### Applications of corpora and Resources for ESP teaching

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### Applications of corpora in ESP teaching and learning

### Some examples:

- ➤ The production of **DICTIONARIES & GRAMMARS** (reference books for language learners & translators)
- ➤ The design of **SYLLABI & MATERIALS** for language teaching/testing (for the development of short ESP & EAP courses)
- > The use of corpora in **TRANSLATION**

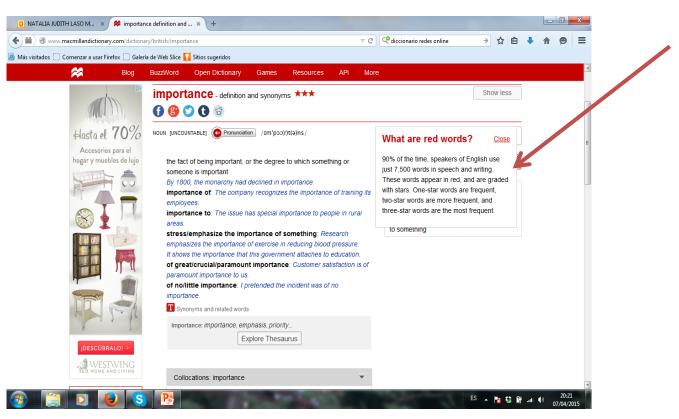
## Applications of corpora in ESP teaching and learning: Dictionary work

The areas in which the use of corpora has changed dictionaries & other grammar reference books can be summarised as follows:

- > Frequency of use
- Collocational & phraseological information
- **≻**Authenticity
- Lexis in grammar (lexicogrammatical approach; pattern grammar)

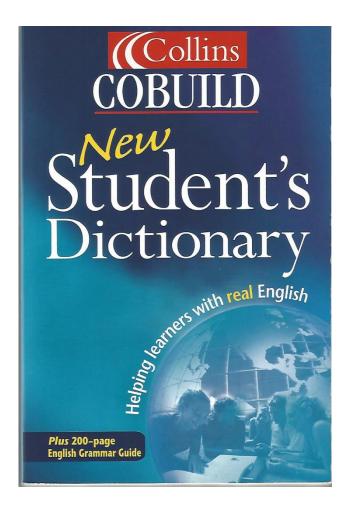
# Applications of corpora in ESP teaching and learning: Dictionary work Frequency of use

The inclusion of information about relative frequencies



## Applications of corpora in ESP teaching and learning: Dictionary work

Frequency of use



Over 3,000 of the most frequent English words in the dictionary are clearly labelled with a star . These have been identified by using the information on frequency provided by The Bank of English. There are also a number of usage notes throughout the text which supplement the information already provided in the dictionary entries. In many cases, these help to clarify the differences that exist between some items.

At the beginning of the book there is a guide to Using your Dictionary: this lists all the important features in the dictionary, and provides exercises to help the user become more proficient in dictionary use. We have also included reference pages which give essential phrases using time, date and numbers, information on punctuation symbols, and a full explanation of all grammatical labels. At the end of the dictionary text there are over 20 pages of illustrations providing essential vocabulary for a wide range of useful topics.

important/m¹pɔ:tənt/. 1 ADJ Something that is important is very significant, valuable, or necessary. Her sons are the most important thing in her life. ◆ importantlyADV I was hungry, and, more importantly, my children were hungry. ◆ importanceN-UNCOUNT Safety is of paramount importance. 2 ADJ An important person has influence or power. ...a very important criminal lawyer. ◆ importanceN-UNCOUNT Penn photographed just about everyone of importance in the arts.

