

“English as a Second language and its use in Science”

Abstract

I. ESL / EFL used in the Sciences

II. Suggestions for Teachers to adopt English for the Scientific Language, Pragmatic Use of English

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Abstract

This article deals with the use of English as a foreign and a second language in science. English as an international language is used by all the people in the world that share the same things or opinions about international or personal matters. Teachers, professionals, engineers, doctors, lawyers but even students or blue collar workers want to learn and use it. The reasons for everyone are different, someone studies and learn it because he/she needs employment the same may be a reason even for a worker that travels and work in western Europe or a different country, a student needs it to study in a foreign country.

As the reasons are different even the way, the methods , the textbooks are different. As we are speaking about science, the scientists or students of science learns English to represent themselves in seminars, conferences or even to communicate with others like them in different

parts of the world. In this article I have tried to give my point of view about that English language that is used in science, what should a scientist or a student of science do to learn the right language that they need. It's the duty of an academic teachers and other teachers to teach English for a specific purpose in this case English for science.

A wrong use of the language gives wrong opinion about what someone wants to present to others and all of us now that Science is an exact language and if you are not able to represent correctly your solutions or opinions, the others cannot understand the point. For what I have written is my opinion as an English lecturer from ten years up to now and my experience of teaching not just english students but even engineers, bussiness students, jurisprudence students when to each of them it was introduced that kind of english that was needed for their aims of studying English.

I. English as a Second Language and its use in science

Everyone wants to learn a foreign language and everyone wants to learn English. Why? The reasons are different.

As English is an international language it offers a lot of possibilities to people in differen parts of the world: to study, to communicate with your pairs or mates or colleagues, to be employed, to translate materials needed for your job, but there are even people that studies it for pleasure. When we study a language we study it not to lock it in the closet but we study it to use it that meens communicate ibn english as we communicate in our language.

We use different textbooks and different methods to learn English. But are these textbooks the same- The answer is no because even the level even the language used is not the some. Many books are introduced nowadays that in cover is written” Business English” or Medical English or other stuff like these; Why? Again the answer is: because the reasons or the aim of studying is not the same. As we are gathering together today as teachers of English language to discuss about its use in science so let us deal with hoe shoul we teach our students.

Science is chemistry, biology, physics but science is even everything that is “exact” in the meaning that you don't have the chanse to alter things because they have just an answer.

Engineering that deals in different syllabuses such as mechanical, naval or even chemistry and others need things to be done in the exact way. As english is studied everywhere and in every university our students need to study that kind of english that is proper for him. Imagine a scientist that wants to give the solution of something in a conference. What would happen if the choice of words is not correct- He/She would be misunderstood so his job wouldn't be appreciated. For this reason he should be careful in giving an argument, in choosing the right words.

Our duty as teachers is to help scientific staff for whom English is a second language to become world-class communicators, orally and in writing. They have to improve language skills and enhancing cultural awareness. As people live in different parts of the world,different cultures have different ideas about what constitutes an appropriate paper . In some cultures, where it is politically dangerous to write arguments, students are often taught to piece together their papers from certain "approved" materials. In other cultures, where argument is considered to be an overly "subjective" medium, students are taught to report just "the facts" in their papers. So students go in a stress. But it is a problem even for those that doesn't now how to write something because they don't now the style of writing or how they should represent an argument. For these reason a teacher should be the eyes, the brain of these students. It's a

different thing when you are an English student, and a different thing when you are a science student that has in his own courses even an English course. It is difficult for the latest to present an argument in English language. They want to present something to others and they have to give arguments. If they want to convince the audience they have to choose the right words in order to be understood by others. If not their study work will vanish.

How should they learn, what should they learn, how should they represent a paper, an argument, what language should they use. All of these have just an answer- Is the academic teacher that is directly responsible for their English learning, usage. Is the teacher that has to meet the demands of their students. Is the teacher that should use English for specific purposes such as for students of chemistry and biology or physics and others. If we want our scientist students to have success they should teach to them the proper English language, in this case is not just the student but even the teacher that has success and is proud of its students.

Now let us consider some suggestions for teachers how to teach their scientist students and to make a pragmatic use of the English language, in our case EFL/ESL in science.

II. Suggestions for Teachers to adopt English for the Scientific Language & Pragmatic Use of English:

I spoke above about the use of English in an appropriate way now let us consider some suggestions of how to teach English to our students. We spoke about presenting an argument. How should a student present an argument. Not being an English student it's difficult to write with proper words, proper style. Usually scientific papers present an argument so they should contain an arguable point. We are trying to distinguish between a report, which summarizes information, and an argument, which presents a point of view.

