



Scientific Texts 1st Semester – 3rd Lecture

إيناس عطية

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Political Germs Reading & comprehension Consecutive Granslation phonetics Culture Scientific Gexts & Idioms Essay Contrastive Analysis Dictionaries Contrastive Analysis Dictionaries Contrastive Analysis Dictionaries Semantics & Syntax Granslation GRAMMAR Speaking & Listening Literary Gexts Interpetation Science of Granslation Discourse Analysis

- موجز المحاضرة رقم3:
- السمات الأساسية للنصوص العلمية والخصائص الواجب توفر ها فيها.
 - القواعد الهامة لتشيكل النصوص العلمية.
- المحاضرة نظرية ولكنها تحتوي على مفردات وترجمتها باللغة الإنكليزية.
 - هذه المحاضرة هي تغطية للجزء الموجود بالكتاب بدءاً من صفحة 32.

Hello everybody, last week we started with Chapter 1 and we had "An Introduction to scientific writing".

The characteristics of the scientific text:

As we agreed, scientific texts should be short and clear and it uses simple words and simple sentences including the results and it should be related to one idea using scientific terms and idioms without any redundancy.

Today, we are going to talk about "some Rhetorical Characteristic of Scientific Text" and about "The Scientific Method".

Scientific Method:

Method= way= approach= manner= process= strategy

If I want to follow a specific strategy in order to study something related to the scientific field, I have to depend on observation.

Observation = to check something closely= scrutinize

The material in scientific texts reflects the scientific method:

1-Data based on observation

2-Statement of a hypothesis

Hypothesis = theory= a supposition or a system of ideas intended to explain something and prove the idea, to argue for the idea.

Statement = an idea that we raised in order to follow it till the end and prove it. 3-An experiment based on controlled and uncontrolled variables.

Variables = things which are changeable; it depends on the situation because in order to be logical in scientific study you have to put anything under study in different situations in order to prove that what you say is fixed, but depending on things which are either controlled or uncontrolled.

4-Description of the methods to allow reproducibility (verification or falsification)
Verification = the process of establishing the truth, accuracy, or validity of something.
Falsification = the action of falsifying information or theory.

5-Report on results

Results = consequences = conclusions

When we use '**consequences'** we are talking about the results but in somehow are negative.

The format of a scientific article also reflects this interest. The opening sections usually consist of some variant of these elements:

The format of a scientific = the shape in which we deliver or hand our scientific text.

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We are talking about the opening of any scientific article and how it has to be, when we say "has to be" we mean it isn't optional to you = something that you have to stick with = you have to follow.

1-General remarks about the subject:

If you want to tackle anything you have to talk about remarks about this subject. These generally remarks are not too far but too close to the idea but it is step by step in order to **pave the way to the reader** = make things easier.

2-Statements of the problem and hypothesis:

In order to rise or to write any scientific article, you either write about general remarks or the second technique which is statements of the problem and hypothesis, which means in case we have this problem, this hypothesis in order solve /fix. it depends on the technique.

3-A review of the previous work:

When we shed light on things that others do before in this case, we are in front of two positions: Either to give something completely the opposite but on a strong background, or to agree with what they say but also in a strong way.

4-And a bid for a research gap where the particular work at hand is needed or will be useful:

For example, we talk about previous research, there is a gap in it and we make a bid which means a try in order to either continue or complete this gap= fix this gap.

التجريبية Empiricism

When we have a scientific text, the emphasis is more on facts that are based on observation and on the results of the experiments, but when we deal with social sciences and humanities, we are not focusing on the facts; we are focusing on interpretation. The language in scientific texts should be objective and it avoids biased language (المتحيزة). The language that represents the reality should not be distorted (المتحيزة) and when we have a clear language , we can understand the text.

Empiricists hold that the foundation of reality is sensory perception. Hence there is an emphasis on facts and observation, and less emphasis on interpretation than one would find in work in the social science or humanities.

When I talk about something related to the scientific field, I need something **tangible**= sensible = existing in a material or physical form not abstract.

Emphasis (noun) - emphasize (verb)

This empiricism is seen in the attempt at "objective" language.

Now, what is the difference between **subjective** and **objective**?

Subjective is a person's outlook or expression of opinion. A subjective statement relies on assumptions, beliefs, opinions and is influenced by emotions and personal feelings. An **objective** statement is based on facts and observations.

Language is generally seen by science to represent reality, rather than present or distort. If the language is clear, it lets reality through, and one then see the reality behind the language clearly.

