcat.dipintra.it/ , then install it.

2. Start the software.



The BootCaT frontend

This wizard will walk you through the creation of a corpus.

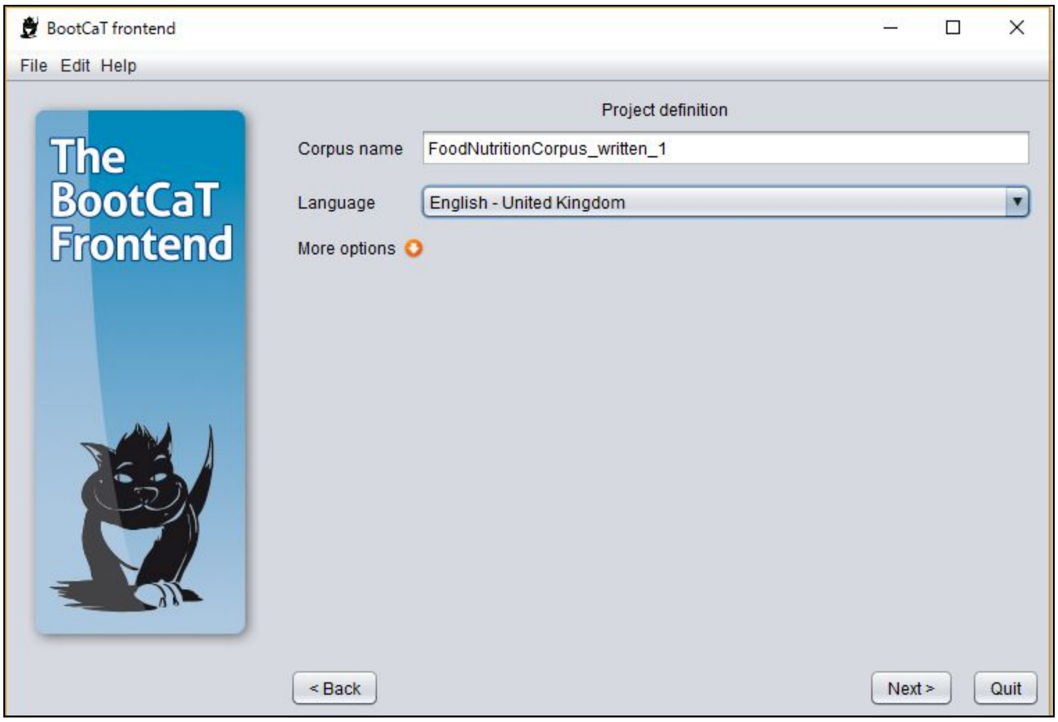
Several corpus creation modes are available, the original BootCaT creation process (that we call "Simple" mode) involves the following steps:

- providing a list of seeds, i.e. words (or combination of words) that identify the domain you're investigating, or generic lexical items if you want to create a general-language corpus;
- combining these seeds in random tuples (i.e. sequences of *n* seeds);
- querying a search engine to find web pages and documents that contain the generated tuples;
- downloading the relevant web pages/documents and extracting plain text from them.

Please note that BootCaT frontend collects anonymous usage statistics, if you wish to disable this feature, you can do so in the Options menu.

Follow the online tutorial to get started.

3. Choose a name for your corpus. I would also recommend giving it a number in case you want to edit it or redo it afterwards.

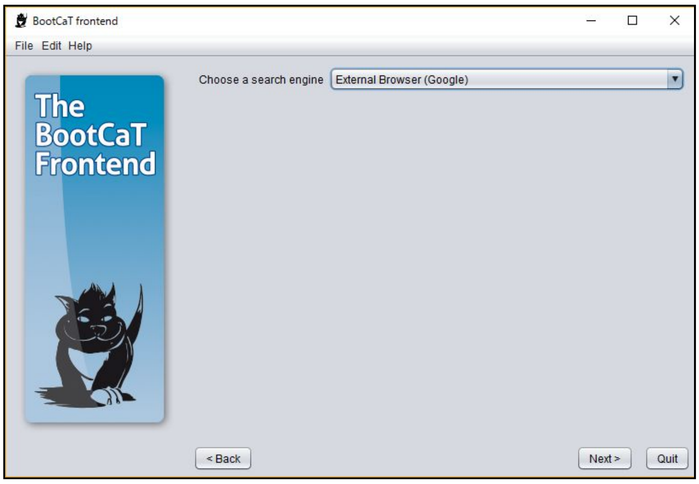


Project definition

Corpus name: FoodNutritionCorpus_written_1

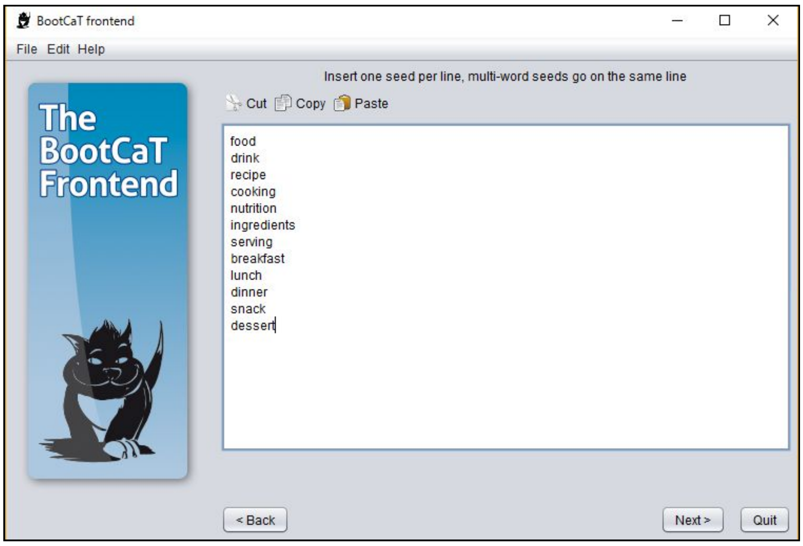
Language: English - United Kingdom

4. Click Simple Mode then choose your search engine to be Google. It is not worth the hassle of using Bing.



Choose a search engine: External Browser (Google)

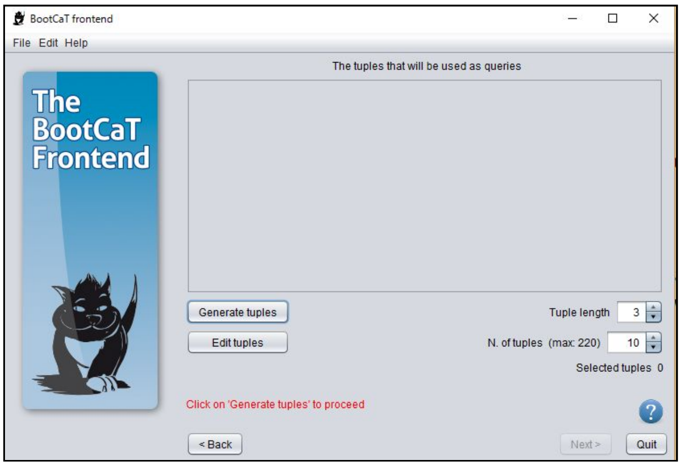
Choose your seed keywords. If you have multi-word terms these should go into a line by themselves.



Insert one seed per line, multi-word seeds go on the same line

```
food
drink
recipe
cooking
nutrition
ingredients
serving
breakfast
lunch
dinner
snack
dessert
```

5. Choose your tuples (combinations of seeds). How many seeds should combine and how many tuples do you want? In this case we will just use the default settings.



The tuples that will be used as queries

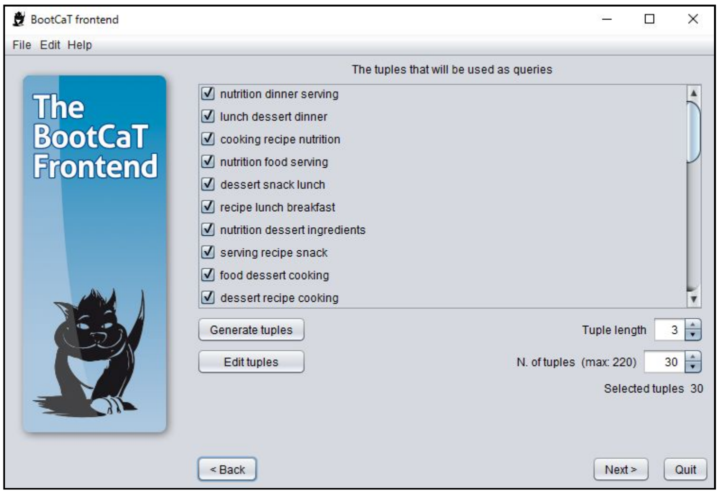
Tuple length 3

N. of tuples (max 220) 10

Selected tuples 0

Click on 'Generate tuples' to proceed

This will then generate the list and you can disable any tuples that you don't want but that is pointless in most cases because BootCaT deletes duplicate data.



The tuples that will be used as queries

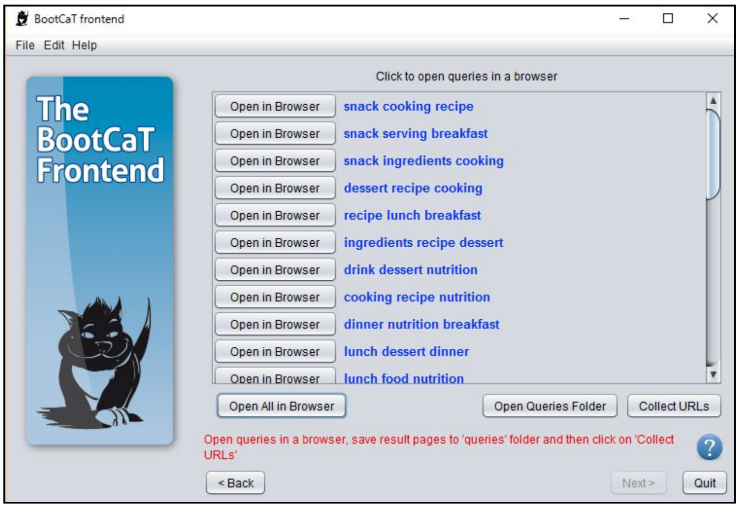
- ☑ nutrition dinner serving
- ☑ lunch dessert dinner
- ☑ cooking recipe nutrition
- ☑ nutrition food serving
- ☑ dessert snack lunch
- ☑ recipe lunch breakfast
- ☑ nutrition dessert ingredients
- ☑ serving recipe snack
- ☑ food dessert cooking
- ☑ dessert recipe cooking