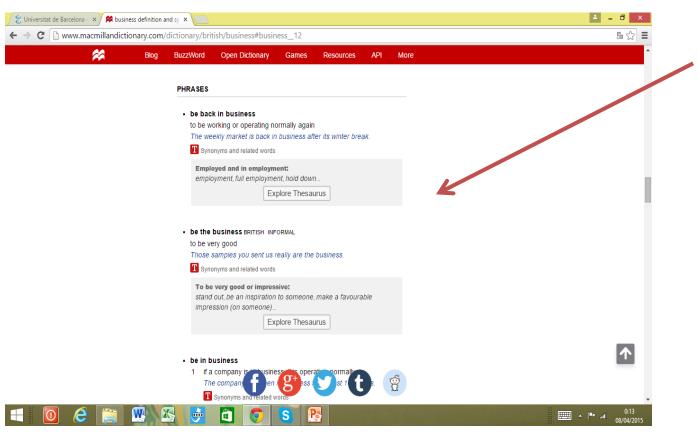
USAGE You do not use important to say that an amount or quantity is very large. You do not talk, for example, about 'an important sum of money'. Instead, you use words such as large, considerable, or substantial. ...a large sum of money. ...a man with considerable influence...

Britain's armed forces face substantial cuts.

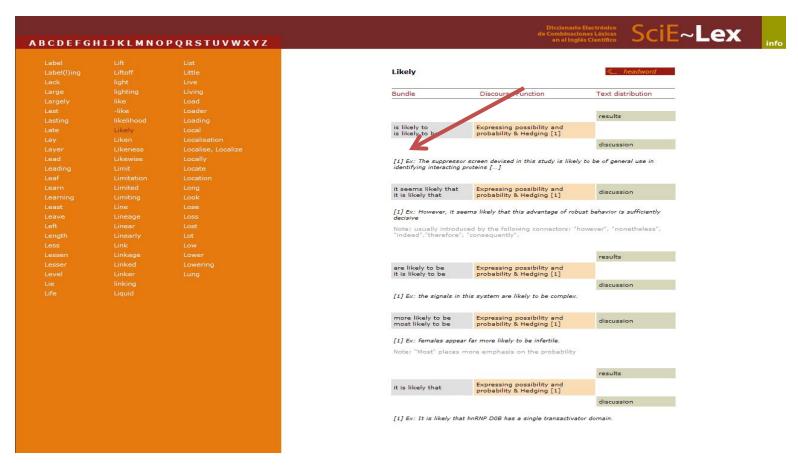
# Applications of corpora in ESP teaching and learning: Dictionary work Collocational & phraseological information

"New" dictionaries tend to:

Define a phrase rather than an isolated lemma

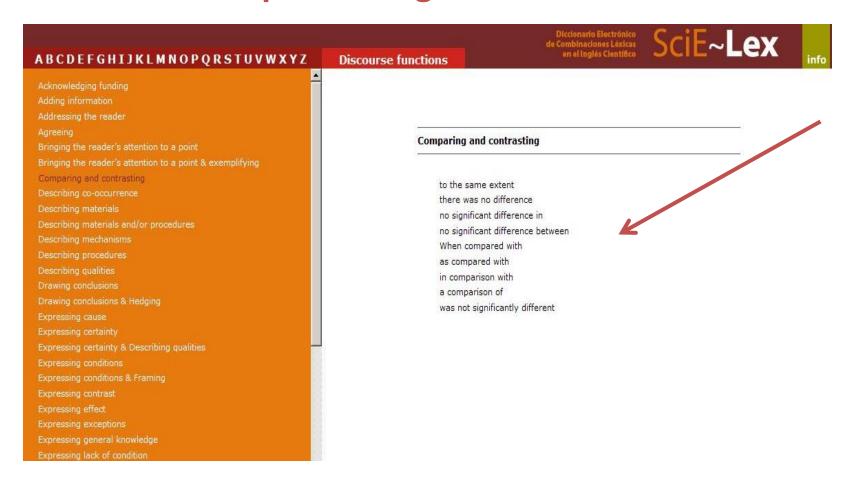


# Applications of corpora in ESP teaching and learning: Dictionary work Collocational & phraseological information



## Applications of corpora in ESP teaching and learning: Dictionary work

### **Collocational & phraseological information**

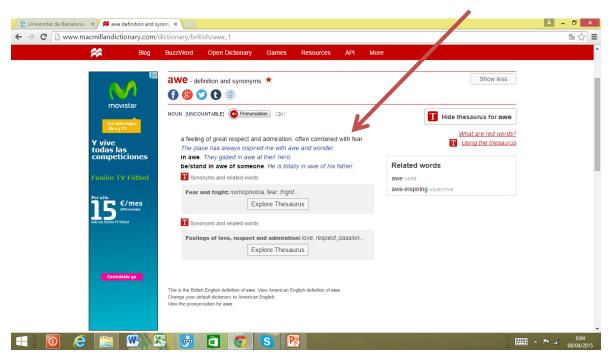


## Applications of corpora in ESP teaching and learning: Dictionary work

### **Collocational & phraseological information**

"New" dictionaries tend to:

