

RESEARCH ARTICLE



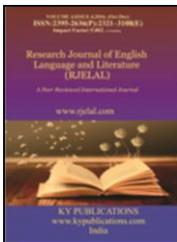
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The Challenges of the EST Teacher and Students in a Bilingual Institution

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ABSTRACT

This work sets to identify the needs of the EST students and teachers in a French-speaking institution. It seeks to illustrate how to: create situations with objectives, involve teachers and students in class activities, use errors to develop skills and expose learners and teachers to methods and approaches to new technologies. English language teaching tends to be tilting towards English for science and technology as nearly every domain in life is linked to science and technology. The breakthroughs in science and technology produce breathtaking equipment, implying that it is imperative to keep abreast with information. Technology, science and English are indispensable and inseparable. As a result, The University Institute of science and Technology has made the teaching of the English language, compulsory with a coefficient higher than in any other course. The students, who learn English as a compulsory subject, find it hard not to take it seriously as it is a determining factor in the issuing of their certificates. They must write the TOEIC (Test of English for International communication) and score at least 750 on 990 at the test. They must equally show signs of hard work in English by not scoring less than 13 on 20 as average at the end of each semester. To better prepare learners to be useful and be in their element in the field of science and technology, questions have been used to generate teaching materials from selected articles. The results of the findings indicate areas that need some attention.

Key words: EST; materials; research; challenge; interference; roles

Highlights

- This study aims at creating a situation for science and technology students to be able to carry out research in the English language.
- It brings out a practical method of making students get used to presentations at conferences in English.
- It suggests methods of moving from theory to practice.
- And finally, demonstrates how to generate teaching materials, relevant to the domain of learners.

1. Introduction

1.1 The students

Following the reunification of French-speaking and English-speaking Cameroon in 1961, The Cameroonian government has put into place programs for the implementation of bilingualism Forchap (2016). Francophone students in the University Institute of Technology study English and are required to score at

least 750 points on 990 at the TOEIC (Test of English for International Communication). They must equally show signs of hard work in English by not scoring less than 13 on 20 as average at the end of each semester. To better prepare learners to be useful and in their element in the field of science and technology, questions have been used to generate teaching materials. Selected articles from the research of

students with features worth noting were the sources of materials. The teacher thus, as a practitioner of EST (English for science and technology) plays the roles of teaching, course designing, and acts as materials provider, collaborator researcher and evaluator Dudley Evans and St. John (1998). The teacher therefore bearing in mind that, the focus is on what learners learn and not how they learn Hutchinson and Waters (1991) uses the selected articles to develop the various skills.

A lot of emphasis is placed on the learning of English language in the University Institute, which is a shift from the normal tendency in Cameroon where students in technical schools are offered very few hours of English lessons.

As future engineers, English is of paramount importance in their studies. They are thus trained to carry out research, use documents published in English and with the supervision of the teacher, analyze the article, make comments, give points of view or say how research findings can be adapted or used in other ways. They are trained to be curious, inquisitive, and observant and most of all be current with the new developments in science and technology. The notion of taking down notes is emphasized. Students and teachers of EST need material prepared by themselves Smoak (2003, 27) The motivating force behind all this is to be able to face challenges as the students go out into the field of science and technology which is predominantly English.

1.2 The EST teacher

EST (English for science and technology) is a challenge to the students as well as the teacher. It can be very embarrassing for the teacher not to understand what the students are talking about in their presentations or writings. He has to keep abreast of current issues for his own ego as he runs the risk of losing the confidence of his students. Since he is not of the discipline, he is not expected to get into technicalities and that is why he has to work with an expert in the discipline. Stoller et al.(2005) stress the importance not only of working with discipline specialists in designing EST interventions, but of working towards a shared understanding with discipline specialists of what is valuable to them in writing, The students on their

part are obliged to do the assignments since they know that the evaluation of the work counts at the end of the semester This is an incentive or them to work harder.

3. Methodology

3. Method

3.1 Sampling

The sample consisted of 80 engineering students in the third year class who take English as a compulsory subject. They need the English language not only to be able to use it when they leave school to work, but also to pass the exam. It is a big deal to be able to do well in English as it can be an obstacle to the issuing of the diploma. The coefficient allotted to the English language is six, which is the highest, surpassing all the other courses. The number of hours allotted for English is equally impressive -252 hours a semester as seen in the procedure section below.