Tuple length 3

N. of tuples (max 220) 30

Selected tuples 30

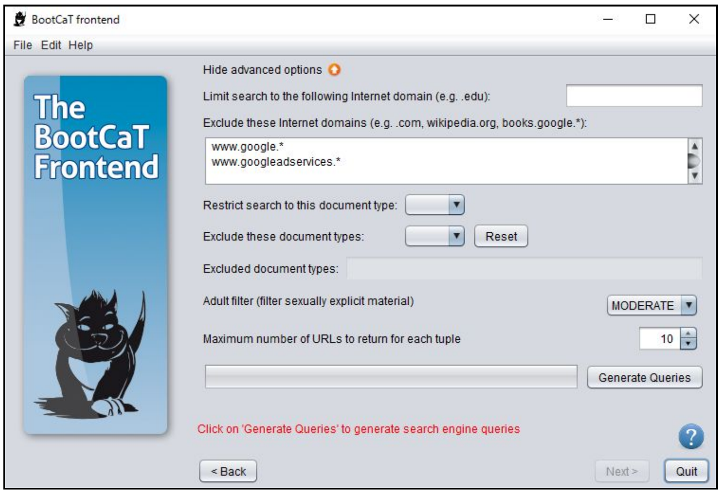
6. Generate the queries by clicking Open All in Browser, (unless you have an extremely large number of queries, over about 50, otherwise Google might lock your account if you are signed in, or block your IP address temporarily) and saving the Google search results. If Chrome is your default browser you cannot do this from the menu button. Right click on the page and (Save Page As) and choose HTML only. You need to save it into your BootCaT Corpus Directory, which is at My Documents/BootCaT Corpora/Whatever you called your corpus/queries/ .



Click to open queries in a browser

snack cooking recipe
snack serving breakfast
snack ingredients cooking
dessert recipe cooking
recipe lunch breakfast
ingredients recipe dessert
drink dessert nutrition
cooking recipe nutrition
dinner nutrition breakfast
lunch dessert dinner
lunch food nutrition

Open queries in a browser, save result pages to 'queries' folder and then click on 'Collect URLs'



Hide advanced options

Limit search to the following Internet domain (e.g. .edu):

Exclude these Internet domains (e.g. .com, wikipedia.org, books.google.*):
www.google.*
www.googleadservices.*

Restrict search to this document type:

Exclude these document types:

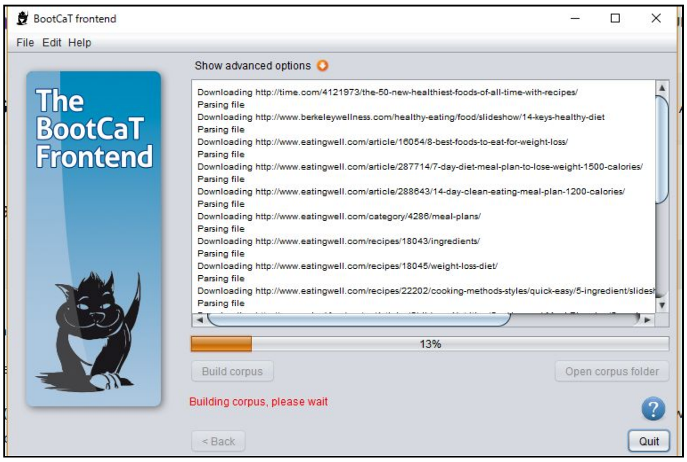
Excluded document types:

Adult filter (filter sexually explicit material) MODERATE

Maximum number of URLs to return for each tuple 10

Click on 'Generate Queries' to generate search engine queries

7. Make the corpus by waiting for BootCaT to pull the websites and clean them.



Show advanced options

```
Downloading http://time.com/4121973/the-50-new-healthiest-foods-of-all-time-with-recipes/
Parsing file
Downloading http://www.berkeleywellness.com/healthy-eating/food/slideshow/14-keys-healthy-diet
Parsing file
Downloading http://www.eatingwell.com/article/16054/8-best-foods-to-eat-for-weight-loss/
Parsing file
Downloading http://www.eatingwell.com/article/287714/7-day-diet-meal-plan-to-lose-weight-1500-calories/
Parsing file
Downloading http://www.eatingwell.com/article/288643/14-day-clean-eating-meal-plan-1200-calories/
Parsing file
Downloading http://www.eatingwell.com/category/4286/meal-plans/
Parsing file
Downloading http://www.eatingwell.com/recipes/18043/ingredients/
Parsing file
Downloading http://www.eatingwell.com/recipes/18045/weight-loss-diet/
Parsing file
Downloading http://www.eatingwell.com/recipes/22202/cooking-methods-styles/quick-easy/5-ingredient/slidesh
Parsing file
```

13%

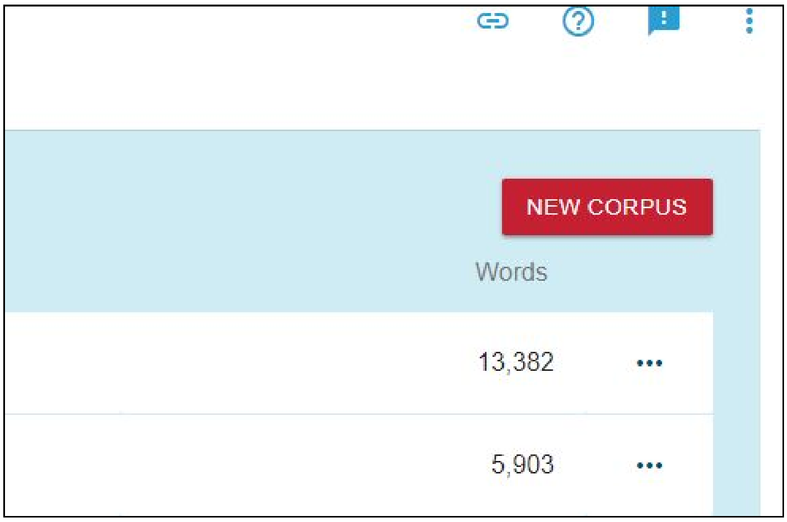
Building corpus, please wait

8. You are now ready to choose your concordancer to do the analysis: see the Corpus Analysis section below.

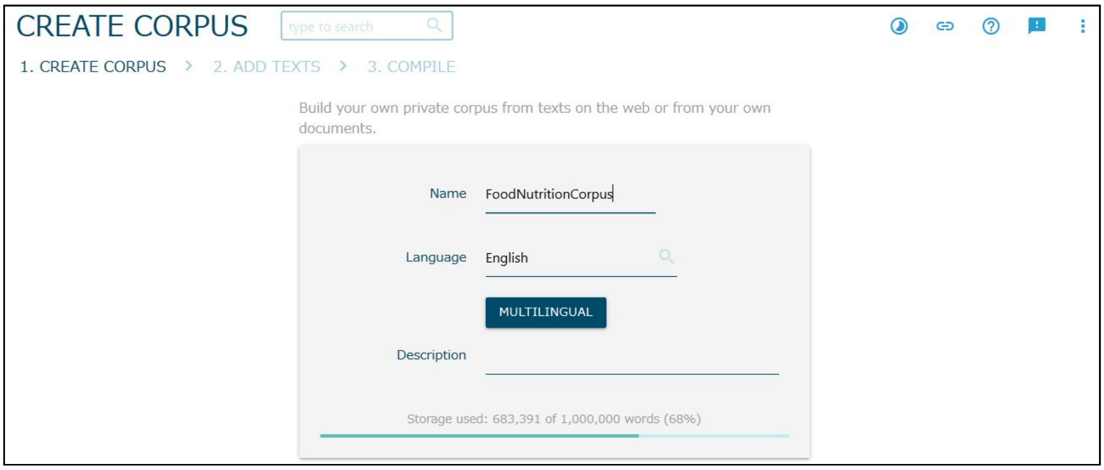
An alternative to BootCaT, which can be temperamental after Java updates, is SketchEngine. Although this requires a paid subscription (after an initial free trial), it's a powerful tool.

SketchEngine

1. Go to http://app.sketchengine.eu/ and register for a free trial.
2. You can build your own corpus or upload one. First we'll show you how to use SketchEngine in the same way as we've just demonstrated with BootCaT, i.e. by scraping the web to build a corpus.
3. Log in to SketchEngine, select the **My Corpora** tag and click **New Corpus** on the right.



4. Give your corpus a title, select the language and click **next**.



Build your own private corpus from texts on the web or from your own documents.

Name FoodNutritionCorpus

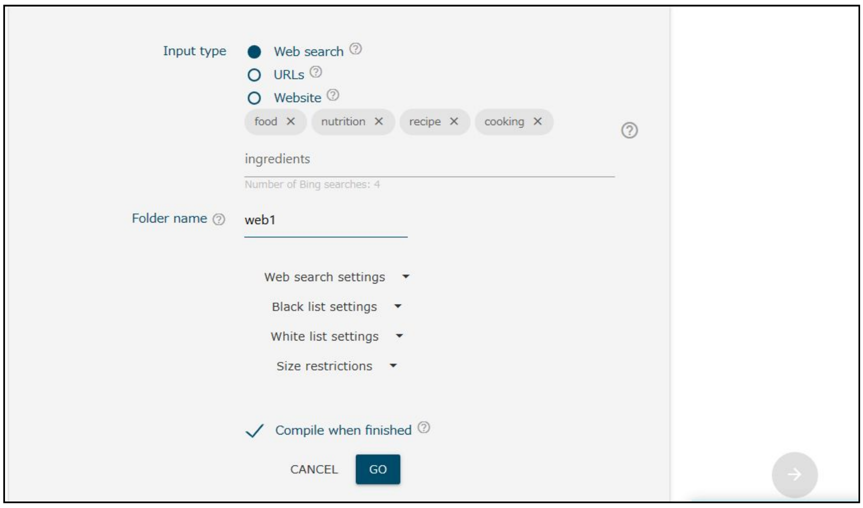
Language English

Description

Storage used: 683,391 of 1,000,000 words (68%)

5. Select **Find texts on the web**. SketchEngine gives you the option of choosing search words or websites. It is advisable to choose words for a wider variety of discourse. Choose your seed keywords. Separate them by commas. If you have

multi-word terms these should be spaced as normal with a comma after the multi-word terms themselves.