The emphasis falls on:

- 1- Statements of fact.
- 2- The accuracy of terms and their one-to-one correspondence to things.
- 3- The exclusion of value-laden (charged/slanted or biased) language.

Exclusion = the process or state of excluding or being excluded= to omit= to avoid using. **Value-laden**= subjective= personal opinion opposite of objective.

Biased = unfairly prejudiced for or against someone or something, opposite of neutral. **Charged** = the opinion that you write is paid for it, there is money in order to write this idea.

Slanted = force ideas and these ideas are not fair about the topic.

- 4- The exclusion of subjective interpretation except for careful, logical, and responsible analysis of empirical data.
- 5- Empiricism is reflected in modern scientific style through the elimination of the firstperson pronoun "I" And a subjective point of view.

If you use the pronoun (I), this means that your way in writing is subjective.

Although science as a systematic approach to knowledge has been practiced in some form since the 17th century, the "objective style" is a recent development codified in the field of experimental psychology in the first half of the 20th century.

Scientific texts focus on:

- 1- Objective language
- 2- Facts
- 3- Avoiding biased language
- 4- Accuracy
- 5- Systematic approach to knowledge.

Observation

Observation: is a method of constructing knowledge= building knowledge= to set up the knowledge.

Observation: when you scrutinize something when you study something closely for a long period of time.

یمحص:Scrutinize

Because of its basis in empirical proof, science, privileges observation. This idea, using observation and verification as a method of constructing knowledge, was a cultural invention developed over several centuries.

So, the question is: what is observation?

- 1- Comes after scientific study
- 2- Is cultural invention \checkmark
- 3- A&b
- 4- None

Specialized Terminology

Specialized terminology means jargons = specific terms related to the scientific field because of the experimental article that represents activity among experts within a discourse community of scientists, it uses the specialized vocabulary developed by particular fields.

Now open your book on page 32 and let's read:

v. Scientific style

The following stylistic characteristics are the main characteristics of good scientific writing:

- 1- It presents facts, it deals with the application of scientific generalizations to specific situation.
- 2- It is accurate and truthful, it does not guess, it tells the truth.
- 3- It is disinterested, its purpose is to inform, not to achieve selfish purposes or to persuade the reader. Facts alone do not make writing scientific.
- 4- It is systematic and logically developed.
- 5- It is not emotive, its appeal is to reason, logic and understanding, not feelings. When it generalizes, it does so in accordance with the laws of inductive reasoning. It avoids high-level abstraction with emotional appeal.
- 6- It excludes unsupported opinions.
- 7- It is sincere = honest. It tells the truth and avoids language that would make the reader question its sincerity.
- 8- It is not argumentative. It reaches its general conclusions on the basis of facts.
- 9- It is not directly persuasive, it is concerned with facts, with the general laws that maybe derived from the study of facts, and with the application of general laws to specific problems. If it persuades, it does by logical reasoning.
- 10- It does not exaggerate, because it is disinterested, it does not distort facts.

VI. Typographical Rules for Scientific Texts

Typographic: the art or work of preparing a book in order to be printed and ready especially for design= framework

In scientific texts the printed form of a symbol often implies a meaning which is not easily captured by generic markup.

Therefore, authors using some form of generic coding (like LaTeX or SGML) need to know about typographical conventions.

The following is a brief summary of the most important rules for composing scientific texts:

1- The most important rule is consistency: a symbol should always be the same,

whether it appears in formula or in the text, on the main lines or as a superscript or subscript.

i.e. in TeX, once you have a symbol inside mathematics mode ('\$'), always use it inside mathematics mode, inside math mode, TeX by default prints characters in italics.

- 2- In all cases, following these rules, will help the reader understand at first glance what one is talking about.
- 3- Let your word processor do as much work as it can. Do not try to change your system's defaults too much; this will decrease the portability and maintainability of your documents. TeX implements part of the rules mentioned above by default in math mode.
- 4- Do not add **blanks**= spaces at random to make formulae look "nicer".
- 5- **Restrain** =stop doing forms using specific page layout commands (like/ break with TeX). You will forget that you put them in your text and later wonder why some texts are badly adjusted or start a new line.

The comprehension of scientific text would be much more successful if students were able to generate these inferences, questions, and answers to questions.

فریق Academists

عنوان مكتبة الكمال: ((كلّية الأداب – داخل الحرم الجامعيّ بناء الصحافة/ جانب المدرّج السّابع))

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