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THE LANGUAGE OF GRAPHS IN BUSINESS ENGLISH. A TERMINOLOGICAL PERSPECTIVE

Introduction

It is widely accepted that English has become the universal communication medium, being the official language of trading relationships, aviation, computing, politics and diplomacy. It has also become the language of science and technology as scientists all over the world publish their papers, articles, books, PhD theses in English to facilitate the worldwide exchange of information. International academic conferences bring together people from different cultures, with various linguistic and socio-cultural backgrounds and thus English is the adopted common language of communication.

ESP students are nowadays increasingly interested in gaining fluency in their conversation as they need to interact with other students or specialists from different countries. The information provided by the Internet is also in English and most universities all over the world choose English for their websites. Students need ESP to grasp certain meanings of the technical vocabulary, to learn how to use the technical and academic vocabulary properly in their scientific papers and to communicate effectively with students and specialists around the world.

English for Specific Purposes

Numerous studies have been devoted to the origin of ESP, whose emergence did not occur overnight. It was traced back to 1960s and its impact was regarded as a revolution in linguistics, explained as a "phenomenon that grew out of a number of converging trends". (Hutchinson, Waters, 1987:6) ESP has been constantly developing over the years, turning into a major force in English language teaching and research.

Back in 1987, Hutchinson & Waters (1987:17) suggested a graphical representation of English Language Teaching (ELT), where ESP is one of its main branches, which focuses on designing courses by taking into account the communicative needs of professional groups of learners and on tailoring those courses in order to meet learners' needs. English for Business and Economics is a distinctive branch of ESP, which has been a rapidly expanding domain.

English for Business and Economics

In the current context of continuing globalisation of markets as well as internationalisation of economy and trade, professionals from institutions and organisations, which can range from large multinational companies to SMEs, are required to master Business English in order to succeed in the international workplace (negotiations, international meetings, conferences, congresses, e-mail, advertising etc.).

In order to be able to master Business English, learners should have access to materials tailored specifically to meet their needs and designed to facilitate learners' linguistic efficiency in this particular domain. Any ESP course design is a complex, dynamic and interactive process. The learning-centred approach promoted by Hutchinson and Waters (1987:75), who emphasized that the effectiveness of the learning process can be enriched by the use of other skills, aiming at maximizing the potential of the learning situation.

English for Business and Economics learners can acquire the vocabulary and grammar they need, not by repeating things in order to remember or learn them as learners may get bored easily, but by using variety and involving all skills. The use of English as a means of communication within the business world has led to an increasing interest in learning Business English grammar and vocabulary (including business idioms, expressions, buzzwords, slang, acronyms, abbreviations, euphemisms, etc.) in order to drive learners' career forward.

The Language of Graphs

In specialist literature, the language of graphs is encompassed in the business and economic discourse, which broadly speaking focuses on the way people communicate in business organizations (meetings, negotiations, correspondence, etc.) and stakeholders analyze business situations (reports, presentations etc.)

The language of graphs does not make use of a considerable proportion of highly specialized terms compared with other terminologies such as shipbuilding or engineering but nonetheless is a very dynamic terminology, which has been rapidly developing over the past years.

Even though a greater emphasis has always been placed on theory, all branches of economics rely on interpreting graphs. Thus while accounting deals mainly with drawing up reports, management relies mainly on case studies, insurance is based on actuarial calculations, marketing is constantly in a never-ending pursuit of finding the best strategy to attract more customers, statistics and finance trust only their

intricate analyses, etc., they all use graphs because these can save time by providing the available data in easy-to-read formats.

There are several types of graphs that are widely-available: line graphs, bar charts, pie charts, area graphs, percentage charts, population charts, dot graphs, bubble graphs, graph matrix, etc. Single line graphs and multiple line graphs are the most common graphs in business and economic discourse as they are used to show trends and changes over time. Bar graphs are used to compare facts or to show segments of information. The bars can be displayed vertically (also called column graphs in Excel), horizontally or in some other combinations (doubled, grouped, stacked, etc.). Pie charts are specialized graphs used in statistics to show relative sizes, proportional data or percentages. The complexity of graphs also varies considerably.

It has been often said that *A picture is worth a thousand words.* This is also true in business and economics. Visual appeal is essential and causes a faster and more powerful reaction, especially when a well-crafted graph is explained well. An efficient graph interpretation informs and/or persuades, helping the audience grasp the situation at a first glance. Due to graphs, large data analysis can be performed, conveying maximum information. In order to make the message clearer and to increase the impact of the graph at the same time, people make use of words that are carefully selected in order to capture and hold the audience's attention. Thus a high proportion of the vocabulary used to interpret graphs is borrowed from other specialized terminologies.

