Vocabulary in ESP (Analysis and Teaching)

1) Introduction

The analysis of the micro-structure of ESP genres revealed that the latter are mainly composed of (**sub-) technical** vocabulary that ESP teachers need to consider. Such findings derive from **Corpus linguistics,** which uses a collection of written texts or transcriptions of oral texts in an electronic form (i.e., corpus), to analyse recurrent linguistic items within the corpus itself.

2) Vocabulary Categories (Corpus Linguistics Findings)

Corpus linguistics findings classify Vocabulary Categories into General Vocabulary which represents the most frequent words of English. They provide 80% coverage of most texts (Nation, 2001, cited in Dudley-Evans and St. John). e.g., arrive, discuss, follower, impossible, leader, message, repeat, story. From another part, the 2000 most frequent words of English tend to have multiple meaning senses. Some of which are sub-technical or technical in nature (Schmitt, 2013)

3) Sub-technical Vocabulary

'Technicalness' is a functional aspect of a word, i. e., words can only usefully be categorised in light of the context of use. **Sub-technical** and **technical** vocabulary may be of 'high frequency' in a particular domain, but of 'low frequency' in a general corpus. Ward (2009: 173) maintains that "Disciplines are lexically idiosyncratic"

4) **Types of sub-technical vocabulary** (from Baker's (1988: 92) Categories, cited in Dudley-Evans and St. John (1998: 82)

1) General vocabulary with high frequency in a specific field

e,g., **Academic** : factor, method, function, cycle-evaluative adjectives: relevant, important, interesting;

Tourism: accept, agree, confirm

Collocations: (Collocations are generally sorted out when two or more words are forming a word cluster in the sentence),e.g., make a booking, launch a campaign

2) General English words with specific meanings in certain disciplines, e.g.,

Computer science: bug; **Physics**: acceleration, force, energy; **Mechanics and engineering**: stress, strain; **Law**: article, appeal, party

3) Chung and Nation's (2004) Classification of Technical Words

1. Words such as function words that have no particular relationship with a field of study amount, common, early.
2. Words that have a meaning that is minimally related to a field of study: superior, supports, protects.
3. Words that have a meaning closely related to the field of study, but which also occur in general language: **abdomen, cavity, muscles.**
4. Words that have a meaning specific to a field and are not likely to be known in general language: **thorax, periosteum, viscera** (covers only 5% of the texts (Schmitt, 2013))

4) Discipline Specific Behaviour of Sub-technical Words

Hyland and Tse, (2007) maintain that different meanings will be differentially preferred across disciplines, that is, their collocational patterning differs from discipline to discipline and affects word meaning.

E.g., marketing **strategy**, learning **strategy**, coping **strategy** -

blueberry cell **culture**, **cultures** were grown -

- **Disciplinary differences for the use of analyze**

Hyland and Tse (2007) found out that definitions of **analyze** differ from Hard sciences (**methods of determining the constituent parts or composition of a substance)** to Social sciences (**consider something carefully**). However, there are disciplinary similarities for the use of 'analyze' common to all academic disciplines. This **Core meaning** is 'to examine data using specific methods or tools in order to make sense of it'.

5) Relevance for ESP Vocabulary Teaching (Schmitt, 2013)

- Teach the most frequent words
- Teach the sub-technical vocabulary, if students are going on to academic study

- Teach the technical words of a subject after the first two sets of words have been learned
- Or learners can/will learn technical words once they begin their subject studies or enter their field of work

6) The Teaching Strategies of Vocabulary in ESP

Dudley-Evans and St. Johns (1998) put forth that ESP teachers are more concerned with teaching sub-technical vocabulary, whereas technical vocabulary is generally dealt with in the subject class, with the subject teacher. They proposed the ***following strategies***:

a) The use of word meaning (Nattinger, 1988):

Situational sets: words grouped according to topic, e.g., library: book, shelf, borrow, loan period.

Semantic sets: synonyms (dear=expensive), antonyms (high quality≠ low quality)

Metaphors: e.g., argument is war: he defended his claim; he attacked the idea that…

Inflation is a rideless horse (inflation is out of control; run-away inflation; galloping inflation)

b) Collocations: two lexical items or words which co-occur in general or specific situations. E.g, strong or powerful with argument ; insight with offer,

This inquiry will present its findings later…

The study offers an insight into….

c) Lexical phrases: instead of isolated words, students more efficiently store words as lexical chunks or phrases ready for use in certain situations,

E.g., the table suggests that…;As shown in the diagram……., Sales fell sharply….

References

CHUNG, T.M. and NATION, P. (2004). Identifying technical vocabulary. System 32(2), 251-263.

DUDLEY-EVANS, T., and St JOHN, M.-J. (1998). Developments in English for specific purposes. Cambridge: Cambridge University Press.

HYLAND and TSE (2007). Is there an academic vocabulary ? In TESOL Quarterly

SCHMITT, N (2013). An Introduction to Applied Linguistics. Routledge.

TD TASK

1. Pick out from the specialist texts (whose links are provided below) the different types of vocabulary (general/semi-technical/technical) and their meaning
2. Can you think of any situational, semantic or metaphor sets they belong to?
3. List any collocations that you think are worth pointing out to learners.
4. List any useful lexical phrases.

Anatomy of the cranial nerves (https://teachmeanatomy.info/head/cranial-nerves/summary/

Dillusions and Hallucinations in Schizophrenia (http://psychcentral.com/disorders/schizophrenia/)

"Biology Text" (extract E5.3, page 247 of Dudley-Evans and St John's (1998) book)

Geometry text (https://mathplanet.com)

Acceleration (https://physicsclassroom.com)

((Students can choose other specialist texts from other areas))

Key:

Possible answer from "Biology text"

Semi-technical words: proliferation, growth, occur, experiment, score, counterpart, etc.

Collocations and lexical phrases: other experiments show…, these studies suggest…., proliferation and growth occur…,

Semantic sets: advantages/disadvantages, compare/contrast

Situational sets: numerical data: display**,** pie chart, bar chart, graph, table.