Input type
● Web search
○ URLs
○ Website

food ✕ nutrition ✕ recipe ✕ cooking ✕

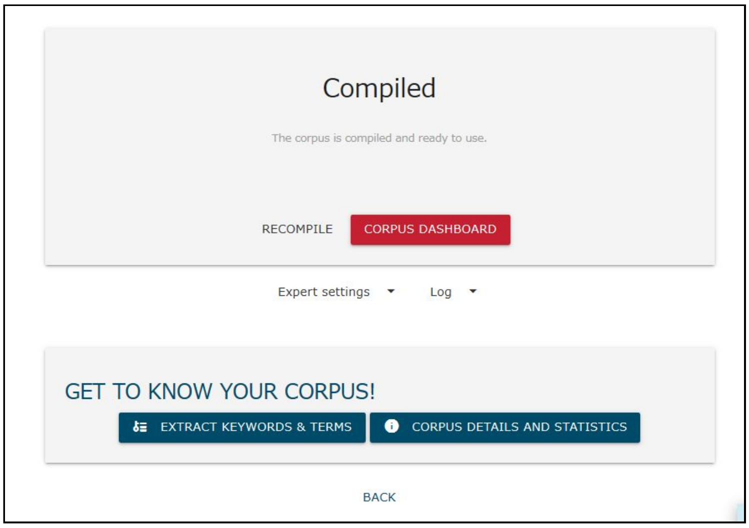
ingredients

Number of Bing searches: 4

Folder name: web1

✓ Compile when finished

6. You can choose how big the files should be. It is probably best not to fiddle with these numbers. SketchEngine works well with PDF files so big files should be included. Remember that a webpage is usually only a matter of kilobytes so the small size is useful. SketchEngine will tell you when it is finished.



Compiled

The corpus is compiled and ready to use.

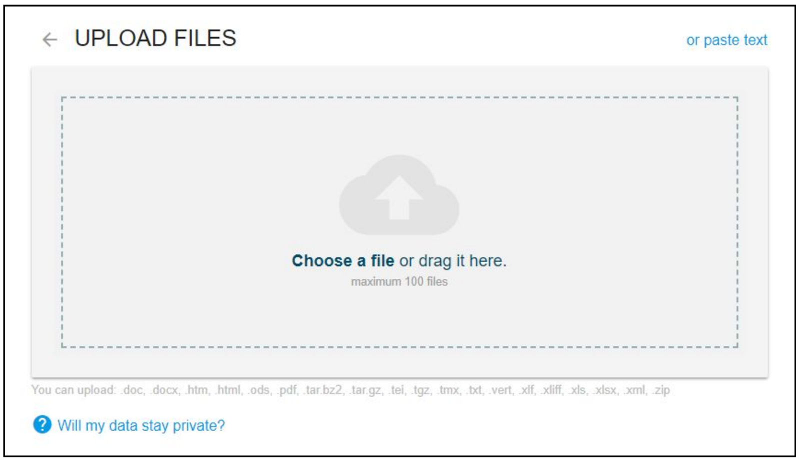
GET TO KNOW YOUR CORPUS!

Compiling your own corpus

In this instance we will look only at SketchEngine, which is by far the easiest as it accepts a wide range of document formats and does all the tagging automatically.

The advantage of compiling your own corpus over scraping is that by collecting examples of specific target discourse. e.g. medical abstracts or transcriptions of Scrum demo dialogues, we can analyse language as it is used to complete the target task, rather than the wider language of the domain.

1. Collect your examples of target discourse e.g. in .txt, .doc or .pdf format and place them in a folder on your computer. They could be examples of texts written for a specific purpose, or transcriptions of spoken English that you have typed up yourself or used YouTube to create. See the Session 3 Extension for more information on how to do this.
2. Follow the above steps on using SketchEngine to scrape a corpus, until **Step 5**. This time, however, select: **I have my own texts**.
3. Select and drag files from the folder your created into the upload box.

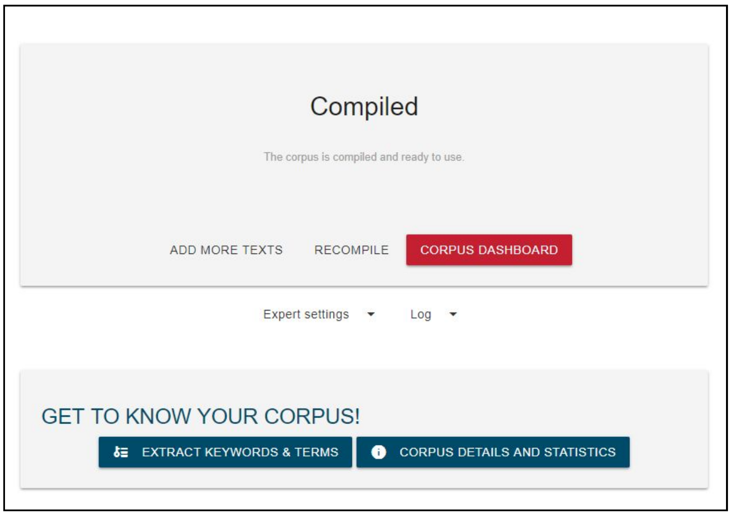


Choose a file or drag it here.
maximum 100 files

You can upload: .doc, .docx, .htm, .html, .ods, .pdf, .tar.bz2, .tar.gz, .tei, .tgz, .tmx, .txt, .vert, .xlf, .xliff, .xls, .xlsx, .xml, .zip

Will my data stay private?

4. Wait until your texts have been processed. You can add more texts or folders in the meantime.
5. Click **Compile** and shortly your corpus should be ready to analyse.


Compiled

The corpus is compiled and ready to use.

Corpus Analysis

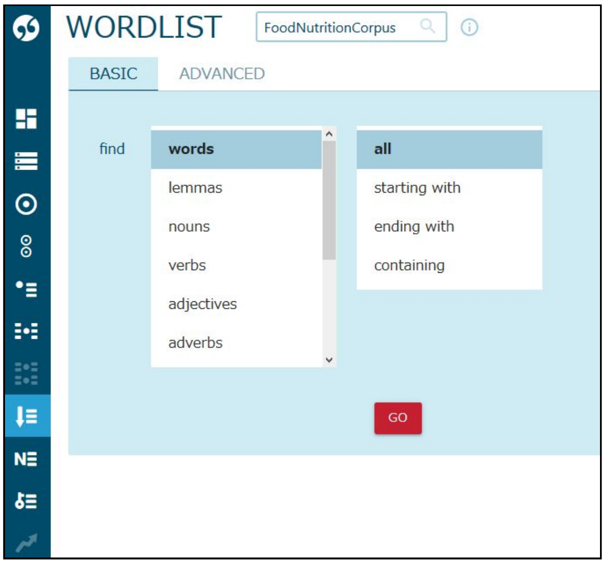
The main way language teachers have their first encounter with corpus linguistics is through dictionaries or vocabulary lists in coursebooks. While dictionaries and word lists both have their uses, most coursebooks contain very little in the way of real-life tasks. One way that we can bring authentic language into authentic situations for our learners is by analysing corpora. In this section, we'll use SketchEngine first, then some free software called AntConc made by Laurence Anthony, an academic in Japan who also teaches English for Specific Purposes. Finally, we'll take a quick look at the Brigham Young University corpus interface (BYU Online corpora).

Some output we are likely to want from the corpora we are investigating:

- **Concordances** - samples of your corpus, with your search term in the middle. Your concordancer usually shows between 10-20 lines of examples. You won't usually get full sentences but you can click to get the full context. The concordance functions are extremely similar in SketchEngine, BYU Online Corpus and AntConc. You can search for single words, phrases and you can also search for parts of words using wild card functions like * and ?. The wildcard functions let you leave a gap so you can search for grammatical patterns in AntConc. Additionally, if you have programming experience, you can also search using Regex, which can save you time, but is not essential for our purposes.
- **Word list** - the words in the corpus ordered by frequency;
- **Keyword list** - the words in the corpus that occur at a statistically higher frequency than those in a reference corpus. This is often referred to as 'keyness' which is positive for higher frequency words, and negative for words that appear statistically more frequently in the reference corpus.
- **N-Grams** - these are essentially chunks of language ordered by frequency. It's usually a good idea to check the frequency of N-Grams against high frequency words because some of your N-Grams are likely to be more high frequency than your key words. The name comes from the length being N words long, or the user chooses how long they are. Mostly you'll choose up to five words long.
- **Collocates** - these are words that appear within a certain distance of your search term. The default settings in most tools are 5L 5R, which simply means within five words to the left and five words to the right.
- **Clusters** - these are lists of words that are frequently to the left or to the right of your search term.

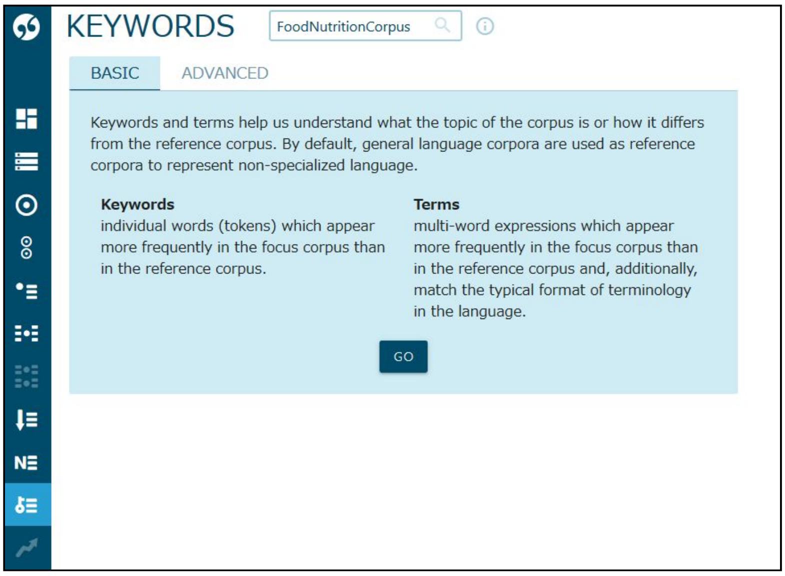
SketchEngine

In the sections above, you made a corpus either by scraping the web or uploading your own folder of texts. You're ready to analyse that corpus now. It's a good idea to generate your word list first (the most frequently occuring words in your corpus). This will give you an idea of how frequent your search terms are (in the case of a scraped corpus) and if any other specific terms are high in the list. It might mean going back a stage and remaking your corpus (and possibly deleting the one you just made due to lack of storage space).



Your **keyword list** is also incredibly useful. It is a list of the most probable words to occur in your corpus as compared to a reference corpus. The reference corpus is just another corpus, usually much larger, that you compare your own corpus to. The default reference corpus in SketchEngine is their own EnTenTen15 web corpus (which is around a billion words in size). You can change this to other corpora such as BNC15 (British National Corpus, 2015) and COCA (Corpus of Contemporary American English). For specialised corpora, such as healthcare, it gives you an idea of how much jargon you might expect in typical written communication, and therefore how much of this would need to be known for spoken communication.

