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The Implications Of Integrating Science Technology And English In A Bilingual University: The Case Of The University Of Dschang.

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Highlights

- This study has identified some grammatical features of interference in the learning of the English language in the Faculty of Science and the University Institute of Technology in the University of Dschang
- It cautions that putting into place a program for EST needs careful planning considering the forces of interference.
- A bilingual setting is different from a monolingual setting, so there should be a difference in needs and therefore, programs should be different.

Abstract: This article examines the common grammatical features typical of Francophone and Anglophone English in the Faculty of Science and the University Institute of Technology in the University of Dschang. This could be due to the influence of French, Cameroon being a bilingual country. Vocabulary, the use of articles, pronouns, prepositions and pronunciation seem to pose a problem as they are applied almost differently in the two languages.-French and English. French and pidgin English appear to have an influence on the English Anglophones speak in the areas of grammar and vocabulary as well as language usage. It as well examines attitudes of students towards the English language and their competence in the language. It stresses the importance of conducting a rigorous needs analysis before designing a course Porcaro (2013) This could be a step to remedying the prevailing situation in the University where the learning of English for specific purposes is ignored. The English language has to be spoken and written correctly by scientists and engineers who have to feed the machines with information or teach others who are not of the field to use the machines and the information Forchap (2015). A competent scientist or engineer has to be relevant communicative and defensive in his presentation so as not to be taken out of context. This requires the weapon of the language of science and technology –the English language. The language of science is brief, precise and clear, not giving room for flourishes, such as metaphors, irony, proverbs and idioms which are necessary to persuade the audience and fight boredom and disinterestedness in conferences and even research publications. Simplification and jargon in the language of the scientist or engineer robs the scientist of vocabulary and self- confidence in the event of logical argument or persuasion at conferences Mbangwana (1987)

Key Words: EST; interference; bilingualism;, implication; vocabulary; grammar.

1 Introduction.

The study brings out the need to develop strategies to integrate English, science and technology as well as the implications in a bilingual setting. It points out the dangers that could arise in the attempt to integrate science, technology and English, as it could lead to disinterestedness on the part of the learner if not done tactfully. The role of the teacher of English for science and technology should be seen as indispensible since he is there to facilitate the learning of science and technology. The English teacher is challenged to move with time so as to catch up with scientific and technological discoveries to illustrate the dynamic nature of the English language which evolves with science and technology. This in turn will excite the learner, whether Francophone or Anglophone, who is then spurred to discover that the teaching of English for science and technology is an illustration of the new and fast -changing world of science and technology. The teaching and learning of English for science and technology in Cameroonian universities is becoming more and more complicated considering the multilingual nature of the country which is

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officially bilingual. The study points out that, mathematics is an important component of English and deserves special attention.

2 An overview of the faculty of science

2.1 The place of English in the University

The University of Dschang, started as a University Center which had the USAID and became a full university by decree No 93/029 of January 1993 with the faculties of Agronomy and Agricultural Science, Economics and management, Sciences, Law and Political Sciences, Letters and Social Sciences, all with their various departments. It has a university institute of technology, which is officially known as "Institute Universitaire de Technologie Fotso Victor" (IUT-FV) established to cater for the engineering sector.The courses offered in the University Insitute of Technology are;Electronics, Electrotechnics, computer sciences for management, Telecommunication and Computer Network, Industrial and Productive maintenance, Commercial Techniques, Accounting and Business management, English language. The English language has its place in an all-technology instituition. Forchap (2015).

2.2 Academic structure of the faculty of science

In the faculty of science the students study the various courses offered in the faculty of science and the school of Agriculture; namely; biochimie,(biochemistry) biologie, (biology) math-info,(computer mathematics) physique,(physics) chimie,(chemistry) mathematiques,(mathematics) biologie animal, (animal biology) biologie végétale, (plant biology) agriculture (agriculture), Anglais (English) as they are popularly known.

It must be added that the language laboratory was intended for use by the school of Agronomy for the disciplines of the faculties of science before it was generalized to the other faculties.