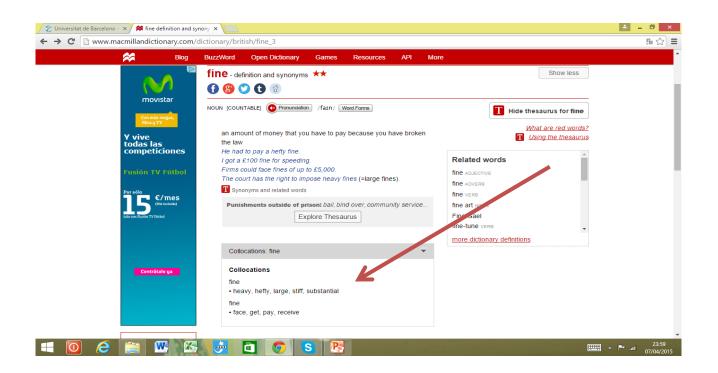
Introduce further collocational information into the definition (e.g. "often combined with fear")



# Applications of corpora in ESP teaching and learning: Dictionary work Collocational & phraseological information

"New" dictionaries tend to:

Use examples to introduce more information about collocations



## Applications of corpora in ESP teaching and learning: Grammar books

Lexis in grammar (lexicogrammatical approach; pattern grammar)

A Student's Introduction to English Grammar (Huddleston & Pullum 2005)

### Past tense

The term 'past tense' refers to a grammatical category associated with verbs: *likes* is a present tense form and *liked* is a past tense form. The usual definition found in grammar books and dictionaries says simply that the past tense expresses or indicates a time that is in the past. But things are nothing like as straightforward as that. The relation between the GRAMMATICAL category of past tense and the SEMANTIC property of making reference to past time is much more subtle. Let's look at the following examples (the verbs we need to compare are underlined):

### [4] DEFINITION WORKS

- i a. The course started last week.
- ii a. If he said that, he was wrong.
- iii a. I offended the Smiths.

### **DEFINITION FAILS**

- b. I thought the course started next week.
- b. If he said that, she wouldn't believe him.
- b. I regret offending the Smiths.

The usual definition works for the [a] examples, but it completely fails for the [b] ones.

• In [i] the past tense *started* in the [a] case does locate the starting in past time, but in [b] the same past tense form indicates a (possible) starting time in the future. So not every past tense involves a past time reference.

<sup>&</sup>lt;sup>5</sup> The decimal point of un and  $\cdot ed$  is used to mark an element smaller than a full word.

## Applications of corpora in ESP teaching and learning: Grammar books

Lexis in grammar (lexicogrammatical approach)

Pattern Grammar (Hunston & Francis 2000)

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PATTERN GRAMMAR

### 1.4.4 Units of meaning

The idiom principle raises issues concerning units of language description. When discussing the association between sense and structure, Sinclair (1987:110) comments that, in particular with relation to recurring phraseologies associated with common words, we find "a distribution of meaning across a number of words". This phenomenon is particularly associated with what Sinclair (1991: 113) calls "a progressive delexicalization". A simple example is the phrase have a bath, where the frequent verb have has lost much of its meaning, and where the meaning is spread across the whole phrase rather than being restricted to one word or another.