Alongside the keyword list, the new version of SketchEngine will also generate a list of key **N-Grams** or **terms**. There's more on this below. It's worth noting that all lists on SketchEngine can be downloaded in PDF, CSV, XLS and XML formats.



KEYWORDS FoodNutritionCorpus

BASIC ADVANCED

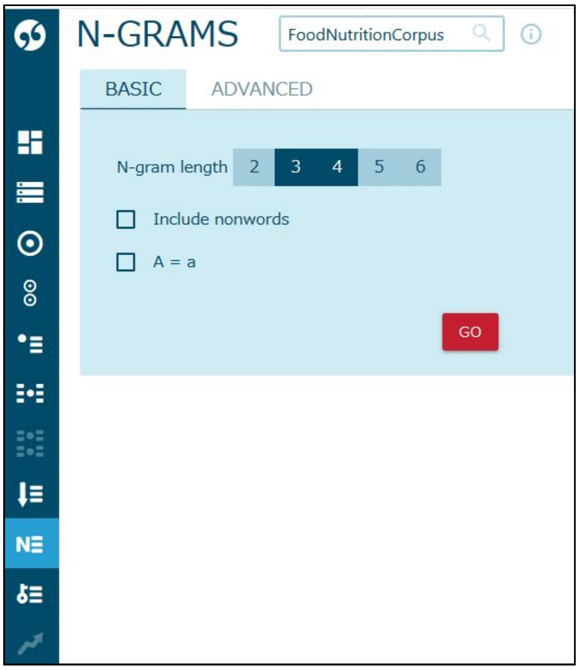
Keywords and terms help us understand what the topic of the corpus is or how it differs from the reference corpus. By default, general language corpora are used as reference corpora to represent non-specialized language.

Keywords
individual words (tokens) which appear more frequently in the focus corpus than in the reference corpus.

Terms
multi-word expressions which appear more frequently in the focus corpus than in the reference corpus and, additionally, match the typical format of terminology in the language.

GO

You can also generate a separate **N-Gram list**. If you choose your N-Gram to be 3 or 4 words long (the default) you get three-to-four word chunks ranked by frequency in the corpus. You can also specify the minimum range (how many texts each N-Gram should appear in). Don't be afraid to fiddle with these settings until you get something you can work with. It's really useful for finding idioms and discourse markers, and especially for pragmatic functions like hedging.



N-GRAMS FoodNutritionCorpus

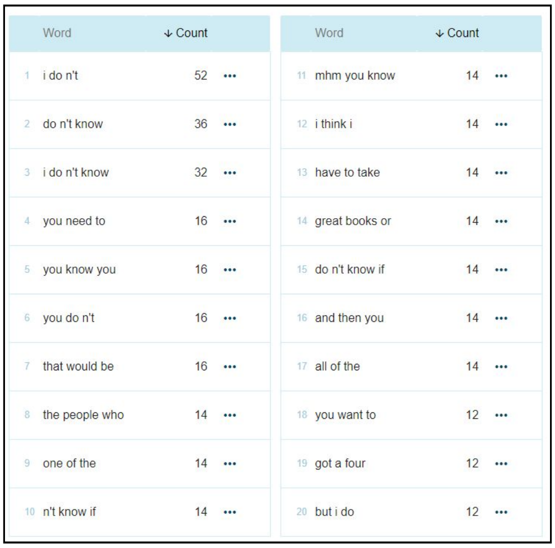
BASIC ADVANCED

N-gram length 2 **3** **4** 5 6

☐ Include nonwords

☐ A = a

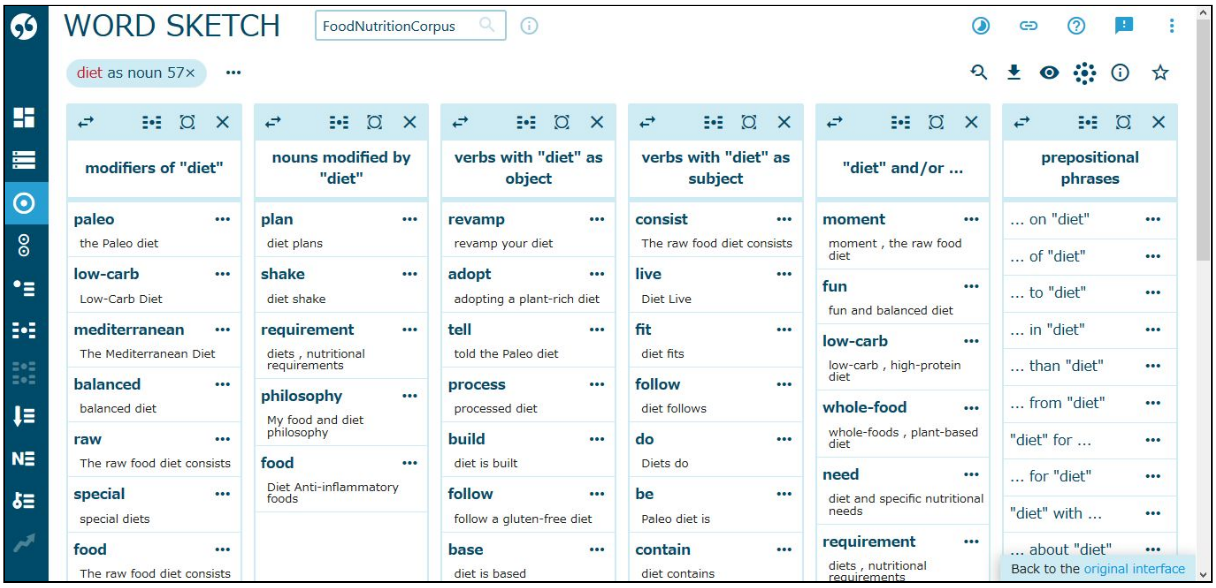
GO



	Word	↓ Count
1	i do n't	52
2	do n't know	36
3	i do n't know	32
4	you need to	16
5	you know you	16
6	you do n't	16
7	that would be	16
8	the people who	14
9	one of the	14
10	n't know if	14
11	mhm you know	14
12	i think i	14
13	have to take	14
14	great books or	14
15	do n't know if	14
16	and then you	14
17	all of the	14
18	you want to	12
19	got a four	12
20	but i do	12

Most frequent N-Grams in spoken academic advice sessions: from R. C. Simpson, S. L. Briggs, J. Ovens, and J. M. Swales. (1999) The Michigan Corpus of Academic Spoken English. Ann Arbor, MI: The Regents of the University of Michigan

Finally, the **Word Sketch** function is the major advantage of SketchEngine. You can type in a lemma (root form of a word. e.g. ‘ride’ is a lemma, ‘rides’, ‘riding’ and ‘rider’ are not lemmas). It will give you a comprehensive display of how the word collocates with different words and different parts of speech. It’s a good idea to run the Word Sketch on at least the top 20 or so keywords. This should give you an idea of any obvious ‘marked’ (somewhat unusual) language use, such as nominal modification (nouns used to modify nouns as opposed to adjectival modification), which is often a feature of technical/scientific language.



modifiers of "diet"	nouns modified by "diet"	verbs with "diet" as object	verbs with "diet" as subject	"diet" and/or ...	prepositional phrases
paleo the Paleo diet	**plan** diet plans	**revamp** revamp your diet	**consist** The raw food diet consists	**moment** moment , the raw food diet	... on "diet"
low-carb Low-Carb Diet	**shake** diet shake	**adopt** adopting a plant-rich diet	**live** Diet Live	**fun** fun and balanced diet	... of "diet"
mediterranean The Mediterranean Diet	**requirement** diets , nutritional requirements	**tell** told the Paleo diet	**fit** diet fits	**low-carb** low-carb , high-protein diet	... to "diet"
balanced balanced diet	**philosophy** My food and diet philosophy	**process** processed diet	**follow** diet follows	**whole-food** whole-foods , plant-based diet	... in "diet"
raw The raw food diet consists	**food** Diet Anti-inflammatory foods	**build** diet is built	**do** Diets do	**need** diet and specific nutritional needs	... than "diet"
special special diets		**follow** follow a gluten-free diet	**be** Paleo diet is	**requirement** diets , nutritional requirements	... from "diet"
food The raw food diet consists		**base** diet is based	**contain** diet contains		"diet" for ...
					... for "diet"
					"diet" with ...
					... about "diet"

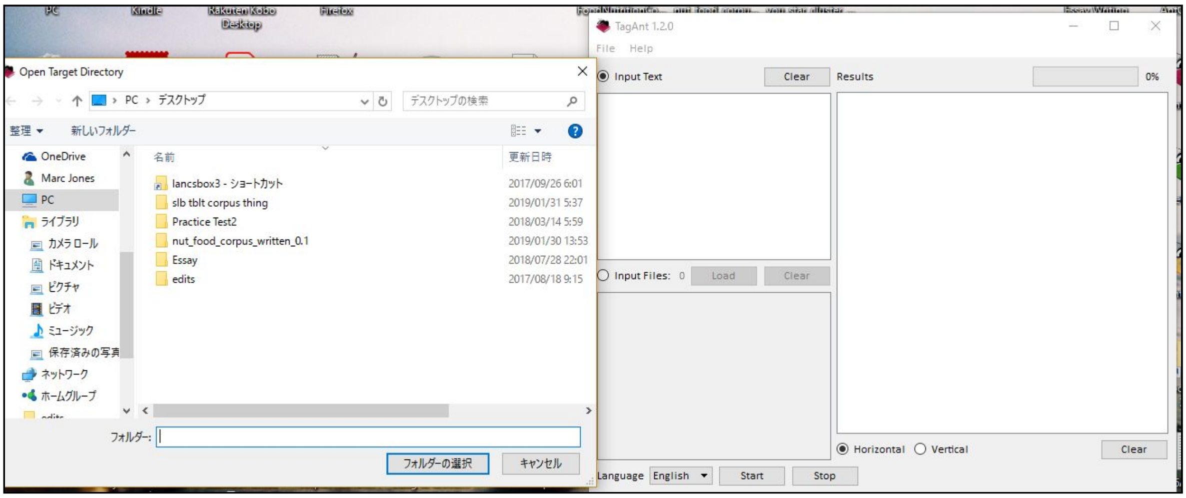
AntConc

This is another way to analyse corpora you have compiled yourself, and is free. However, it involves more work on your part.