3. Methodology

A questionnaire was administered which aimed at elucidating the respondents' point of view as to the importance of English, the possibility of being a competent scientist or engineer without knowledge of English. The questionnaire also aimed at evaluating the extent of the understanding of English and the practical use of English in talking about science.

200 samples were selected -100Anglophones and 100Francophones.

A written exercise was administered to students in which they were asked to; (a- describe the structure of the tooth (b)-describe an experiment of their choice. (c)-describe the digestive system.

3.1 Context of study

The investigation was carried out in The University of Dschang to reflect the country's history of bilingualism with French and English as official languages. The informants were students in the Faculty of Science and the University Institute of Technology.

These students of both French and English expressions are taught by teachers who express themselves in one or both languages.

In all there were 200 subjects.

Several techniques were used to collect the data.

The data for this study come from four sources, namely. Data from students through questionnaire, written exercises, oral presentations and observation.

3.2 Aims of questionnaire, written and oral work

A questionnaire was administered. It aimed at elucidating the respondents' point of view as to the importance of English in their study; the possibility of achieving scientific and technological communicative goals without knowledge of English.

A written exercise was administered to the same 200 samples. The exercise was later done in groups and presented orally with the participation of every member of the group, to demonstrate mastery of subject matter as well as fluency and competence in the English language.

3. 2 .1 Questionnaire

Q1: Effective Communication in science and technology can be achieved without the knowledge of the English language.

Table 1

Answers Informants	No	Yes	Total
Anglophones	85 85%	15 15.5%	100 (100%)
Francophones	12 (11.7%)	88 (88.2%)	100 (100%)
Total	97 (48.5%)	103 (51.5%)	200 (100%)

Table 1: Reported on the possibility of effective communication in science and technology without the knowledge of English. (51.5%) of the respondents believe that effective communication in science and technology is possible without the knowledge of English. 85 % of Anglophones as opposed to 48.5% of Francophones thought communication in science and technology would not be effective without knowledge of English.

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Q2: I consider the English language very important in the study of technology, mathematics, physics, biology, and chemistry. (Choose)

Table 2

Informants	**Mathematics (represents courses to do with <u>figures)</u>** **Yes**	**No**	**Total**
Anglophones	48 96%	02 04%	50 100%
Francophones	01 02%	49 98%	50 100%
Total	49 49%	51 51%	100 100%

Informants	**Biology (represents courses to do with <u>words)</u>** **Yes**	**No**	**Total**
Anglophones	49 98%	01 02%	50 100%
Francophones	30 60%	20 40%	100 100%
Total	79 79%	21 21%	100 100%

Table 2: Reported the relationship between the English language and the respondents' courses as perceived by the students.

It should be noted that for convenient sake, mathematics represents those subjects that often deal with figures and calculations, for example, physics and technology.

This table shows that 96% of Anglophones and only 02% of Francophones taking courses to do with figures considered English language important in their studies while 98% of Francophones and only 02% Anglophones said English was not relevant to their studies.

98%Anglophones and 60% Francophones taking science courses that have to do with words thought English was important in their studies, whereas 02% of Anglophones and 40% Francophones thought the contrary.

Q3. When a course is taught in English, what kind of problems do you have?

TABLE 3

Problem	Number	Percentage
Accent	06	3%
Rote memory	72	36 %
Understanding some parts	60	30%
Poor knowledge of English	62	31%
Total	200	100%

Table 3 aimed at identifying problems faced by students when a course is taught in English

Table 3 reported problems faced with when a course is taught in English.

The expressions below are extracts of the responses from students which were classified as in the table above.

- Understanding and writing
- Too much work
- Not much language problem
- Comprehension, scientific words
- difficulties of translation
- calculating
- Understanding the teacher's method
- The difficulties I face are not due to the language. It is usually the comprehension of phenomena.

3% of the informants said there are different accents and all those who speak English do not speak in the same way. 36% learnt by rote, 30 % could understand just parts of the lectures and 31% had problems with the language.