A more complex example discussed by Sinclair (1994) is based on the twoword combination *naked eye*. Below are nearly 30 randomly-selected lines from the 1997 Bank of English corpus:

```
ouble Cluster. Easily visible to the maked eye, these two clusters lie more ther and are actually visible to the maked eye. It should be pointed out mear and missing one or two with the maked eye is possible but the computer
its effects cannot be seen by the naked eye. For a better understandi the base you can't see it with the naked eye but you know it's there anything you can see with your naked eye, probably has adequate amino iewers that Lammtarra would win. The naked eye instantly caught the sudden
arc, 30 000 times as accurate as the naked eye. The less accurate Tycho till 15 to 20 times fainter than the naked eye can see. During August,
         in the night sky visible to the naked eye in his book Sky Phenomena: A
       the star might be visible to the naked eye. The star's true colour is
       and it is clearly visible to the naked eye. The next problem at the
  So it's kind of a fight because the naked eye and the viewer sees things
as a transformation invisible to the naked eye, and certainly unbeknown to
  it. The worms cannot be seen by the naked eye. Horses grazing the paddock
   the first supernova visible to the naked eye since 1604 erupted in the La Double and Multiple Stars To the naked eye, stars appear as solitary,
       at the top, as it appears to the naked eye and in binoculars. Through a
  at times it is just visible to the naked eye. Vesta is the third-largest
its twisted roots visible to the naked eye as they snaked right down th
they were specks too small for the naked eye. The mass that was the audie
      so happily and who looked to the naked eye as right as rain, be about t
hotoaging changes are visible to the maked eye. And even more disturbing on a level that is invisible to the maked eye. Shields. Your circle might interactions imperceptible to the maked eye. Among these interpersonal
  passage among them, visible to the naked eye. Time to settle down for a
the new Pele's point all the naked eye could see was a sea of
accurate form of scoring than by the naked eye. It will never be possible
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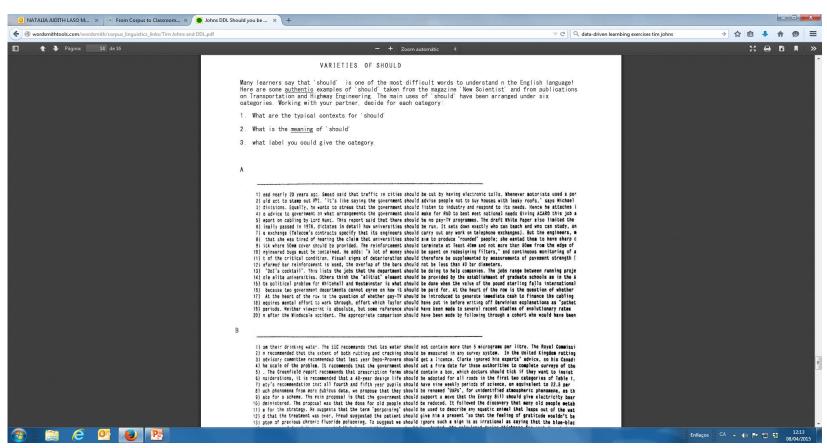
As Sinclair points out, and as these lines illustrate, *naked eye* typically appears in a context that is restricted yet not fixed. Typically, *naked eye* occurs at the end of a clause and is preceded by *the*. Furthermore, *the naked eye* is preceded by *to*, or, less frequently, *with*. The prepositional phrase *to/with the naked eye* follows a range of words related to sight, most frequently *visible* or a form of the verb see. Prior to that is an indication of something that might be too small to be seen. About half the instances of this typical usage are negative (as against a general

- > Data-driven learning (Johns 1997):
  - students as "language detectives"
  - raising sts' motivation: motivated to remember what they have found out
  - ➤ FOCUS: presenting learners with evidence from authentic examples and asking them to make hypotheses and draw conclusions (using context to deduce meaning)

### > Teachers' reservations:

- How to integrate DDL into the class plan?
- What language points are covered with corpus-based materials?

> Some examples (Johns 1997):



 Some examples (Anne O'Keeffe, Michael McCarthy & Ronald Carter. 2007. From corpus to classroom: language use and language teaching. Cambridge: CUP)

Figure 7: Extract from Exploring Grammar in Context (Carter, Hughes and McCarthy 2000: 99)

### 3 Choosing between different passives

- a) In the following extracts from recorded conversations both get-passives and passives formed with have + object + past participle are found.
- What differences do you notice in the way the two passive constructions are used?
- [A married couple, Jill and Matt, are discussing with a friend, Carol, the hurricane-like storms which hit Britain in 1987.]

Jill: Remember those gales when our roof was blown off?

Matt: Yes, by that massive gust.

iill: Then the pipes got frozen up and we had three plumbers come in to repair it all.

Carol: And they never even put out weather warnings.