1. Go to Laurence Anthony’s webpage http://www.laurenceanthony.net/software.html . Download **AntConc** if you haven’t already. You might also download **TagAnt** and the tag list, too. You should also download some useful word lists, such as the BNC British English word list and BNC American English word list in AntConc format from Paul Baker’s website: https://www.lancaster.ac.uk/linguistics/about-us/people/paul-baker . You’ll need to scroll down quite far. It’s probably more useful to have these word lists on your desktop than in your downloads folder so move them before you start.

2. If you are using a corpus you made in BootCaT, it is not tagged yet. If you are using a corpus that you know is tagged, skip to step 3.

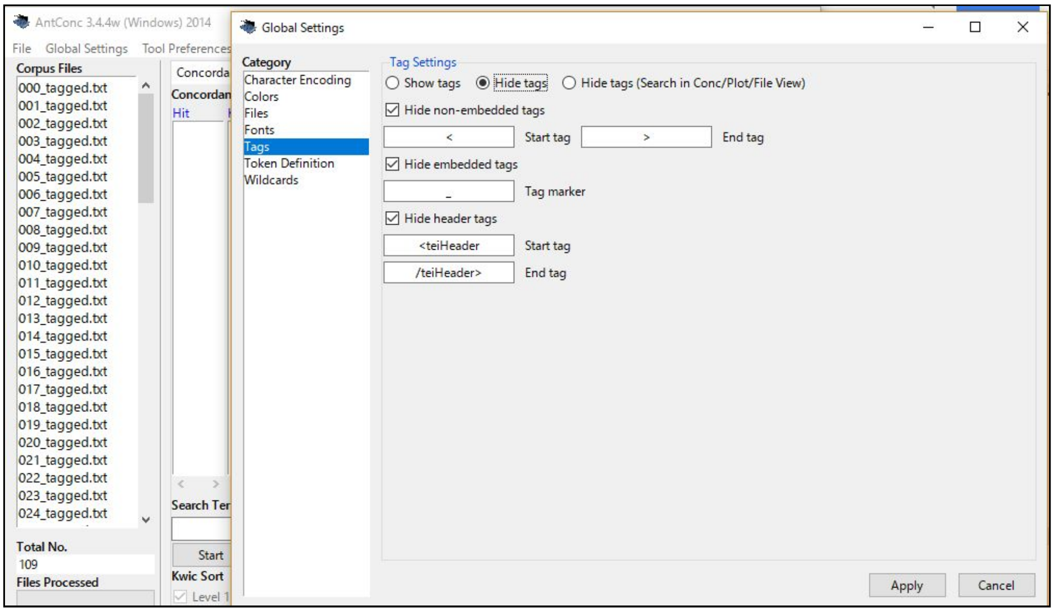
   Open TagAnt. Your corpus you made is in a directory that is usually at My Documents/BootCaT Corpora/Name of your corpus project/ so go to File > Open Directory and choose the directory your corpus is in. Load and start. It shouldn’t take much longer than a couple of minutes.



3. AntConc runs as an executable file which means you can run it from a USB flash drive or your computer. Open the file and tell your computer that you really do want to run the file.

4. Go to File > Open Directory and choose the directory your corpus is in.

5. Next, open Global Settings. We'll start with tags hidden. Click Apply after you change this setting.


Global Settings — Category: Tags

Tag Settings

○ Show tags ● Hide tags ○ Hide tags (Search in Conc/Plot/File View)

☑ Hide non-embedded tags

< Start tag > End tag

☑ Hide embedded tags

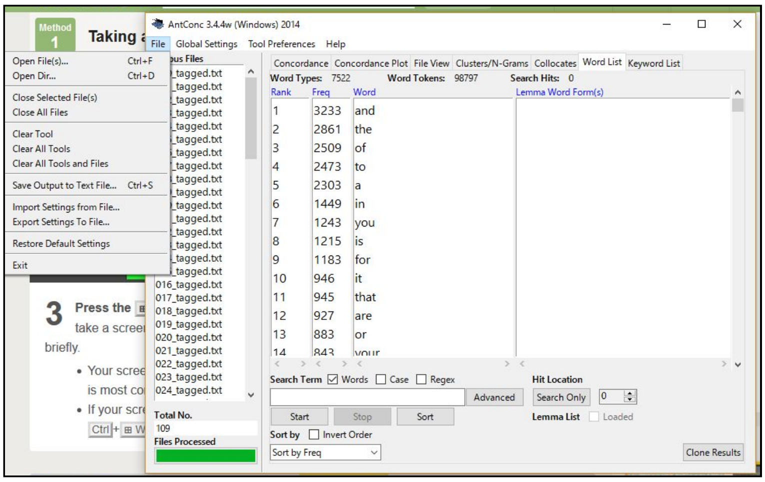
_ Tag marker

☑ Hide header tags

<teiHeader Start tag

/teiHeader> End tag

6. Go to **Word List**. Click start. You have your word list and you can export it as a text file by clicking File > Save Output As.



Word Types: 7522 Word Tokens: 98797 Search Hits: 0

Rank	Freq	Word
1	3233	and
2	2861	the
3	2509	of
4	2473	to
5	2303	a
6	1449	in
7	1243	you
8	1215	is
9	1183	for
10	946	it
11	945	that
12	927	are
13	883	or
14	843	your

Lemma Word Form(s)

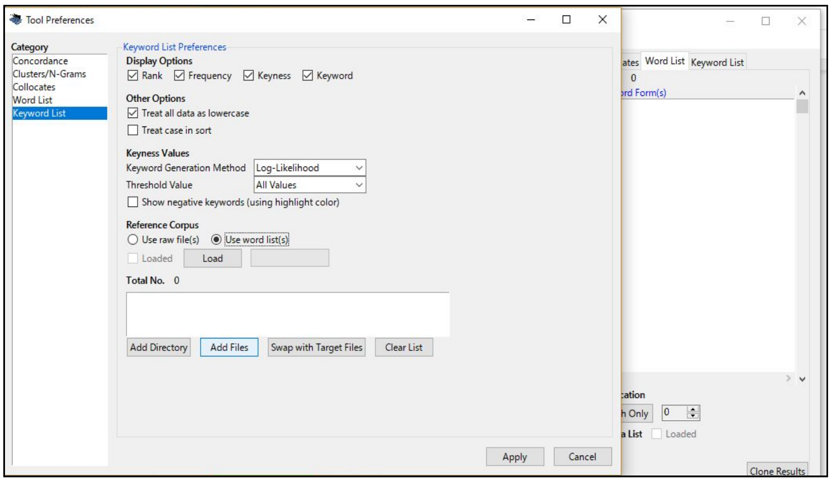
Corpus Files: _tagged.txt ... 016_tagged.txt, 017_tagged.txt, 018_tagged.txt, 019_tagged.txt, 020_tagged.txt, 021_tagged.txt, 022_tagged.txt, 023_tagged.txt, 024_tagged.txt

Total No. 109

Files Processed

Sort by Freq

7. To generate your **keywords** list you need to load a word list or a reference corpus (see part 1 of this section), then click apply. You probably don’t have a whole reference corpus but you have word lists. Go to **Tool Preferences**, choose your word list, load it and then click **Apply**.



Keyword List Preferences

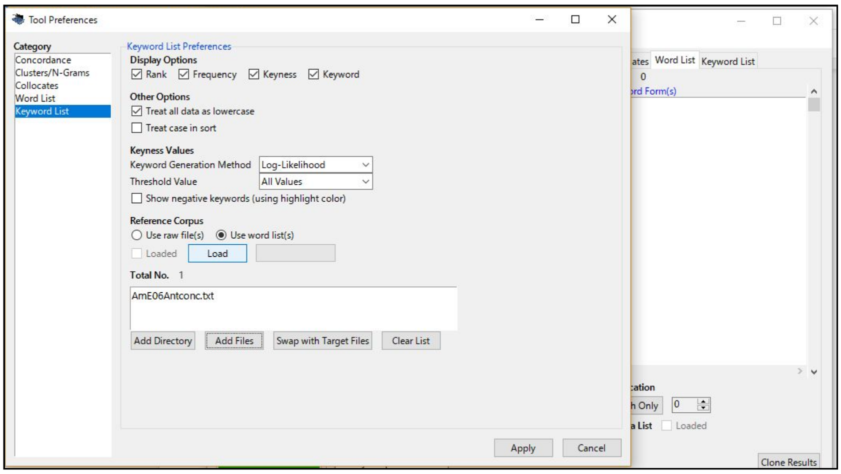
Display Options
☑ Rank ☑ Frequency ☑ Keyness ☑ Keyword

Other Options
☑ Treat all data as lowercase
☐ Treat case in sort

Keyness Values
Keyword Generation Method: Log-Likelihood
Threshold Value: All Values
☐ Show negative keywords (using highlight color)

Reference Corpus
○ Use raw file(s) ● Use word list(s)
☐ Loaded

Total No. 0



Keyword List Preferences

Display Options
☑ Rank ☑ Frequency ☑ Keyness ☑ Keyword

Other Options
☑ Treat all data as lowercase
☐ Treat case in sort

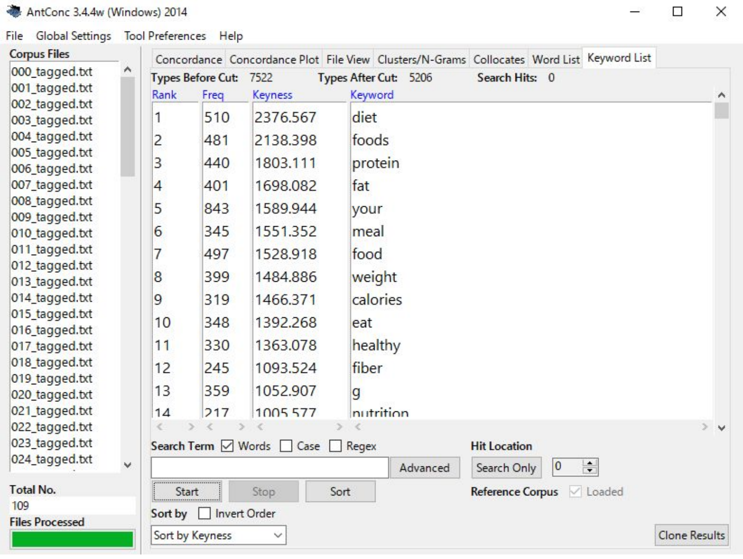
Keyness Values
Keyword Generation Method: Log-Likelihood
Threshold Value: All Values
☐ Show negative keywords (using highlight color)