Q4 If you came across a scientific word in English do you think it would be easy to make out its meaning, example, cell-coating, cross-over, unit membrane, RAM (Random access memory)

Answer Informants	No	Yes	Total
Anglophones	20 20%	80 80%	100%
Francophones	70 70%	30 30%	100%
Total	90 90%	110 55%	200 100%

TABLE 4

Q4 aimed at assessing the understanding of words in context.

90% of the respondents said they would not be able to make out the meaning of words. (20% of the Anglophone informants and 70% of the Francophone informants)

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Q5 Can you follow the description of a process and carry out an experiment?
a) No I am limited to classroom work.
b) It is not possible because not all what is taught in class can be experimented.
c) All what I learn can be experimented if all the conditions and environment are suitable.

Table 5

Q5 aimed at assessing mastery of subject matter.
Table 5 reported that 6% of Anglophones and 47% of Francophones said sometimes. They believe that if the conditions are favorable then what they learn can be put into practice.

Answer Informants	Sometimes	Not always Not all can be put into practice	No	Yes	Total
Anglophones	06 6%	12 12%	/	82 82%	100 100 %
Francophones	47 47%	32 32%	20 20.1%	01 1.1%	100 100 %
Total	53 25.5%	44 22%	20 10%	83 41%	200 100 %

12% of Anglophones and 32% of Francophones said not always. No Anglophone said No, while 20% of Francophones said No.82% of Anglophones said they could follow the description of a process and carry out an experiment while 0.1% of Francophones said they could not. It also shows that 12% of Anglophones and 32% of Francophones think that not everything they learn can be practiced.

Q6. Can you make an oral presentation of an experiment you carried out in English?
a) No
b) Yes.
c) Yes, but….. (Explain).

Table 6

Answer Informants	No	Yes	Yes, but…	Total
Anglophones	/ 	89 89.2%	11 10.7%	100 100%
Francophones	47 47.4%	26 25.5%	27 27.1%	100 100%
Total	47 24%	119 60%	38 19%	200 100%

Table 6 reported competence in spoken English. .

This table shows that no Anglophones said No, while 47.4% of Francophones declared. they could not. 89.2% Anglophones claimed they could while 11% said they could, but added a condition.26% of the Francophones claimed so too, while27% said but it would be difficult to express themselves in English.

Q7

a) I am an Anglophone and so I do not need English in my studies

b) I am a Francophone and so I need English in my studies.

c) Although I am an Anglophone it will be advantageous to learn more English.

d) I am a Francophone; I see no reason why I should learn English.

Informants	Number	Total in Percentage
I am English-speaking, I do not need any more English	/	/
I am French-Speaking, so I need English for my studies.	40	20%
Although I am English-speaking, it will be advantageous to learn more	80	40%
I am French-speaking but I see no reason why I should learn English	80	40%
Total	200	100%

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TABLE7 reported the attitude of informants towards English.

As shown in the table,20% of Francophones would like to learn English,40% Anglophones believe that although they are English-speaking, it would be advantageous to learn English and 40% Francophones do not see the need to learn English.

The table reveals that all Anglophone informants believe that English is important.

Q8This year how many courses do you have in English and how many in French?

Q8 assed the bilingual nature of the university as far as lectures are concerned.

The responses were either 8 in French and 4 in English or 7 in French and 5 in English or 9 in French and 3 in English. Considering the proportion of the French-speaking population to that of the English–speaking population, we believe this is proportionate enough in a bilingual university.