The language of graphs makes use of numerous adjectives (*steep, occasional, enormous, dramatic, sharp, slight, substantial, steady, considerable, gradual, moderate, slow, sudden, swift, marked, noticeable, etc.)* and adverbs that are used more frequently than in other related fields (*enormously, dramatically, sharply, slightly, substantially, steadily, considerably, gradually, moderately, slowly, steeply,* etc.) and of an impressive number of verbs (used with their basic or connotative meaning) from the common language and their corresponding nouns to show trends over time, for example: *to rise, to increase, to go up, to grow, to boom, to fall, to decrease, to drop, to fall off, to decline, to go down, to reach a low point/the lowest point, to hold up, to remain stable, to remain constant, remain steady, to fluctuate,* etc. It also includes general scientific terms which are common in all areas of ESP such as: *figure, diagram, accuracy, result regularity, evolution, proportion, quarter, average, percentage,* etc.; the semi-technical or sub-technical terms (not subject-specific terms that are also used in other specialized languages and which have a whole range of meanings and are frequently used

idiomatically (Pearson, 1998:18) such as: *budget, interest, fluctuations, profit, sales, share,* etc. and common words, which are used in day-to-day conversation but which have acquired a specialized meaning. Certain terms were introduced in the language of graphs with the purpose of capturing the interest of the audience, the transfer of meaning aiming at insuring the maximum impact. With time, these terms have become conventional due to extensive use.

This particular terminological analysis aims to investigate the phenomenon of the semantic change in the language of graphs. Without being exhaustive, we mention that if we focus on the result of the semantic change, two main approaches, which are intrinsically interconnected, can be employed in interpreting the semantic shift between lexical units, i.e. synchronic approach and the diachronic approach. These changes may occur in the connotative meaning of a word (pejoration and amelioration) or in its denotative meaning (extension of meaning or generalization and narrowing of meaning). If we focus on the nature of the semantic change or on the transfer of meaning, than we emphasize the important role of the metaphor based on analogy or on image similarity (Cenac, 2010:138). For instance *to go into a roller coaster* is an idiomatic expression which, in the language of graphs has the meaning of *to fluctuate wildly* due to its figurative meaning.

The language of graphs makes use of numerous words that have two or more different meanings, which vary from one specialized context to another. Words of such type "may have both a 'literal' meaning and one or more 'transferred' meanings, although we cannot determine with precision how many different meanings a given word may have altogether". (Jackson, 2000:70) Thus new meanings have developed by some terms originating in the common language or in other specialized languages, used with their basic or related-figurative meaning:

- *to plummet* (n. plummet) – to fall steeply or suddenly (Longman, 2003:1030), e.*g.* The graph shows *a 37% plummet* in sales due to the diminishing purchasing power.;
- *to plunge (*n. plunge) – to move or be thrown suddenly forwards (Longman, 2003:1030). In the language of graphs, the term denotes a rise as in: The figure shows a *plunge* in the number of employees who opted for voluntary redundancy;
- *to slump* (n. slump), - to go down suddenly and severely in number or strength, e.g. Marks & Spencer has reported a 63.9% *slump* in pre-tax profits to £176.4 million for the year to April 1st, as the UK retailer's high street woes continue. (http://www.newstalk.com),

- *to inch up* – to move slowly and with difficulty (Longman, 2003:667) - the term is informal and is used in the language of graphs to show a slight increase: Grocery prices *inched up* again in July,
- *to jump* (n. jump) – to move suddenly from one point to another, to spring (Longman, 2003:712) – the term is used to denote an upward movement, e.g. The figure shows a *jump* in inflation rate.
- *to* seesaw (n. seesaw) – to move backwards and upwards, up and down (Longman, 2003:1219) –the term is used to show fluctuations, e.g. Stock prices *seesawed* for the better part of the year.

Terms originating in the language of aviation are the following:

- *to nosedive (*n. nosedive) – *(*of an aircraft) to drop suddenly with the nose pointing (almost) straight down (Longman, 2003:928). The term is used with its figurative meaning to denote a sudden drop as in: Our profits *nosedived* 82% in the third quarter.
- *to skyrocket/to rocket* – to shoot up abruptly, like a rocket (http://www.thefreedictionary.com). In the language of graphs the term is used to denote a steep upward movement, e.g. According to the graph, the tax rates *skyrocketed* in 2013.

Terms originating in the language of military:

- *to rally* (n. rally) – (of troops) to regroup or reassemble. The term is used to show that something improves or rises as in: The graph shows that the stock-market *rally* occurred in the first quarter.
- *to surge* (n. surge) - to increase the number of troops deployed in an area. In the language of graphs the term denotes an upward movement, e.g. Our company's shares *surged* 16% in the first quarter as shown in the figure.

Terms originating in the language of biology:

- *to soar* – to fly, especially at a great height, without moving the wings (Longman, 2003:1283). The verb is used to denote a rapid rise: e.g. House prices *soared* by a massive 52% over the last 12 months.