3.2 Materials

The students provided the articles themselves. There were 80 articles from 80 students on varied topics to do with science and technology such as; Transforming Co2 into stone, a solution to global warming, Urber enlists industrial partners for its flying taxi service and makes its project more concrete, knobs are adjustable ear plugs that might save your hearings What is Gout?, A pill with the same effect as physical exercise, Filters based on carbon nanotubes.

This provided material to work with. They had to use question words to ask questions about the article, give their opinions, or comment, and summarize in their own words.

3.3. Procedure

The following is the task that was given to a third year class of 80 students in the University Institute of Science and technology:

Look for an article on science or technology. Copy it and then,

A Use the expressions below to ask questions about the article and answer them

Who, what, when, how, why?

B Give a very brief summary of the article in your own words

C Give your opinion about the article.

The students were all Francophones learning English as a major course in their study. They were given one week to do the assignment. The work was corrected in class.

For 152 hours a semester, tasks were spread out as follows

For the 8 hours a week, 1 assignment was work for 1 hour.8 assignments per week.

The 80 assignments treated provided materials for 80 hours but most of the time 1 hour was too short as a lot had to be looked into. In the end, 1 assignment took about 3 hours. 80 assignments gave more than enough work for 240hours.

The articles were scanned and projected.

Each article on its own had features to be discussed, with students identifying what they found out of place or worth noting. This was discussed, at times with the help of a dictionary or surfing the net. The teacher from time to time worked with a colleague of the discipline before a lesson to discuss the subject matter in the articles.

3. Methodology

3.1 Data Collection

To identify the students’ areas of difficulty, the issues to be handled were classified into the following categories:

A - Asking questions. B -Giving main points. C- Grammar and vocabulary. D- Interference

The manner of asking questions had to do with question words-who, what, why, how and when.

The summary focused on the idea of distinguishing between relevant and irrelevant ideas; ability to be able to pick out main ideas without giving all details.

This is a deviation from the norms of using textbooks and other prepared materials.

Johns (1990) affirms that no one ESP textbook can live up to its name. He suggests a resource bank of pooled materials made available to all ESP instructors. These materials collected by the students could serve such a purpose.

3.2 Analyses:

3.2.1: Asking questions

No of subjects	Question word	Right way	%	Wrong way	%	Total
80	What	40	50%	40	50%	80
80	How	20	25%	60	75%	80
80	Why	30	37.50%	50	62.50%	80
80	When	30	37.50%	50	62.50%	80
80	Who	40	50%	40	50%	80

3. 2.2: Summary

No of subjects	Too long	%	copying	%	With grammatical errors	%	Clear &concise	%
80	25	31.25%	30	37.50%	70	87.50%	10	12.50%

The above data reveals the percentage of students who could use the given question words correctly. 50% could ask questions with the given question word ‘who’, 20% with the word ‘how’, 30% with the word ‘why’, 30% with the word 30 % with the word ‘when’ and 40% with the word ‘who’.

The data also shows that 31.25% came up with summaries that were too long, 37.5% virtually copied the article, 87.5% made common or unusual grammatical errors and 10% came up with clear and concise summaries.

In the course of asking questions, summarizing and giving opinions, there were grammatical errors stemming from problems of second language, acquisition and interference of the French language.

4. Results and Discussion

This section discusses the results obtained from the data collection

4.1 Asking questions

What, how, why when, who

Students ask questions without respecting grammar rules and do not know the difference between asking a question and making a statement. The interrogation mark is wrongly used;

“Who have **think** about this project? This is a problem of tenses as a result of French influence. In French, the present perfect is used in place of the simple past tense in sentences at times. So students find it difficult to understand when to use the present perfect and when to use the simple past Forchap (2016).

When this article have **been writing**? This is a sentence but put into the interrogative by using the mark which is not correct. There is the problem of tenses-the present continuous and the present perfect

Why **researchers publish this** article? This is a statement but the interrogative mark is used

Who speak in this article? A problem of tenses.

About what speaks this article? French translation-de quoi parle cet article?

How makes itself the fusion of these atoms. This is a direct translation from French-comment se passe la fusion de ces atoms?

