Université Badji Mokhtar Annaba

Filières Toutes les filières de l'Ecologie + Toutes les filières de la Biologie Animale

Faculté des Sciences **Intitulé du Module : Anglais Scientifique**

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CHARACTERISTICS OF SCIENTIFIC TEXTS

1-Definition:

Scientific English uses special language; there are certain areas of language which are used more in scientific texts than in non-scientific one. Strevens in a survey article (1976) admits that much of scientific discourse contains a lot of words, roots and affixes from Greek and Latin origin in addition to the use of symbols and numbers. He believes that scientific discourse uses long sentences containing many clauses in complex degrees of dependency with much embedding. There is also the use of nominal groups containing a series of adjectives and the use of passives which have the effect of putting the main and important ideas in initial position. Furthermore, there is a frequent use of logico-grammatical items such as: "if, unless, although, whenever, consequently, therefore" with the use of a high proportion of items of specialized vocabulary.

2-Characteristics of language of science:

- **The use of the present tense.** The present tense is always used in Biology to state facts or to talk about general and scientific truths e.g. Scientists categorize cells based on their internal organization. E.g. Water **boils** at 100°.
- **The use of the passive form**. It is used when the focus is on the action or the result; the importance is on the action itself. The doer of the action is not important e.g. Cells are sacs of fluid that are reinforced by proteins and surrounded by membranes.
- **The use of modals.** They are used to express certainty or possibility toward finding sand hypotheses e.g. a cell can take in fuel, convert it to energy and eliminate wastes.
- **The use of conditional expressions**: Conditional sentences present some experimental situations and their outcomes. They are often used to discuss the results of the research studies or are part of a scientific hypothesis statement. Most authors of

the scientific papers will use these sentences in their abstracts to discuss the reasons to conduct their study. E.g. If we boil the water at 100°, it evaporates. E.g. Plants die if they don't get enough water

- **The use of nominal sentences:** Scientific texts use nominalization to avoid repetitions of the same words and to convey an objective and an impersonal tone e.g. Reproduction is a major characteristic of life. Instead of using "Organisms reproduce. This is a major characteristic of life."

An example of a scientific text:

Today life diversity on earth is the result of evolution. On Earth life began at least 4 billion years ago, and it has been evolving every year. In the beginning, all living things on earth were single celled organism, after several years, multicellular organism evolved after that diversity in life on earth increased day by day.

DNA (deoxyribonucleic acid) is the double helix structure. Its duplicate copies have coded information coiled up in almost all of the 100,000,000,000,000 (one hundred trillion) cells in your body. In human DNA has 46 segments; 23 segments received from father and 23 from mother. Each DNA contains exclusive information that determines what you look like, your personality and how your body cell is to function throughout your life.

If one cell whole DNA was uncoiled and stretched out then it would be six feet long. Its detailed structure could not be seen due to its thin structure even under electron microscope. If all the coded information from one cell of one person were printed on books then it would fill a library of four thousand books and if the whole body DNA were positioned continuously, it would extend from here to Moon more than 500,000 times. If one set of DNA from each individual who still lived were placed in a *pile*, the final pile would weigh less than an aspirin.

Muhammed Aqeel Achref and Maliha Sarfraz.(2015).Saudi Journal Biological Sciences.

3-General features of scientific texts:

Generally speaking, characteristics of scientific texts are:

- **Clearness**: The author explains what an evolution is without ambiguity.
- **The use of technical terms**: DNA, Evolution, Cells, unicellular…etc.
- **Impartial**: All the information provided are proven by evidences: DNA has 46 segments.
- **Structured logically:** ideas and processes are expressed in a logical order.

- **Objective**: The author is not present in the text; no mark of subjectivity is used.
- **The passive form:** If one cell whole DNA was uncoiled and stretched.
- **The use of nominalization:** Its detailed structure could not be seen due to its thin structure even under electron microscope.

REFERENCES

Strevens, P. (1976). *Problems of Learning and Teaching Science through a Foreign Language. Studies in Science Education, 3(1), 55–68.*

https://www.le.ac.uk/oerresources/ssds/writingskills/page_65.htm