3.2.2 Written work and presentation topics.

3.2.2.1 Interference of French

Expression	**French influence**
At level of the mouth	Au niveau de la bouche
By the aid of tongue and saliva	Al'aide de langue et de la salive
In day those exchanges	En journée ces exchanges.....
put into evidence the release of oxygen by green plants	metre en evidence… .
All the green plants are characterised by gas exchanges	Toutes les plantes vertes sont caractérisées par les changements en gaz
In the second tube, plant is also died because ----.	Dans le deuxième tube la plante et déjà morte
In the third there is not absorption.	Dans la troisième il n'a pas d'absorption
------*Capable to past through the* ---.	Capable de passer par…….
A human dentition is form of ---.	La formule dentaire humaine est composé de
The crown is covered by	Courone est Couverte par
At end, we came.	A la fin
Thus crown is made by one or more small parts.	Donc, la courone est composé de
It is constituted by ---	Elle est composé de----
Endly, we say that---.	En fin
Tooth behave---	La dent se comporte…
In summary, the digestive system is constituted by ---".	En résumer

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where dentine is found in a tooth?	Où trouve-t-on la dentine ?
His structure for summarize	La structure, En résumer
'*After living the stomach,…*' .	Après avoir quittée l'estomac ---'.
After we recover the tube of funnel---.'	Après nous couvrons le tube de l'entonnoir
'*Write an experiment*'	Decrier une expérience',
'To realise this',	Pour réalis
The energy is derived from the sun	L'énergie derive du soleil

3.2.2.2 Common grammatical features identified

Table 8-Vocabulary

Informants	Good	Bad	Total
Anglophones	85 (85%)	15 (15%)	100 (100%)
Francophones	12 (12%)	88 (88%)	100 (100%)
Total	97 (48.5%)	103 (51.5%)	200 (100%)

Table 8 shows the performance of students in a written work in the area of vocabulary.

85% of Anglophones and 12% of Francophones came up with less than 3 vocabulary items wrong I the written work.

Table 9- Preposition

Informants	Right	wrong	Total
Anglophones	95 (95%)	05 (05%)	100 (100%)
Francophones	40 (40%)	60 (60%)	100 (100%)
Total	135 (67.5%)	65 (32.5%)	200 (100%)

In the area of prepositions, table 9 reveals that 60% of Francophones have problems as contrasted with the 05% of Anglophones.

Table 10-Pronoun

Informants	Right	Wrong	Total
Anglophones	100 100%	00 00%	100 (100%)
Francophones	95 (95%)	05 (05%)	100 (100%)
Total	195 (97.5%)	05 (2.5%)	300 (100%)

Table 10 shows that 100% of the Anglophones have no problem with pronouns while 5% % of Francophones have problems

Table 11-Article

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Informants	Right	Wrong	Total
Anglophones	95 (84.75%)	5 (15.25%)	100 (100%)
Francophones	15 (15%)	75 (75%)	100 (100%)
Total	110 (55%)	80 (40%)	200 (100%)

Table 11, as revealed in the exercises given, shows that75% of Francophones and 15.25% of Anglophones have problems with the use of articles.

4 Discussion and recommendations

4.1 Analyses and description

4.1.1 Questionnaire

Table 1: Reported on the possibility of effective communication in science and technology without the knowledge of English. (51.5%) of the respondents believe that effective communication in science and technology is possible without the knowledge of English. They may perhaps be limiting their argument to the idea of language having to do with words only ignoring that people's need for mathematical language increases as science and technology develops. Table 2 reflects this assumption.

Table 2: Reported the relationship between the English language and the respondents' courses.

It should be noted that for convenient sake, mathematics represents those subjects that often deal with figures and calculations, for example, physics and technology. This table shows that 96% of Anglophones and only 02% of Francophones doing courses to do with figures considered English language important in their studies while 98% of Francophones and only 02% Anglophones English was not relevant to their studies. 33.3% of Anglophones and 80% of Francophones doing biology consider English language important in their studies.

98%Anglophones and 60% Francophones doing science courses that have to do with words thought English was important in their studies, whereas 02% of Anglophones and 40% Francophones thought the contrary.

