

# THE PROBLEM OF UNDERSTANDING WRITTEN TEXTS (EFL ENGINEERING STUDENTS)

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At every EFL classes engineering students deal with different texts to read, translate and understand: textbook passages, worksheet questions, short stories, Internet articles, etc.

For these reasons it is essential that EFL students should understand what they read. It is not unusual for a student to pore over a text for a couple of hours with a dictionary and still not understand it very well. Yet with a little assistance their frustrating reading experience can be turned into a more profitable one.

**The purpose of this paper** therefore is to consider some of the factors that can make texts difficult to understand.

What makes texts difficult to understand? Here are the main problems of language difficulty for EFL engineering students [1]:

## ***Illegibility***

The wildest spread difficulty in reading connected to the legibility of a text. EFL students may have problems that are caused by the fact that what they are trying to understand has been poorly printed or copied.

## ***Unfamiliar Words***

A written message may be difficult to understand because it contains many words that students never meet before. In the sentence bellow, for example, the instruction is simple, but the language in which it is expressed is not:

*Device as claimed in one or more of the foregoing claims, wherein the pressureless container comprises a cartridge holder adapted for the placing of one or more extinguishing agent cartridges, wherein the number lies between 1-6 and preferably equals 3 [2].*

## ***Lack of Background Knowledge***

Another difficulty arises in cases where the necessary background knowledge is missing. Unless the student has a basic understanding of engineering, for example, there is little point him/her looking up the unknown words in the following passage since the definitions are unlikely to further comprehension.

*The hungry machine chews up the wood and then forces it through a meshed screen with different sized holes that separates the finer, almost*

*sawdust-like, bits into one pile and spits out the roughly chopped chunks along another conveyor [3].*

### ***Difficult Concepts***

The next difficulty can be seen in texts such as the following:

*They're explicit about moving away from fossil fuels, and reorganizing energy markets around efficiency and renewability, and many of the surrounding notions of what will be required to achieve that are strong [4].*

The words in themselves are not unduly difficult and no special background knowledge is required, but the concept expressed in the passage is complex.

### ***Complex Syntax***

The engineering texts are also difficult because of their syntactic complexity. In general, long sentences containing subordinate or embedded clauses tend to be less immediately intelligible than shorter, simpler ones. For example, the sentence below would be more understandable if it were divided in few sentences with more simple structure

*Some authors estimate the activity coefficient of the hydrogen ion in solutions of polybasic acids to be much greater than the mean activity coefficient of the acid, and that the activity coefficient of the hydrogen ion is between 100 per cent and 82 per cent for all concentrations up to an ionic strength of 0.6 molar [5].*

### ***Polysemy***

Polysemic words are words with multiple meanings. These can cause difficulty if the student has learned one meaning of the word, but the word has a different meaning in the context of the sentence the student is reading. An example is the word solution which can mean either the answer to a problem or a mixture of two substances. Mathematics is full of words that EFL students are likely to have learned first with their everyday meaning: table, mean, power, even, volume, root, etc.

Jokes and puns are frequently based on the polysemic nature of the words they contain, which is why they are usually so difficult for EFL students.

### ***Poor Writing***

The final source of difficulty is associated with the many different manifestations of poor writing. For example, a text may be difficult because the ideas are not organized logically, or because punctuation is lacking, faulty or ambiguous, or because cohesion is slipshod. The following extract, taken from a recent IB Computing Studies exam, has an example of poor cohesion.

*A bar code is often found on produce sold in supermarkets and, by means of a bar code reader, a computer can directly identify that item [1].*

### **Conclusion**

In this way, EFL engineering students should read texts, especially technical texts, as more as they can in order to improve their ability to understand these texts, to be able to deal with this kind of paper work and to become highly qualified specialists in their future professional career.

1. A guide to learning English / Web site //

URL: <http://esl.fis.edu/teachers/support/commun.htm>, free.

2. FIRE EXTINGUISHING DEVICE AND FIRE MANAGEMENT SYSTEM / Web site // URL:

<http://www.sumobrain.com/patents/wipo/Fire-extinguishing-device-management-system/WO2010024672.html>, free.

3. Waste not, want not: how the rubbish industry learned to look beyond landfill // The Guardian / URL: <http://www.theguardian.com/environment/2015/feb/27/waste-rubbish-industry-landfill-recycling-dumps-incineration>

4. EU's energy union must overcome serious obstacles / Web site // URL: <http://www.theguardian.com/environment/2015/feb/25/eu-energy-union-must-overcome-serious-obstacles>.

5. Physical chemistry; a brief course with laboratory experiments, by Louis J. Bircher / URL: <http://babel.hathitrust.org/cgi/pt?id=coo.31924000036594;view=1up;seq=317>.

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