Reference Corpus
○ Use raw file(s) ● Use word list(s)
☐ Loaded Load

Total No. 1

AmE06Antconc.txt

8. Generate your keyword list. Save your output again.



Corpus Files
000_tagged.txt
001_tagged.txt
002_tagged.txt
003_tagged.txt
004_tagged.txt
005_tagged.txt
006_tagged.txt
007_tagged.txt
008_tagged.txt
009_tagged.txt
010_tagged.txt
011_tagged.txt
012_tagged.txt
013_tagged.txt
014_tagged.txt
015_tagged.txt
016_tagged.txt
017_tagged.txt
018_tagged.txt
019_tagged.txt
020_tagged.txt
021_tagged.txt
022_tagged.txt
023_tagged.txt
024_tagged.txt

Total No. 109
Files Processed

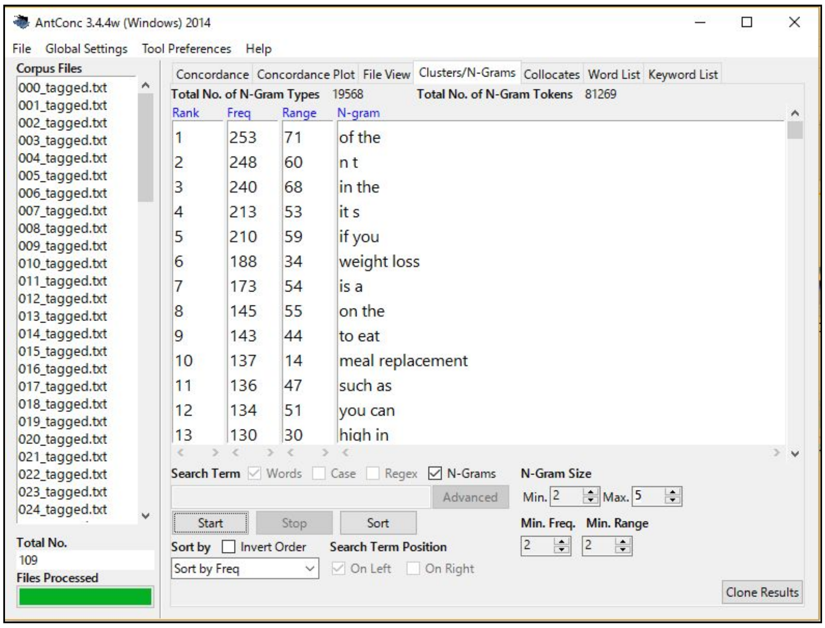
Types Before Cut: 7522 Types After Cut: 5206 Search Hits: 0

Rank	Freq	Keyness	Keyword
1	510	2376.567	diet
2	481	2138.398	foods
3	440	1803.111	protein
4	401	1698.082	fat
5	843	1589.944	your
6	345	1551.352	meal
7	497	1528.918	food
8	399	1484.886	weight
9	319	1466.371	calories
10	348	1392.268	eat
11	330	1363.078	healthy
12	245	1093.524	fiber
13	359	1052.907	g
14	217	1005.577	nutrition

Search Term ☑ Words ☐ Case ☐ Regex
Hit Location: Search Only 0
Reference Corpus ☑ Loaded
Sort by ☐ Invert Order
Sort by Keyness

If you are using a corpus which is just one text file (and some corpora are set up like this) set the minimum range (number of text files in the corpus) to 1 in the following steps, otherwise you will have no output.

9. You can also generate N-Grams and clusters. N-Grams are easiest. Choose the minimum and maximum size of N-Gram and minimum range you want each one to occur in. Again, do not be afraid to fiddle with things here. When you are ready you can save your output again.



Total No. 109

Files Processed

Total No. of N-Gram Types 19568 Total No. of N-Gram Tokens 81269

Rank	Freq	Range	N-gram
1	253	71	of the
2	248	60	n t
3	240	68	in the
4	213	53	it s
5	210	59	if you
6	188	34	weight loss
7	173	54	is a
8	145	55	on the
9	143	44	to eat
10	137	14	meal replacement
11	136	47	such as
12	134	51	you can
13	130	30	high in

Search Term ☑ Words □ Case □ Regex ☑ N-Grams

N-Gram Size Min. 2 Max. 5

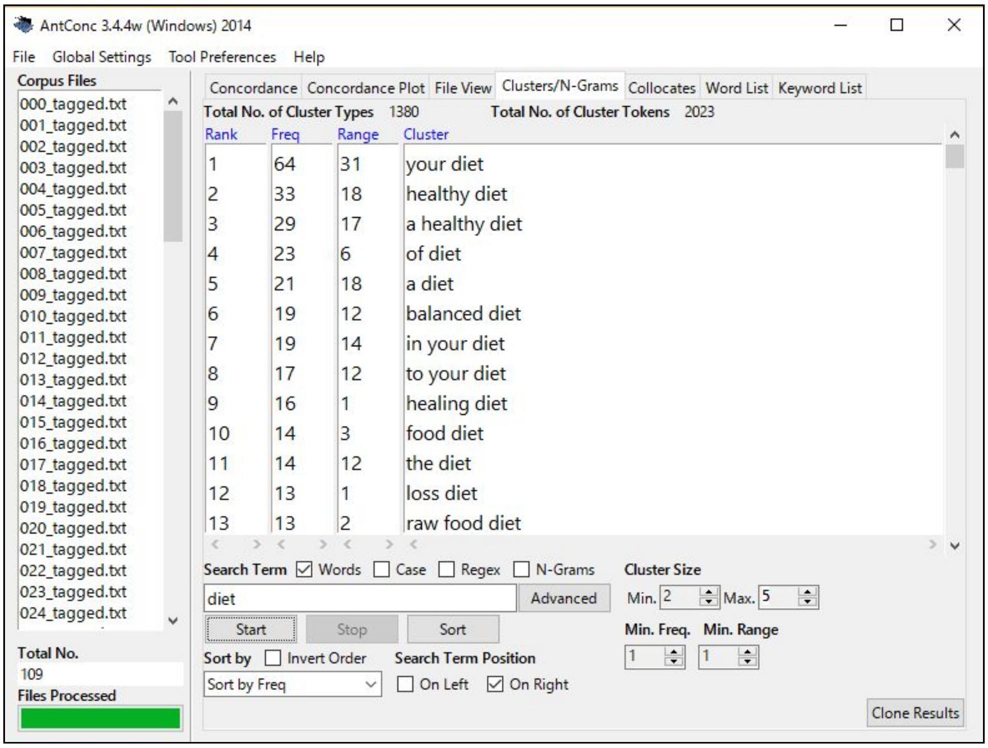
Min. Freq. 2 Min. Range 2

Sort by □ Invert Order

Sort by Freq

Search Term Position ☑ On Left □ On Right

10. Clusters are groups of words with your chosen word at either the left of the cluster or the right. Check the cluster box, set your size and range (quite low is usually better). Type a word then press Start. You can save these to text files in exactly the same way. The same applies regarding minimum range here.



Total No. 109

Files Processed

Total No. of Cluster Types 1380 Total No. of Cluster Tokens 2023

Rank	Freq	Range	Cluster
1	64	31	your diet
2	33	18	healthy diet
3	29	17	a healthy diet
4	23	6	of diet
5	21	18	a diet
6	19	12	balanced diet
7	19	14	in your diet
8	17	12	to your diet
9	16	1	healing diet
10	14	3	food diet
11	14	12	the diet
12	13	1	loss diet
13	13	2	raw food diet

Search Term ☑ Words □ Case □ Regex □ N-Grams

diet

Cluster Size Min. 2 Max. 5

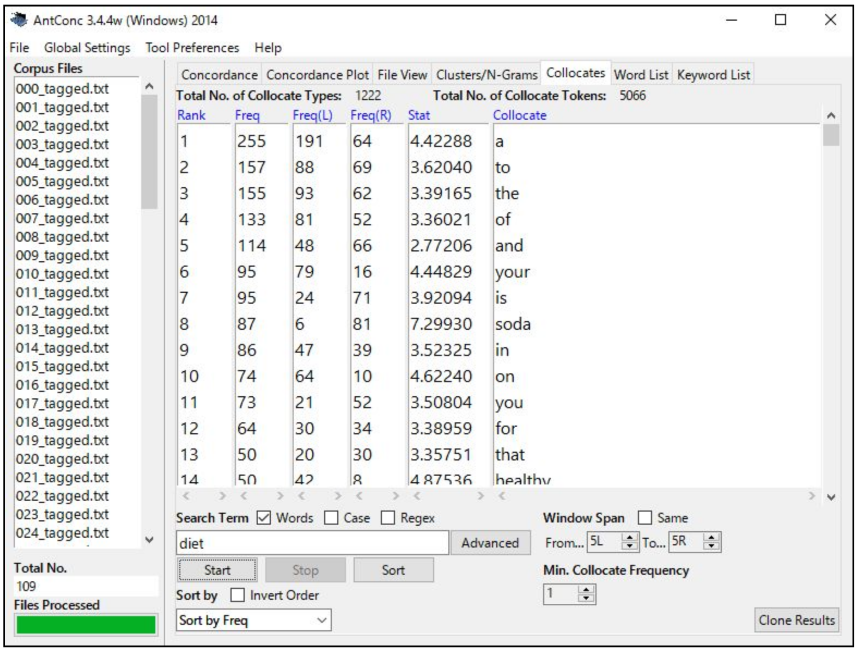
Min. Freq. 1 Min. Range 1

Sort by □ Invert Order

Sort by Freq

Search Term Position □ On Left ☑ On Right

11. **Collocates** in AntConc generates words that appear within different proximities to your search term. The default search is 5L,5R, or five words to the left and to the right of your search term. You get to see if the collocating words occur to the right, the left and their frequencies. You can also save this as a text file.