As exemplified in Exploring Grammar in Context, the aim is to provide a text in which particular forms are illustrated, tasks which actively involve the learner in noticing features through interaction and then to invite the learner to induce the patterns of usage. It offers an approach that is essentially inductive and complements the more deductive approaches that are generally (though not exclusively) better suited to teaching and learning more deterministic structures. It also leads into further activities in which learners then extend the induction by producing language in a series of self-study exercises, which can then be checked and monitored by learners themselves. Over the past two decades, research into the value of such consciousness-raising, especially in relation to the teaching and learning of grammar, has been growing steadily (Rutherford and Sharwood-Smith 1988; Fotos and Ellis 1991; Odlin 1994; Ellis 1998; Hewings and Hewings 2005).

Challenges to the use of corpora in language teaching/testing:

- ➤ Teachers & materials writers should not accept corpus evidence uncritically. Frequency should not be the only factor in deciding what to teach. **SALIENCE** must be taken into account, too.
- Some authors point out that most corpora tend to comprise the language of NS only, BUT in most conversational exchanges English is used as a **lingua franca** by NNS.

- ➤ To this respect, evidence of learner corpora provides very valuable information about learners' production (e.g., frequent errors, students' level of competence, language contact, L1 influence, etc.), which may be useful to design class materials and enrich teaching methodologies
- ➤ LEARNER CORPORA can give information about the difference among learners and between learners and native (or expert) speakers.

Much work in this area has been conducted by Sylviane Granger, Magali Paquot et. al from the Université Catholique de Louvain (Centre for English Corpus Linguistics):

- The International Corpus of Learner English
- ➤ The Louvain International Database of SpokenEnglishInterlanguage (LINDSEI)
- ➤ The Longitudinal Database of LearnerEnglish (LONGDALE)
- ➤ The Varieties of English for Specific Purposes dAtabase (VESPA)
- > <u>Learnercorporaaroundtheworld</u>

### Applications of corpora in ESP teaching and learning: translation

- Increasingly important application of corpora
- What software can be developed that will enable a translator to exploit corpora as an aid in their everyday business of translation? Some examples:
- 1. PARACONC (http://www.paraconc.com/; a multilingual concordancerdeveloped by Michael Barlow. It permits a wide range of investigations of translated texts, from the analysis of bilingual terminology and phraseology to the study of alternative translations of a single text.
- 2. MULT-ED (MULTilingual EDitorial corpus) multilingual comparable corpus of newspaper editorials written in English, Dutch, French and Swedish (<a href="https://www.uclouvain.be/en-cecl-multed.html">https://www.uclouvain.be/en-cecl-multed.html</a>)

### Resources for ESP teaching

- WordSmith Tools: (http://www.lexically.net/wordsmith/); lexical analysis software that allows the user to observe how words behave in texts (tools available: Concord, KeyWord, WordList, Cluster, etc.)
- Concordance: (http://www.concordancesoftware.co.uk/); software for text analysis that allows users to count words, make wordlists, word frequency lists, and indexes.
- AntConc: (http://www.laurenceanthony.net/software/antconc/); a freeware corpus analysis toolkit for concordancing and text analysis, developed by Dr. Laurence Anthony (AntLab; Waseda University)

### Resources for ESP teaching

- WordSketchEngine (http://www.sketchengine.co.uk/); it is a Corpus Query System that lets you see a concordance for any word, phrase or grammatical construction in a corpus (provided by the tool or uploaded by the user) Its unique feature are word sketches (i.e., corpus-derived summaries of a word's grammatical and collocational behaviour)
- http://www-nlp.stanford.edu/links/statnlp.htmlp.htmlhttp://www-nlp.stanford.edu/links/statnlp.html; this website offers a wide range of NLP resources, such as machine translation, PoS Taggers, parsers, semantic parsers, concordances, etc.
- http://bwananet.iula.upf.edu/ (BwanaNet is an interface developed at the IULA that allows to query the Technical Corpus of the *Institut* via Internet.)