This study brings out language as a means of communication by words signs or symbols. From here a distinction has to be made between the place of the English language and the French language. If the students say English is just another language in the area of science and technology, it is the reason why the study is important. Examining this response closely, the answer seems logical. It follows that English has no special status in the teaching and learning of science and technology. This seems true on the surface basis as the influence or impact of English on other subjects or disciplines can only be seen with time and exposure to situations and experiences. Montgomery (2004) remarks that all over the world English has become a lingua franca; in the science world eighty percent of the science published in journals is in English. Monaskyrsky (2001) remarks that it has always been for the reason of solving a problem in the area of science that the mathematician has been set to work. In the course of looking for a solution to a problem a new mathematical theory is created. The problem to be solved is in the area of science and technology. When a problem is solved in these domains there is a theory that follows. This theory leads to many questions and the mathematician is back to work again. 85 % of Anglophones as opposed to 48.5% of Francophones thought communication in science and technology would not be effective without knowledge of English. They seem to acknowledge the fact that the English language is important in their studies and that English is not just any language. This is because it is seemingly emerging as a problem-solving language.

Table three shows that there is need to reinforce the teaching of English for science and technology in the university. Table 3 aimed at identifying problems faced by students when a course is taught in English

The expressions below are extracts of the responses from students which were classified as in the table above.

- Understanding and writing
- Too much work
- Not much language problem
- Comprehension, scientific words
- difficulties of translation
- calculating
- Understanding the teacher's method
- The difficulties I face are not due to the language. It is usually the comprehension of phenomena.

3% of the informants said there are different accents and all those who speak English do not speak in the same way. 36% learnt by rote, 30 % could understand just parts of the lectures and 31% had problems with the language. The extracts reveal some interference in language usage, French being the dominant language.

Table 4 is a confirmation of the lack of seriousness in the teaching of EST. If you came across a scientific word in English do you think it is easy to make out its meaning, example, cell-coating, cross-over, unit membrane, RAM

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(Random access memory)"? 90% of the respondents said they would not be able to make out the meaning of words. (20% of the Anglophone informants and 70% of the Francophone informants)

There are certainly some English words which are used in English but whose meaning is not understood for example, 'coating' something: the outer part of a seed is referred to as 'coating', or one can be asked to coat an object. The original meaning of coat comes to mind. It is worn as overall which covers or protects a person. If something has to be coated, it means that it has to be covered. The expression - 'cell - coating' in biology has something to do with covering. This meaning imprints a mental picture of the word in. This does not cancel the fact that technical words exist. Technical words which have nothing to do with the English language have a name in English. They are nouns. They cannot be explained just as some nouns cannot be.

Some proper nouns like, names, for example are just names with no other meaning. These nouns therefore, should be treated as nouns.

There is a danger that some words and expressions in English are memorized and used without understanding. These words and expressions need clarification because knowledge of their meaning could lead still to more investigation and probably more discovery.

This contradicts Brook et al. (1984) who cautions that, science as a form of knowledge has its own concepts and therefore a language of its own. Learning science is learning its own language.

This statement implies that science should be studied in isolation from other subjects, which is contrary to what this work prescribes. The aim of the work is to identify the place of the English language in the world of science and technology and integrate the two because the study sees them as complementing each other. Separating them might be restricting the learner from using language freely. In other words, such a move could narrow the learner's horizon and even affect his progress in his field of studies.

Students widen their horizon if scientific and technical words are given some attention by teaching them as used in their scientific, technical and ordinary usage rather than ignore the idea. The knowledge of the meaning of words will only help to improve memory. The university is not out to fashion half-baked scientists. Competent scientists should be persuasive, convincing and eloquent. Tables 5 and 6 reveal that the students are devoid of these essential qualities.

Table 5 reported that 6% of Anglophones and 47% of Francophones said sometimes. They believe that if the conditions are favorable then what they learn can be put into practice.

12% of Anglophones and 32% of Francophones said not always. No Anglophone said No, while 20% of Francophones said No.82% of Anglophones said they could follow the description of a process and carry out an experiment while 0.1% of Francophones said they could not. It also shows that 12% of Anglophones and 32% of Francophones think that not everything they learn can be practiced.

Q6. Can you make an oral presentation of an experiment you carried out in English?

Table6 reported the competence of respondents in the area of spoken English.