Total No. of Collocate Types: 1222 Total No. of Collocate Tokens: 5066

Rank	Freq	Freq(L)	Freq(R)	Stat	Collocate
1	255	191	64	4.42288	a
2	157	88	69	3.62040	to
3	155	93	62	3.39165	the
4	133	81	52	3.36021	of
5	114	48	66	2.77206	and
6	95	79	16	4.44829	your
7	95	24	71	3.92094	is
8	87	6	81	7.29930	soda
9	86	47	39	3.52325	in
10	74	64	10	4.62240	on
11	73	21	52	3.50804	you
12	64	30	34	3.38959	for
13	50	20	30	3.35751	that
14	50	42	8	4.87536	healthy

Search Term ☑ Words □ Case □ Regex

diet

Window Span □ Same

From... 5L To... 5R

Min. Collocate Frequency 1

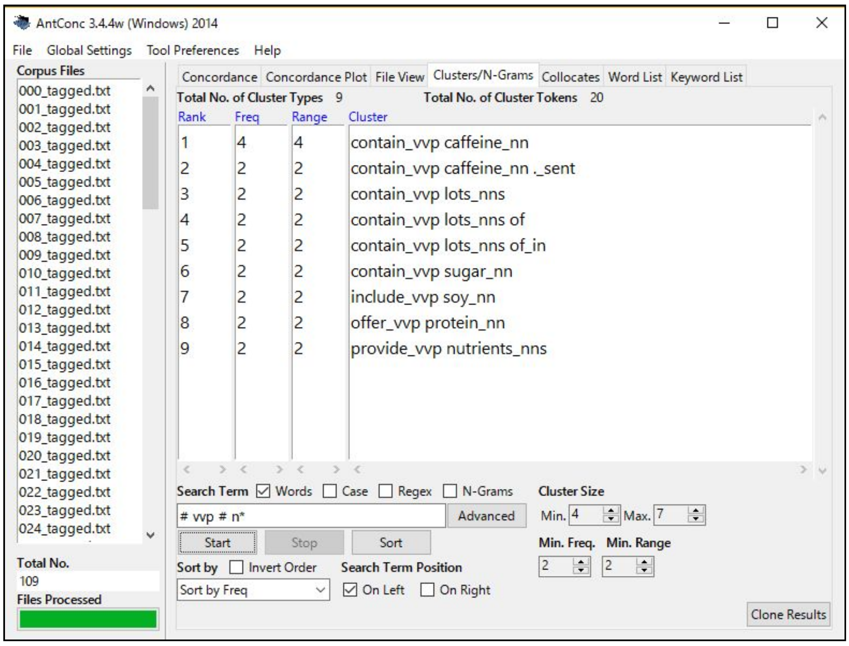
Total No. 109

Files Processed

Sort by □ Invert Order

Sort by Freq

12. To search for grammar patterns, you can go to Global Settings and choose show tags. Cluster, collocates and concordance tools are the most useful for syntax (word order and pattern) investigations. You might want to see if a given noun is more usually preceded by adjectives or nouns. You can click to see examples of these. Tree Tagger tags (the tags used in TagAnt) for simple adjectives are '_jj' and for singular nouns '_nn'. To search for [infinite verb + noun] patterns, search "# vvp # n*". # and * are wildcard characters. # means 'any one word' and * means 'one or more characters'. This means we search for ['any one word' 'vvp' 'any one word' 'any noun tag'] because all noun tags start with n and are two or three characters long. It may be useful to search this in the cluster tool on the left as well as the concordance tool.



Total No. of Cluster Types 9 Total No. of Cluster Tokens 20

Rank	Freq	Range	Cluster
1	4	4	contain_vvp caffeine_nn
2	2	2	contain_vvp caffeine_nn ._sent
3	2	2	contain_vvp lots_nns
4	2	2	contain_vvp lots_nns of
5	2	2	contain_vvp lots_nns of_in
6	2	2	contain_vvp sugar_nn
7	2	2	include_vvp soy_nn
8	2	2	offer_vvp protein_nn
9	2	2	provide_vvp nutrients_nns

Search Term ☑ Words □ Case □ Regex □ N-Grams

vvp # n*

Cluster Size Min. 4 Max. 7

Min. Freq. 2 Min. Range 2

Total No. 109

Files Processed

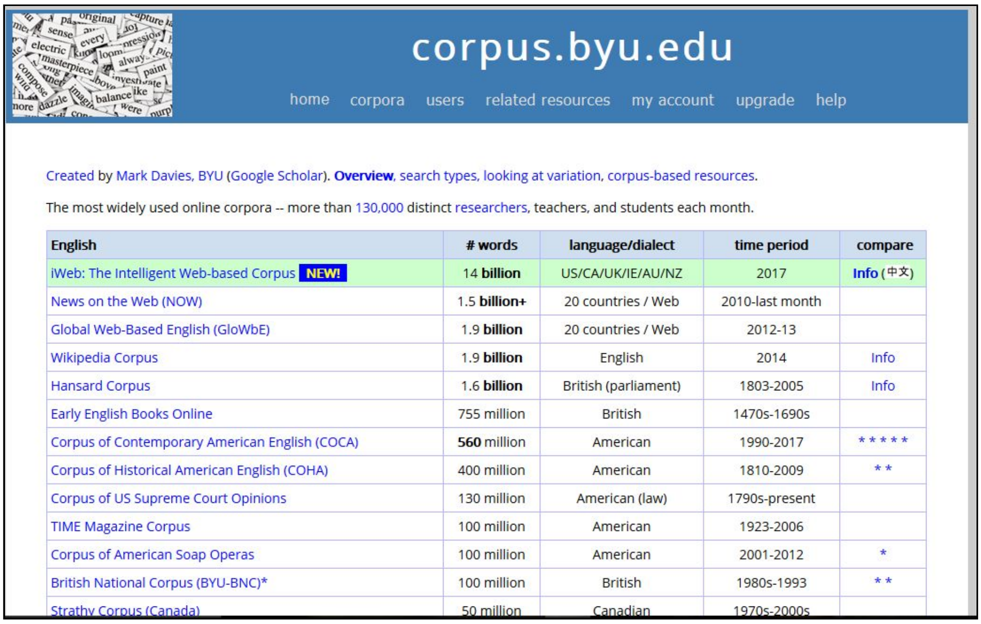
Sort by □ Invert Order

Sort by Freq

Search Term Position ☑ On Left □ On Right

BYU Online Corpora

There are several different corpora available at https://corpus.byu.edu/. These are handy for more general applications, as well as for getting used to how corpora work. If you need to analyse ‘general’ written English, the iWeb or GloWBe corpora may be useful. If you have certain localities in mind, like the US, COCA could be useful and for Canada, there is the Strathy corpus. The Corpus of American Soap Operas could also be handy for generalised spoken language.

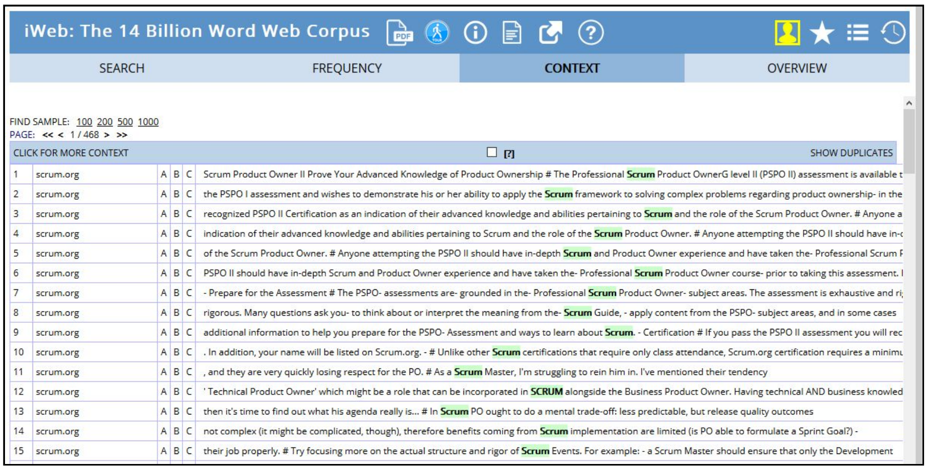

corpus.byu.edu
home corpora users related resources my account upgrade help

Created by Mark Davies, BYU (Google Scholar). **Overview**, search types, looking at variation, corpus-based resources.

The most widely used online corpora -- more than 130,000 distinct researchers, teachers, and students each month.

English	# words	language/dialect	time period	compare
iWeb: The Intelligent Web-based Corpus NEW!	14 **billion**	US/CA/UK/IE/AU/NZ	2017	**Info** (中文)
News on the Web (NOW)	1.5 **billion+**	20 countries / Web	2010-last month	
Global Web-Based English (GloWbE)	1.9 **billion**	20 countries / Web	2012-13	
Wikipedia Corpus	1.9 **billion**	English	2014	Info
Hansard Corpus	1.6 **billion**	British (parliament)	1803-2005	Info
Early English Books Online	755 million	British	1470s-1690s	
Corpus of Contemporary American English (COCA)	**560** million	American	1990-2017	* * * * *
Corpus of Historical American English (COHA)	400 million	American	1810-2009	* *
Corpus of US Supreme Court Opinions	130 million	American (law)	1790s-present	
TIME Magazine Corpus	100 million	American	1923-2006	
Corpus of American Soap Operas	100 million	American	2001-2012	*
British National Corpus (BYU-BNC)*	100 million	British	1980s-1993	* *
Strathy Corpus (Canada)	50 million	Canadian	1970s-2000s	

¡You can search for words and collocates, much like in SketchEngine or AntConc above. Unfortunately, there is no N-Gram search in the BYU Online corpus interface. You may want to look at the KWIC concordances.