4.2 Grammar and vocabulary D interference.

As pointed out in Forchap (2016), there are some errors very common, frequent and peculiar in the English Francophones write and speak. Gatehouse (2001) attests that there are a number of variables which characterize a heterogeneous learner group. This assertion holds for Francophones who are not only faced with the problem of being able to speak both French and English as official languages, but also have the extra task of learning English for science and technology.

Below are some extracts reflecting frequent errors in grammar, vocabulary and interference.

Before, (French interference. Before is used in English to indicate something earlier than a particular event or action. This should read 'before this time or before now etc', whereas in French the sentence as it stands is correct=avant) one used a certain category of lamps, but lately we noted the **apparition** (French interference -in place of emergence.) of a new type of lamp, functioning with **the** (the article used is not necessary-this is French influence where definite articles are used where they are not used in English) salty water **named** (French- in place of called or known as) Salt.) It has been created... (French intervention-discovered or invented)

This article talks about "gout" which is a form of inflammatory arthritis. **Then** (French =alors) we can also call it "gouty arthritis". This disease affects men particularly those between 40 and 50 years, but can **touch** (French- 'peux toucher' is the verbatim translation which actually means can affect) young boys. The principal cause of this painful form of arthritis is the too much (French-the problem of article) uric acid in the body. It is a disease which affects humans **so** (French- verbatim translation 'so' can be translated as 'si', meaning 'if I may say so...') men particularly those between the age of...

This article **permits to have** (French interference-permit to have is a direct translation) some informations about "gouty arthritis" Above all we have many symptoms to **reconnaître** (French interference -homophones -almost sound the

same). We recognize that with its **differents** (French influence where adjectives take the plural or singular form depending on the noun that it qualifies) causes, symptoms. And with all that, we see that it is not a **simple ill...** (French 'simple' is used to mean it is not a mere, or small or complicated disease, but in English the word is inappropriate, ill is used in place of illness or disease, which is a direct translation-'mal'). When the treatment **don't** (grammar- third person singular) follow then, it is another kind of **sensibilization** (French_influence -sensibilization seems to sound like the English word -sensitization)

Information must be kept confidential and **integer** (French influence - intégré in means integrated) inside a company's system to guarantee **his** (French influence. In French, there is just the gender element- masculine or feminine. This article is about an experimental pill or molecule GW1516. It was set up to compensate for lack of physical exercise in an organism. However, **she...** (French influence- a thing is either feminine or masculine)

In English there is the masculine feminine and neutral factor. The brain is a muscle and like any other muscle, the more you train, the more it becomes **performant** (French influence -word for word translation. The word performance exists in English but not performant). **Only the effort make the strong.** (French influence-the translation brings in the use of the definite article which is not necessary.) like overweight, when we drink too much -alcohol and it can be a family history of gout. So we **must be attentive.** (grammar and vocabulary -attentive-French expression for be careful is 'attention'. There is a confusion between attentive and attention) with our health. And for those who have this disease, they must take care of themselves.

I think that the author is right **to the risk** (French influence- the preposition 'to' is used in place of 'about') of cyber security nowadays;

The article speaks about a pill which produces the same beneficial effects that the exercise physical... (French influence- in English, the adjective comes before the noun-physical exercise)

...who do not have this space to **make** sport (French influence which makes it difficult for the students to be able to differentiate between make and do)

The author's mind view about cyber security is that **nowadays lot** (grammar - article) of companies are **facing to** (Grammar because of French influence. In French; it is 'face à, but in English there is no preposition when it ends in 'ing'. It can only take a preposition when used as a in 'faced with...')

Its use **would be able to contributed as the reduction** (the problem of grammar, particularly the use of tenses) of the **rate of** (vocabulary is not mastered- amount should be used) carbon dioxide and help the people who live in electrified zones."