89% of Anglophone informants said 'yes', 11% said "yes", but it would be difficult to express themselves in English. 47.4% of Francophones said 'no',26% said'yes', while27% said but it would be difficult to express themselves in English. As can be seen from the above statistics, most Anglophones claimed that they can make an oral presentation in English whereas most Francophones thought the contrary. It can be seen that even Anglophones are not quite sure of their competence in English as they say "yes…but…"This shows that there is a need for oral skills as it is important for students to be able to express themselves in this language which is fast becoming the language of science and technology as well as the language of international seminars and conferences. Students may one day find themselves in a situation where they will need to present papers at conferences or seminars where English is the medium of communication. This is to emphasize the point that English is a useful language.WWW Oxfordenglish.net. considers English as a passport to easy and successful worldwide Communication as it is the international language for business, science and technology.

It is important therefore to come up with a well-defined program for the teaching of EST as suggested by Ngaba (1990:4) who points out the importance of designing a special programme for students studying agriculture technology and makes suggestions as to how to go about this. This is reinforced in the words of Calin et al. (1995: 49) <<…thus the English language continues to grow with the development in science and technology>>. It is unfortunate that some of the Francophone students do not yet realize the importance of English as seen in table 7 which reported the attitude of informants towards English.

As shown in the table, 20% of Francophones would like to learn English,40% Anglophones believe that although they are English-speaking, it would be advantageous to learn English and 40% Francophones do not see the need to learn English.

Q8 This year how many courses do you have in English and how many in French?

Q8 asses the bilingual nature of the university as far as lectures are concerned.

The responses were either 8 in French and 4 in English or 7 in French and 5 in English or 9 in French and 3 in English.

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Considering the proportion of the French-speaking population to that of the English–speaking population, this is proportionate enough in a bilingual university.

4.1.2 Written work and oral presentation

From this description of the interference in the learning of English in the Faculty of Science, it can be concluded that the students' proficiency in English is influenced by French due to the historical and linguistic background. French is a dominant source of interference reflecting the dominance of the language in the country and the faculty in particular. This does not end out of the classroom, but is carried into the classroom where students find it difficult to sustain a discussion in good English. This might be the reason for the emergence of the newly found brand- fr-anglais. French words are used in spoken English as if they were part of the English vocabulary. It is not uncommon, for example, to hear an Anglophone student say, we have "formation bilingue" now, when he means to say that they have a bilingual training course. They also talk of "evaluation" instead of tests, or assessments. Some of them might not even be aware of the English expression for "formation bilingue".The type of bilingualism in the faculty also favors this kind of situation where English and French are spoken by the teachers. There are students who only speak French and others who only speak English. The implication is that this situation makes it difficult for some students to follow up courses and so they have to resort to other means by meeting classmates to explain in the language they understand. In the course of translation, both languages are used and so the student who has the problem goes off with the blend. Kouega (2003b) describes this mixture as Camfranglais which may be interpreted as Cameroon French/ English language.

This means that grammatical rules are either ignored or are not mastered as they are applied differently in both languages. Vocabulary is a mix- up of French and English as seen in appendix one and two.

Articles play different roles in English and in French, hence

At level of the mouth is translated as 'Au niveau de la bouche'.

In French, there is no article between 'at' and 'level'. In English it is 'at the level of the mouth.

By the aid of tongue and saliva is a direct translation of ' par l'aide de langue et salive'.

' In day those *exchanges*…'.is translated from French ,which is 'En journée…'. *ces exchanges*

Where articles are necessary in English, students leave them out since they are not sure when to use them as seen below:

In the second tube, plant *is also died because* ----. 'Dans le deuxième tube la plante

est déjà morte'

The definite article before plant is omitted.

Thus crown is *made by one or more small parts*. 'Donc, la courone est' *composé de… .*

In a simalar way, 'the' before 'crown' is omitted.

To realise this, we put in jar. The countable article 'a' is omitted.

After we recover the tube of funnel. Nous recouvrons le tube de l'entonnoir. There is supposed to be an article 'the' before funnel.