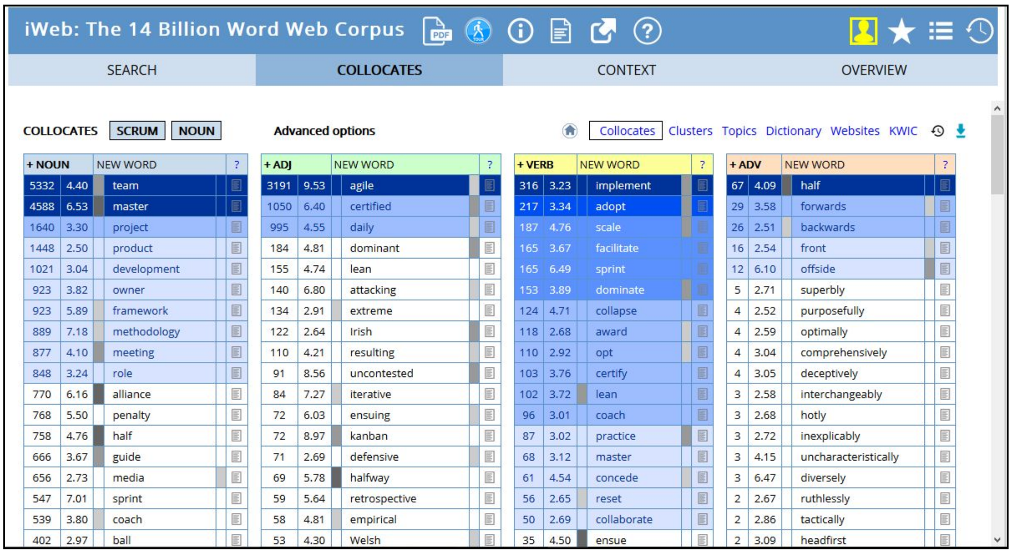


FIND SAMPLE: 100 200 500 1000
PAGE: << < 1 / 468 > >>

CLICK FOR MORE CONTEXT □ [?] SHOW DUPLICATES

1	scrum.org	A	B	C	Scrum Product Owner II Prove Your Advanced Knowledge of Product Ownership # The Professional **Scrum** Product OwnerG level II (PSPO II) assessment is available t
2	scrum.org	A	B	C	the PSPO I assessment and wishes to demonstrate his or her ability to apply the **Scrum** framework to solving complex problems regarding product ownership- in the
3	scrum.org	A	B	C	recognized PSPO II Certification as an indication of their advanced knowledge and abilities pertaining to **Scrum** and the role of the Scrum Product Owner. # Anyone a
4	scrum.org	A	B	C	indication of their advanced knowledge and abilities pertaining to Scrum and the role of the **Scrum** Product Owner. # Anyone attempting the PSPO II should have in-c
5	scrum.org	A	B	C	of the Scrum Product Owner. # Anyone attempting the PSPO II should have in-depth **Scrum** and Product Owner experience and have taken the- Professional Scrum F
6	scrum.org	A	B	C	PSPO II should have in-depth Scrum and Product Owner experience and have taken the- Professional **Scrum** Product Owner course- prior to taking this assessment. I
7	scrum.org	A	B	C	- Prepare for the Assessment # The PSPO- assessments are- grounded in the- Professional **Scrum** Product Owner- subject areas. The assessment is exhaustive and ri
8	scrum.org	A	B	C	rigorous. Many questions ask you- to think about or interpret the meaning from the- **Scrum** Guide, - apply content from the PSPO- subject areas, and in some cases
9	scrum.org	A	B	C	additional information to help you prepare for the PSPO- Assessment and ways to learn about **Scrum**. - Certification # If you pass the PSPO II assessment you will rec
10	scrum.org	A	B	C	. In addition, your name will be listed on Scrum.org. - # Unlike other **Scrum** certifications that require only class attendance, Scrum.org certification requires a minimu
11	scrum.org	A	B	C	, and they are very quickly losing respect for the PO. # As a **Scrum** Master, I'm struggling to rein him in. I've mentioned their tendency
12	scrum.org	A	B	C	' Technical Product Owner' which might be a role that can be incorporated in **SCRUM** alongside the Business Product Owner. Having technical AND business knowled
13	scrum.org	A	B	C	then it's time to find out what his agenda really is... # In **Scrum** PO ought to do a mental trade-off: less predictable, but release quality outcomes
14	scrum.org	A	B	C	not complex (it might be complicated, though), therefore benefits coming from **Scrum** implementation are limited (is PO able to formulate a Sprint Goal?) -
15	scrum.org	A	B	C	their job properly. # Try focusing more on the actual structure and rigor of **Scrum** Events. For example: - a Scrum Master should ensure that only the Development

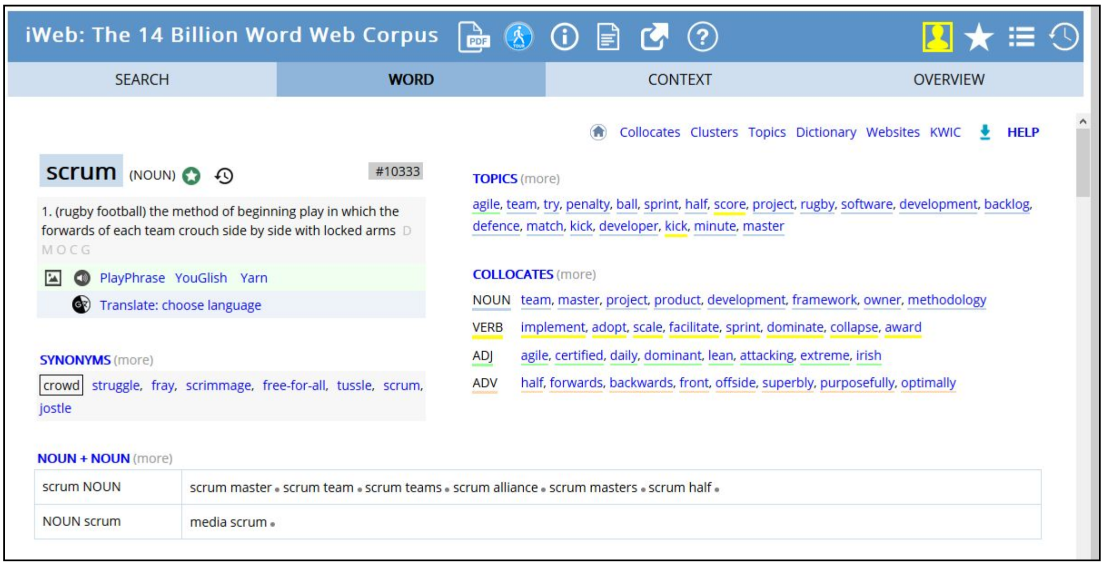
You can, however, gain an excellent overview on the main page of the iWeb corpus with some main clusters and collocates.



iWeb: The 14 Billion Word Web Corpus

COLLOCATES SCRUM NOUN Advanced options

+ NOUN		NEW WORD	?	+ ADJ		NEW WORD	?	+ VERB		NEW WORD	?	+ ADV		NEW WORD	?
5332	4.40	team		3191	9.53	agile		316	3.23	implement		67	4.09	half	
4588	6.53	master		1050	6.40	certified		217	3.34	adopt		29	3.58	forwards	
1640	3.30	project		995	4.55	daily		187	4.76	scale		26	2.51	backwards	
1448	2.50	product		184	4.81	dominant		165	3.67	facilitate		16	2.54	front	
1021	3.04	development		155	4.74	lean		165	6.49	sprint		12	6.10	offside	
923	3.82	owner		140	6.80	attacking		153	3.89	dominate		5	2.71	superbly	
923	5.89	framework		134	2.91	extreme		124	4.71	collapse		4	2.52	purposefully	
889	7.18	methodology		122	2.64	Irish		118	2.68	award		4	2.59	optimally	
877	4.10	meeting		110	4.21	resulting		110	2.92	opt		4	3.04	comprehensively	
848	3.24	role		91	8.56	uncontested		103	3.76	certify		4	3.05	deceptively	
770	6.16	alliance		84	7.27	iterative		102	3.72	lean		3	2.58	interchangeably	
768	5.50	penalty		72	6.03	ensuing		96	3.01	coach		3	2.68	hotly	
758	4.76	half		72	8.97	kanban		87	3.02	practice		3	2.72	inexplicably	
666	3.67	guide		71	2.69	defensive		68	3.12	master		3	4.15	uncharacteristically	
656	2.73	media		69	5.78	halfway		61	4.54	concede		3	6.47	diversely	
547	7.01	sprint		59	5.64	retrospective		56	2.65	reset		2	2.67	ruthlessly	
539	3.80	coach		58	4.81	empirical		50	2.69	collaborate		2	2.86	tactically	
402	2.97	ball		53	4.30	Welsh		35	4.50	ensue		2	3.09	headfirst	



iWeb: The 14 Billion Word Web Corpus

scrum (NOUN) #10333

1. (rugby football) the method of beginning play in which the forwards of each team crouch side by side with locked arms D

M O C G

PlayPhrase YouGlish Yarn

Translate: choose language

SYNONYMS (more)

crowd struggle, fray, scrimmage, free-for-all, tussle, scrum, jostle

TOPICS (more)

agile, team, try, penalty, ball, sprint, half, score, project, rugby, software, development, backlog, defence, match, kick, developer, kick, minute, master

COLLOCATES (more)

NOUN team, master, project, product, development, framework, owner, methodology

VERB implement, adopt, scale, facilitate, sprint, dominate, collapse, award

ADJ agile, certified, daily, dominant, lean, attacking, extreme, irish

ADV half, forwards, backwards, front, offside, superbly, purposefully, optimally

NOUN + NOUN (more)

scrum NOUN	scrum master • scrum team • scrum teams • scrum alliance • scrum masters • scrum half •
NOUN scrum	media scrum •

Analysing corpora for TBLT

Before you start analysing the corpus, you need to bear in mind the task for which you are searching for related discourse. In this example, let's take the corpus we made using BootCaT and think of a task related to English for nutrition students, *Give general advice regarding diet.*

First it would be useful to select some words to search in the collocates and clusters tools in AntConc or in SketchEngine. These words can be based upon our own intuitions regarding the keywords, e.g. diet, eat, healthy, you* (equals you/your). Among other items were:

for a healthy

of a healthy

(help) maintain a healthy

as part of a healthy

healthy diet

healthy eating

healthy fats

healthy weight

heart

choices

living

maintaining

plans

keeps

(may/can/to) help you

good for you

boost your

increase your

you lose weight

your metabolism

your diet

your body

you can

you to

you should

fewer

smaller

foodists

choosing

regularly

what you eat

foods to eat

foods you eat

that people who eat

feel free to eat

the foods you eat

eat fewer calories

eat plenty of

We then can look at the words and patterns that are found with our search terms. We then have more to look at and can search our corpus concordances for these and they will give use some ideas of written discourse which we shall have to evaluate as to whether it is appropriate for spoken output in our prototypical task.

What comes back to add to the above is:

Eat plenty of fruits and vegetables

Eat plenty of fruit, vegetables and wholegrains

Eat plenty of soy and bean products

As part of a healthy diet

Help you maintain

Maintain a healthy weight

```
Maintain muscle

The (comparative adjective) food you eat, the (comparative
adjective)

To boost your metabolism

Foods in your diet

People eat fewer calories (preposition)

You can also/easily/get
```

We now have a large amount of authentic language to help create a prototype task featuring these main patterns. The task could look something like the below, although bear in mind we would need to take other factors into consideration apart from the key vocabulary and collocations, i.e. the modality of the task (spoken or written), the audience, and the typical structure (e.g. turns, moves etc.). See the Session 6 presentation for more on this.

Prototype Task: *Give general advice regarding diet.*

As part of a healthy diet, you should eat less fewer salty foods and drink less caffeine. The more salt and caffeine you consume, the faster your heart beats and in our current environment, a lot of people have racing hearts. It's also important to eat plenty of fruit, vegetables and wholegrains to maintain energy throughout the day while also reducing the amount of heavier carbohydrates you eat, such as bread, rice, pasta and potatoes. The more vegetables you eat, the more that these count toward your carbohydrate intake. This will help you lose weight if necessary, while also maintaining enough calories to fuel you for the day. You shouldn't cut out fats and heavy carbohydrates completely: feel free to eat these in moderation. The important point is to reduce the foods that are unhealthy when eaten too much and to increase foods that will boost your metabolism and maintain your health.