

MODULE: ILS LEVEL: 3nd YEAR TEACHER: LOUCIF

SCIENTIFIC ENGLISH VS LITERATURE

The language of science differs from the one used in literary works in many ways. We will try to explore the main features that characterize the scientific English and make it different from the other languages used in any other discipline, especially literature.

1. Objectivity Vs Subjectivity

The scientific language is accurate, precise and detached from individual impulse. It aims to inform about an important issue and what particular approach is taken up to investigate that issue. It is an objective interpretation of facts and findings. It contains such components and findings that need external and experimental evidence to consolidate their validity. On the contrary, literary language is subjective interpretation of life. It represents the artist's inner self. It does not, at all, need external components and evidence to put forth artists' spontaneous overflow of powerful feeling.

2. Scientific Truth Vs Emotions

In scientific text subject-matter takes priority over the style of the linguistic medium (Close, R. 1965). Scientists focus more on the accuracy of theme and the findings rather than on the style of presentation. Hence scientific language is devoid of any sensuous pleasure whereas literary use of language is full of human impulse and human pleasure. Scientific words differ from ordinary and literary words since they do not accumulate emotional associations and

implications. The pursuit of universal generalization in scientific texts enables the author to signal credibility, reliability, objectivity and ultimately authority to their readers and the research community. (Marin, Arrese. J. I, 2002).

3. Impersonal Vs Personal style

The language of science is characterized by impersonal style (Ding, D.2002). By impersonalizing, the author implies that there could have been anyone, or any research could have been carried out, the research still would have come to the same conclusion. He is of the view that impersonalization is realized by the frequent use of passive voice. Passive Voice is one of the most frequent, well known and well documented strategies in scientific text. (Swales, 1990), it is frequently used in scientific writing to create an impersonal scientific text because the important idea is not who did something but what was done. The passive verb will be a better choice to describe experimental procedures in Method Section of scientific research articles. Widdowson (1974) says that scientific language avoids the first and second person thus detaching a message from its sender and receiver.

4. Denotation Vs Connotation

Denotation is used a lot in scientific English since it refers to the strict dictionary meaning of the word. On the other hand, Connotation refers to the emotional and imaginative associations (positive and negative) surrounding a word.

The word *snake* **denotes** the *reptile* (Animal), while the **connotations** of the same word can include *evil* or *danger*.

5. Precision Vs Figurative Language

Precision is very important in communicating scientific findings. "All scientists must learn to use the English language with precision. (Day, R.A. & Sakaduski, N. D, 2011). "Scientific writing is the transmission of clear signal to a recipient. Scientific writing needs no ornamentation. Flowery literary embellishment –metaphor, similes, and idiomatic expression are very likely to cause confusion and should seldom be used in research paper". (Robert, A, Day and Barbara Gastel, 2011). Scientific text underlines the information without bothering about features that are characteristic of poetic texts, such as rhyme, connotative and symbolic meanings. Literary writers, on the other hand, use a lot of ornaments and figurative language.

6. Use of Scientific Terminology

Scientific writing uses specific terminology for very specific disciplines that very few people might understand. A reader that is not knowledgeable about the subject should be using a dictionary or reference to look up the terms that they do not understand. According to Crystal (1997), English for Science(s) involves a special vocabulary, which often means a large set of words of Latin or Greek origin, but the development of sciences and new discoveries impose the continuous renewal or enrichment of this scientific vocabulary. Trimble (1985) has termed the process by common words are charged either with new meanings or they are employed to represent newly established entities: "technicalizing processes". This device is evolved to interpret and to reclassify the word in a different way from its normal practice in the natural spoken language. The common words when they are compounded and reformulated in the scientific domain, their meanings undergo complete change.

Conceive: Common Meaning: to understand, In **Medical Discourse**: to become pregnant.

7. Use of Nominalization, Abbreviations, Illustrations, Numbers and Symbols.

Other typical features of scientific English are: the *nominalization* which allows the scientists to pack complex information into a compact unit. Also, various types of *abbreviations* and *acronyms* are used, which can save time, reduce space, but also facilitate the reading and understanding of a text.

Charts, tables, figures, graphs, pictures... are different ways to *illustrate* a scientific paper, and they play an important role in science because it is said that visual information is generally supposed to be an effective way of communicating data and the transparency of visual information seems to be taken more or less for granted (Pintó & Ametller, 2002).

References

- Close, R. (1965). English We Use for Science. London, Longman.
- Crystal, D.1997.*The Cambridge Encyclopedia of Language*.Cambridge: Cambridge University Press.
- Ding, D. (2002). The passive voice and the social values in science. Journal of Technical Writing and Communication, 32, 137-154.
 [Online] Available:

http://baywood.metapress.com/app/home/contribution.asp?referrer=parent &backto=issue,4,6;journal38,162;linkingpublicationresults,1:300326,1

- Day, R. A., Sakaduski. N. D. (2011). Scientific English: A Guide for Scientists and Other Professionals. (3rd ed) Greenwood. p.4. [Online] Available: <u>http://www.abc-clio.com/product.aspx?id=2147491826</u>
- Marin Arrese, J. I. (2002). Mystification of agency in passive, impersonal and spontaneous situation types. In Conceptualization of Events in Newspaper Discourse. [Online] Available:

http://www.ucm.es/info/fing1/psl/Research/Marin%20Arrese%20JI%20e d.pdf

- Pintó, R., & Ametller, J. (2002). Students' difficulties in reading images. International Journal of Science Education, 24, 333-341.
- Robert A Day, and Barbara Gastel. (2011). How to Write and Publish a Scientific Paper. (7th ed.) Santa Barbara, Calif: Greenwood. p.3. [Online] Available:

http://www.worldcat.org/title/how-to-write-and-publish-a-scientificpaper/oclc/696099330

- Swales. (1990). Genre analysis: English in academic and research settings. *English for Specific Purposes*, 20, 439-458.
- Trimble, L. (1985). English for Science and Technology. *A Discourse Approach*. London, Cambridge University.
- Widdowson H. G. (1974). Literary and scientific uses of English. *English Language Teaching Journal*, 28(3), 282-292. <u>http://dx.doi.org/10.1016/0889-4906(91)90015-0</u>