'The energy is derived from the sun. 'The question is where is energy derived from?' In French the answer is 'L'énergie derive du soleil'.---------

The evenement which is produced…….. L'évènement qui se produit……The phenomenon that occur

Grammatical structure is also influenced by French.

' plant is also died because ---'. la plante est déjà morte… . The verb to be in the third person is used as in French.

' *Put into evidence the release of oxygen by green plants'* is a direct translation from French. 'Metre en evidence…' Which is supposed to mean 'show (proof) that…')

' ------*Capable to past through the* --- '. Capable de passer par…

Word for word translation to mean '…capable of passing through…'.

'The crown is re-covered by... ' la Courone est recouverte par…

In French 'by' is used whereas in English the preposition is 'with'.

Endly, we say that---. This means 'finally' and translated verbatim.

Tooth behave--- La dent se comporte…The word behave is the wrong word. It should be *functions*----.This is as a

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result of translating word for word as 'behave' when translated into French is 'se comporter'.

'*In summary, the digestive system is constituted by…* or '*for summarize* …'. This is when the French expression '*en* or *pour* résumé' is translated word for word. The preposition is '*to'* summarize or as a summary…, depending on the context.

'After living the stomach, …', In French, 'Après avoir quittée l'estomac ---'. (spelling/pronunciation) leaving.In English it is simply, 'When it leaves the stomach'.

Write an experience- which in French is 'Decrier une experience'. Since 'write' in French is 'Ecrire' and describe is decrier, this could have influenced the spelling and the word itself. Experiment in French is 'expérience', the reason for the confusion.

To realise this…, in French it is *' Pour réalisé which actually means 'to achieve this, … .'* This confusion is due to the fact that the word exists in both languages. *After we recover the tube of funnel---.* 'after*'* is wrongly used because of the influence of French. Après nous couvrons le tube de l'entonnoir. This is supposed to be followed by the event that has taken place.

*Crown, the white part permit to… .(*allows) This is the influence of French. The word 'permit' exists in French and English but they are not used in the same way. Permit does not take 'to' immediately after it as is the case in French.

But is obvious that foods that we put in our mouth are not transported in their initial form until toes and brain- up to the toes. When 'up to' in the context above is translated into French it is," jusqu'à "and in French it equally means until.

The changement of the temperature

This is supposed to be the change in temperature. In French it is 'le changement de température'.

Pass the night in the tubes. Translated verbatim is , 'Passer la nuit dans les tubes.' This actually means to leave it the tubes for a night.

The event which is done. This means the activity which takes place which in French is, 'l'evenement qui se passé' There is generally a problem in determining whether to use the verb to make or to do and to happen or take place.

Another problem is that of punctuation. Students do not seem to know the difference between a question and a statement as in the case of a topic. Where dentine is found in the tooth? This is translated verbatim- Où trouve-t-on la dentine? In English this is a statement and does not require a question mark. Otherwise it should read-'Where is the dentine found'?

Each part of these three has their *composan*t. This is a French word which means composition and the students know what the word means but are influenced by French.

The word responsible in French is used as a noun, hence the confusion '*roots are the responsible…'* instead of roots are responsible for ….

Each major part is *made by*… This is supposed to mean 'consists of, made of'. The French translation is 'composé de'. *Crown, the white part permit to(*.allows) This is the influence of French. The word permi exists in French and English but they are not used in the same way. *His structure for summarize* …. In French it is 'La structure, en résumer…' All nouns in French are either masculine or famine. Since 'tooth' is masculine, the translation according to the students is 'his structure' instead of 'its structure'. But is obvious that foods that we put in our mouth are not transported in their initial form *until toes and brain- up to the toes.French*- jusqu'à roots are the responsible for the absorption of nutrients (mineral salts and water) needed by plant; The event which is done---the activity which takes place…l'evenement qui se passé.

In French, adjective forms must agree with the nouns, which is not the case in English. Thus, the changes in the different temperatures is translated as Les changements dans les températures différentes and every year – toutes les années.In the same manner, the adverb"still" is translated as *again* which is *encore* in French, in the sentence- *the plants are again alive* to mean, "the plants are still alive".