Terms originating in the language of geography:

- *to peak/ to reach a peak* (n. peak) - to reach the maximum level as in: Sales *peaked* in the first quarter.
- *to plateau/to reach a plateau* (n. plateau) – to reach a constant level or to stabilize: Profits *plateaued* in January.

Terms originating in the language of healthcare and medicine:

- *to recover* (n. recovery, also to stage a recovery) – to return to good health or condition. In the language of graphs the verb is used to show some improvement as in: The bar graph shows a huge *recovery* in economy.

- *to deteriorate* – to become worse. The term is used to show a decline, e.g. The trade balance *deteriorated* by € 120m.

From the perspective of terminological polysemy, this specialized terminology is very rich in the use of phrasal verbs, a common type of phraseological units English, whose idiomatic meanings are very difficult to grasp. Several examples of such idiomatic combinations that are used with a figurative meaning in the language of graphs are the following:

- *to dry up* – to remove the moisture from someone or something (http://www.thefreedictionary.com), in the language of graphs, the term is used to denote that something has been used up or exhausted such as financial resources, e.g. This figure shows that orders almost *dried up* in the second quarter.
- *to take off* (n. take-off), whose basic meaning is - to rise into the air at the beginning of a flight (Longman, 2003:1375), and which is used in the language of graphs to denote a significant upward movement, e.g. The graph shows that the sales *took off* just before Christmas.
- *to level off* (n. level-off/level-out), - to bring an aircraft into a horizontal flying position after an ascent or descent (http://www.dictionary.com). In the language of graphs, the term is used to show stabilization after a period of increase/decrease or fluctuations: e.g. The price of shares *leveled off* after a period of wild fluctuations;
- *power up,* term which is commonly used in ICT terminology, meaning - to switch a computer on in the correct way (http://www.macmillandictionary.com), and which in the language of graphs is used with its figurative meaning, i.e. to boost, e.g. This marketing strategy has been successfully used *to power up* sales, as shown in the figure, exceeding our expectations.

As previously shown, the terminology under scrutiny makes use of words that have been drawn from the general language or from the other compartments of language and which have been given new contextual meanings. These polysemantic words have made substantial contributions to the ever-expanding terminology of graphs.

Jackson (2000:70-71) advocates polysemy as an essential condition for language efficiency, "an invaluable factor of economy and flexibility in language", resulting in a highly productive process of vocabulary enrichment. The present paper aimed to give an overview of the language of graphs in point of polysemous terminological terms and our findings revealed that a considerable proportion of the graph-related terminology originated in other compartments of language.

Conclusions:

Graphs are very powerful tools for analyzing raw data and for presenting information as they simplify and synthesize the most important aspects in easy-to-remember formats. Graph interpretation does not necessarily limit to figures and facts. It also takes into account what kind of data will be presented, in what format and which information is the most relevant so that the message is conveyed in the most efficient way. A strong focus is always placed on persuading the audience, therefore selecting the appropriate vocabulary is of the utmost importance.

Non-native students of English need to be taught how to interpret graphs and charts in order to develop their abilities required for effective communication in occupational settings on the one hand, and to increase their chances to obtain a certificate of English proficiency level on the other. In order to do so, they need a good understanding of the mechanics of graphs and to constantly improve their vocabulary in order to interpret the information correctly. Therefore, teachers should be innovative enough to provide updated information as well as teaching techniques and efficient evaluating methods. As a consequence, ESP teachers have a more difficult and challenging task as their students are familiar with or even advanced in English (basic grammar rules and vocabulary) and they need to focus on acquiring the specialized vocabulary and specific grammatical features.

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Abstract: *Language never ceases to change, develop and expand and new words are constantly coined or invented in order to keep up with the pace of science and technology. Theoretically each specialized subject included in the English for professional purposes such as business, engineering, medicine, shipbuilding, etc. has its own terminology. However, there is no clear-cut delimitation of the specialized vocabulary characterizing each compartment of language, consequently terminologies overlap to a certain extent and terms migrate from one specialized language to another or acquire new meanings (Romanian linguists speak of migration of terms (Bidu-Vrânceanu, 2002, Cenac, 2010) whereas English linguists speak of transfer of meaning (Jackson, 2000)). When referring to a certain type of English such as Business English, the most widely accepted variants are language for special/specific purposes (LSP), specialized language, specialized terminology or variety of English (Basturkmen, 2008:15). Broadly speaking, the vocabulary of each specialized language is made up of a considerable proportion of words which are common in everyday speech; general scientific terms which are common in all areas of ESP; specialized terms or semi-technical terms, highly specialized technical terms specific for each branch of ESP and common words which are used in day-to-day conversation but which have acquired a new meaning. Due to the semantic process certain words from the general vocabulary have undergone significant changes in their meanings, resulting in the emergence of new specialized terms. The present study aims at investigating the transfer of meaning from words belonging to the common language or to other specialized languages to the language of graphs.*
Keywords: *English for Business and Economics, the language of graphs, specialized terms.*