The product **started to be** (grammar- appeared in the market) in the period of March-April (grammar) This **create** a bubble of isolated silence.(third-person)

The world is evolving today. That men therefore find technology that correspond (grammar- the use of 'that', the punctuation mark is wrongly placed, and the use of the third person singular is not mastered). I think also that, this **quit** (vocabulary- the wrong word is used , perhaps pronunciation or spelling mistake) technology cannot be bad **for** health (problem of article-the health)

...who drink **a lot of quantity of alcohol** (Grammar- 'a lot of ' is already a quantity)

... its concentration is seen **in big toe** (article),feet knees, wrists or elbows. **In fact,** (grammar used when you are adding something, especially something surprising, to emphasize what you have just said) when gout **stay** (grammar- stay is different from remain-the third person singular should take 's') for a long time without any treatment, it can also **meant** (tense) **most other damages.** (grammar;uncountable-physical. 'most' is wrongly used)

...it implies **a regularly treatment** (grammar-comfusing adverbs and adjectives) to **seem well.** (vocab 'seem' and 'well' are out of place) it like redness (punctuation) tiredness and swelling of the joints and **other,** (grammar- confusion between other and others). Finally, we must know that some parameters can make a person susceptible **to have** gout (grammar-problem with the infinitive and verb+ing to having and to have):

... some **informations about** "gouty arthritus" (grammar-countable and uncountable-information does not take the plural form).

... several cyber-attacks **on** their information system and need to protect them. **Then** ,there is need **of** ('Then is the wrong word because of French influence 'alors', which could be translated as 'so'- grammar -'for' should be used) qualified IT employees specialized in cyber security.

My opinion

- I. Think that this initiative to put together a pill that compensates for physical exercises is a good initiative in the sense that its objective is to seduce **sedentary** (grammar- sedentary is an adjective – it should be sedentary lifestyle) handicapped or obese, or cardiac (cardiac is an adjective) This gives them more hope to live. In addition, side effects such as cancer are observed only if overdoses are taken.
- II. On the other hand this substance does not **exert** (vocab + grammar –exert pressure on the muscle) the muscle), it only burns fats in the body and makes it more enduring.
- III. The article was **writing** (grammar-verb tense &spelling)
 The article was **writing** by Steward Prager who is a professor of astrology science, former director of the Princeton plasma physics laboratory and Michael C. Zarnstorff who is deputy director for research, Princeton Plasma physics laboratory at Princeton University.
- IV. What does this article talk about?
- V. The article **talk** (Grammar- third person singular) about the future energy that will change the **word** (pronunciation affects spelling world is not correctly pronounced) in electric energy production,more precisely,the fusion of two nuclei of hydrogen atom (deuterium and tritium isotopes)
- VI. The article **was publish** (grammar) on Wednesday **november** (punctuation)
 In fusion, two nuclei of hydrogen atom (deuterium and tritium isotopes) fuse together.

- VII. (article – there should be ‘A’ before brief) **brief summary about the article**
- VIII. Progress on scientific research and engineering has been improved for the fusion of hydrogen atoms. **Since 150, in order to maintain** (unable to summarize - just copying) these reactions for long periods and to design a structure to exploit the power of (article left out- ‘the fusion’) **fusion of electricity.**
- IX. The summaries are too long. It is imperative for students to know how to summarize. Presentations which are too long and boring cannot receive positive remarks and can always be frustrating on the part of the presenter.

5. Conclusion and Suggestions

The present study has identified errors common in the written and spoken English of the French-speaking students in the University Institute of Science and Technology-UCAC-ICAM in Cameroon. There is a lot of material that could be exploited in this way by teachers and students rather than going out to look for old texts which are sometimes obsolete. New articles come up every day as long as inventions and discoveries in science and technology keep making great strides. Students are made to be conversant with the changing world, while the EST teacher is compelled to work twice as hard if he has to gain the confidence of his students. There will always be material to work with. All the skills are developed in this way as from time to time the students can present their research work or just read while the others listen and make comments. The teaching materials have been successful in that they have met the needs of the students in a natural atmosphere. These are engineering students and the materials are just what they need.

The exercises bring out areas that need to be emphasized: Grammar and vocabulary

The Grammar and vocabulary items checked on language deviations so as to improve their basic competence in English. They need a lot of practice in ordinary usage relevant to their field of study and as close to real life situations as possible as suggested by Gatehouse (2011), creating a real life atmosphere and making students work as directed by the

instructor. They need to learn how to take down notes and not try to write all what they hear or read.

These are areas that require remedial activities which could be generated as presented in this work. This could also hold good in situations where other languages apart from French have some influence or interference on the English Language; Japanese, Spanish, Chinese and others. The experiment was a very enriching experience as the students took control of the class wanting to give their opinions but there was the time factor. It is worth noting that even the laziest and slow students were seen to participate especially as they had to prove that they knew what they were doing.

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