Another problematic area is pronunciation. Francophones find it difficult to pronounce the "s" at the end of words, not only in nouns but in all aspects as observed in their oral presentation- thus, the "s" in the following words are not pronounced; toes, allows, plants ,depends, covers, protects, provides, brings, years, needs, just to name a few. This is due to the influence of French which does not vocalize the last consonant in most words.

4.2 The Anglophone situation.

Interference seems to play a major role in the mastery of the English language by Anglophones in the same institution. Not much time will be spent on this as it requires a lot of research which constitutes a topic on its own for research. The aim of this exercise was to find out how well they could express themselves in the English language. The topic was: Do you think a good knowledge of the English language is important in the understanding of science and

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technology? The errors identified in the written and spoken exercises are to be associated with two factors- the interference of either pidgin English or French and the display of non-mastery of the language. These few examples illustrate this point: French words are being coined into English words. The word 'make' which is *faire* in French is translated in sentences like; we have been forced to make translations .The word evaluation is used to replace test as in; *when we have evaluation, we write in English.*
Pidgin English, which could be described as the mother tongue of Anglophone students in the University of Dschang has its own impact on the English the students speak and write. From the observation made, it is worth remarking that very few Anglophone students can sustain a discussion in good English. In their private study groups, most of the time, if not all the time, they discuss school matters in Pidgin English. Their inability to write or speak English well could be explained by the fact that it is not easy to code- switch, given the fact that their vocabulary is limited due to little exposure to the language. Consider this example identified in the course of observation; "If we are not careful, it will not give a sense". This is literal translation from Pidgin English, meaning that we must be careful as the meaning may be distorted or, we must be careful, otherwise, the meaning may be distorted.

It can be seen that the situation in a bilingual university is quite different from that of a monolingual university. The implication is that the course program for Anglophones will be quite different from that of Francophones. The importance of conducting a needs analysis before designing a course cannot be underestimated in EST. This calls for specialist knowledge in the target subject or who have limited expertise in the field of EST (Hutchinson and Waters 1987). This will not only mean determining to what extent, in what ways and for what purposes students will use English in their university program and later in their jobs, but also taking into consideration their linguistic background. This becomes more complicated as there is no forum to discuss such issues. The English Department recruits teachers to teach English and nothing but English. These English teachers are sent to teach English in other faculties without a specific program to follow. They teach grammar, vocabulary, reading comprehension from any sources. There is no orientation, no training, no support and no collaboration (Porcaro 2013) .

This article brings out the implications of teaching EST in a bilingual university with English as one of the official languages. There a lot to be done. Anglophones and Francophones are two groups of learners, different in linguistic background as well as linguistic competence. Therefore, their needs differ. They cannot be lumped up in the same classroom for the teaching of EST. Guest (2009) suggests that needs should be derived from common sense and experience which could be adapted. A bilingual training specialist in English could tailor his material to the needs of Anglophones and Francophones drawing inspiration from experience and common sense.

5 Conclusion

Bell (2002)'s proposal of three Cs is worth considering by EST teachers to successfully engage with students:

Curiosity

EST teachers should be interested in the subject area and actively.The should seek to learn more about it. The science and technology teacher cannot be talking of inventions and discoveries if he is not current with the advances in science and technology. The language he teaches stems from them.

Collaboration

The EST teachers should consult with subject matter specialists. The science and technology teacher is not science and technology. He therefore has to meet a specialist.

Confidence

The EST teachers' confidence will grow as they understand their role, learn more about the subject matter, and work with specialists in the field.

Considerable preparation is needed before students are ready to approach and manage their work. In order for the EST teacher in a bilingual university to effectively manage Francophones and Anglophones, some strategies which could be used for integrating science and English for both Francophone and Anglophone learners have to be developed. These strategies will depend on the needs of students and the teacher's involvement in the teaching of English for Science and technology.

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