When a student of science or a scientist is writing an academic argument, they will want to consider what their position is on a particular topic. Knowing the position they begin the process of presenting to create an appropriate scientific argument. Even writing a scientific essay there is a thesis sentence, an introduction and arguments are introduced in paragraphs. Different cultures have different values when it comes to arguing a point. Everything should be given in a logical way. Paragraphs should have clear ideas, everything should be sharp and clear. Are these things that we should teach to our students.

Our scientist students should create an argument, everything should be sharp and clear, the choice of words, the length of the paragraphs. For an English student is easy because he/she deals with syllabuses such as academic writing, so an English student nows well how to write, what

style to use, if he wants to narrate or argument something. In this context a science student should be given right tips and rules how to present this argument in english. So the style is a different one from the style used for example to present a story, a romance or something else. Being an english teacher from ten years up to now I have dealt with different students from different branches. I have always tried to teach them an english that they could use. Naval engineering students for example needed to learn parts of engines of a ship. In this case I choosed a book dealing with this things when even the grammar was represented in words or sentences dealing with naval stuff. In the case of specific things dictionaries that has to do with special uses of english helps a lot.

Presenting arguments by writing:

We should teach our students how to write papers. Before writing words to paper in an engineering or scientific trying to communicate someone should not begin filling pages with sentences unless they have a general idea where those sentences are headed. Everyone should now what are the things that an audience wants to now, someone presenting something must be clear and not boring.

We should teach how to represent something in written form according to the aim of the presentation.

1. *Cause and effect*- In these context if we want our students to give the cause and the effect of something in written form for example the destroy of ozone layer, the scientist or a student should use those words that clearly shows this by giving logical evidences to demonstrate what really happens and what are the consequences. In such kind of writings logic and evidence should show the relationship between an event and its cause.
2. *Process Analysis*: In writing process analysis, the writer describes a sequence of steps necessary to a process. These steps are arranged chronologically and should be represented as such.
3. *Definition*: If someone wants to give the definition of something they should illustrate everything in order to be clear. This paper should give even the meaning of key words to be understood better.

Style- structure, language and illustration. If we want our students to be brilliant in what they write then we should suggest to them or even study ourselves books about style such as “Elements of Style” (Strunk, 1918). For an analysis of style in scientific writing, any teacher consult a guide book such as “The craft of scientific writing” (Alley, 1996).

Audience

Audience is very important when a scientist presents an argument for this reason audience is very important. A person presenting something must must first decide who their readers are. Are they professors, managers, engineers, scientists, or technicians? You also assess what your audience knows about the subject. What terms will you have to define? What background information will you have to include? This is often referred to as the purpose of the paper that you present. Is the intention to inform or to convince? Finally, in assessing the audience, you

assess how your audience will read your paper. Will they read it straight through like a story or will they turn to specific sections?

Pragmatic use of the English language

When we speak about pragmatic use of English language we as teachers should bear in mind the real meaning of “pragmatic”-that has to do with using the proper language in the context according to the situation and the needs of the reader- in our case science students. English teachers should refer to different textbooks to teach scientific English. As Sampson wrote in her advice to ESL teachers in 1990, this outlook leads students to believe that "high achievement is a duty, rather than a sign of personal success" . Scientists in less developed countries especially in eastern countries face many barriers as well, including limited libraries, variable access to computers and copying machines and in many cases even internet. We as teachers should offer to our students different possibilities to study English.

Apart from textbooks a scientist student may learn English exploring different links in internet, scientific magazines, dictionaries such as Longman or others, talking in English to people like them is a very good opportunity. TableTalk for example is a low-pressure way to practice English conversational skills, to form relationships with each other and with native speakers of English, and to have a good time. The skill of writing is an essential skill for the successful engineer and scientist. As a mechanical engineer or scientist, you cannot treat your writing in the same way that you treat fluid mechanics or organic chemistry.

We must not forget that a language is learned in context so we should teach to our students pragmatic use of English language. We should encourage our students to use English for their scientific purposes to develop it. To make a pragmatic use of English they should use different resources as mentioned such as computers, teachers, peers to make science accessible, visible. We discuss ways the curriculum can guide students to make their own thinking visible. And, we describe how technological supports make scientific ideas visible. We learn a great deal from each other. Learning from our friends helps a lot. Learning by interaction helps our students a lot . So as a conclusion to everything the way we teach English to our scientist students helps them to be successful and we shouldn't forget that to be a good teacher means to teach in the right way means to teach English according to the needs and the feelings of our students.

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