

## Adrar University Civil Engineer's Handicap vis-a-vis English Academic Writing

Doctorate Student: Abdelkrim Makhloufi, The University of  
Adrar, Faculty of Arts and Languages,  
amakhloufi22@gmail.com

Professor Bachir Bouhania, The University of Adrar, Faculty of  
Arts and Languages, bouhania@yahoo.fr

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### Abstract

Since English has become the worldwide lingua franca of science and technology, university teachers and researchers found themselves bound to look for a way to cope with this situation especially in a country like Algeria in which French is predominantly the language of higher education and scientific research as well. This paper sheds some light on the language handicap which civil engineering researchers encounter when publishing in English. The aim of this paper is to draw attention to the relationship between inner and outer circles of English users<sup>11</sup>. The ultimate goal is to get a thorough needs analysis to develop an ESP course for future engineers. Triangulation of methods was ensured during data gathering. Samples of researchers' manuscripts were analysed during the writing process.

**Keywords:** Civil engineering; Adrar university teachers; English writing handicap; needs analysis; ESP.



### Introduction

The need to catch up with the international standards in terms of scientific publication in English has long been neglected in the Algerian higher education and scientific research. However, issues related to academic publishing in non-English speaking countries is of paramount importance<sup>2</sup>.

The driving needs for multilingual authors to publish in English journals, on the one hand, and the challenges they faced to cope with the burden of writing in English, on the other hand, have generated new concepts and disciplines to deal with the drawbacks of having English as the international language of scientific publishing.

Kachru's concept of the three English circles determines clearly the advantages that native speakers have over their non-native speaker counterparts<sup>3</sup>. According to him<sup>4</sup>, the first circle includes countries in which English is the primary language of the majority of the population; the second category embraces multilingual countries in which English is used as an additional intra-national and international medium of communication. The "expanding circle" is the third one, and English there is a foreign language in competition with French<sup>5</sup>. The relationship between the three circles has been the focus of considerable attention<sup>6</sup>.

Flowerdew investigated the situation of a group of Hong Kong scholars vis-à-vis English writing for publication<sup>7</sup>. He revealed that the majority of scholars had problems with wording, expressing ideas, providing arguments, in addition to mother tongue effects. Despite the fact that Hong Kong belongs to the outer circle, academics there felt disadvantageous to their native peers<sup>8</sup>.

Another instance comes from the expanding circle of English where Lillis and Curry tackled the case of researchers from three countries, Slovakia, Hungary, and Spain<sup>9</sup>. Reward systems, often, codified in terms of: salary, funds, and bonuses made researchers under high pressure to publish in English which is frustrating and time consuming for writers.

Being trapped between the increasing needs to publish in English and the lack of the necessary competence, multilingual scholars tended to improvise their own solutions<sup>10</sup>. These solutions need more focus and investigation<sup>11</sup>. From this perspective, Lillis and Curry advocated what they referred to as "literacy brokers,"<sup>12</sup>; that is, the people that writers call for help during manuscript production.

English is the second foreign language in Algeria; thus, this last is a part of the expanding circle of English users<sup>13</sup>. French is still the language of higher education. The English knowledge researchers had got during their studies was quite poor and cannot meet their needs when writing articles; hence, this task is rather challenging for them<sup>14</sup>. This study strives to trace the relationship between the inner circle and the expanding circle in the Algerian context.

This study considers the civil engineering teaching staff at Adrar University as a sample. In this administrative department in the south of Algeria, the building sector and civil engineering major stem their relevance from the local contextual economic environment and job market.

## **I The Purpose**

The aim of this research is to relate macro-level effects of English medium publishing to micro-level literacy practices in the expanding circle<sup>15</sup>. Then, a thorough writing needs assessment is carried out to handle the teachers' handicap and help design a syllabus for civil engineering students.

## **II Research Problem**

To attain the aforementioned aims, engineering teachers were chosen as a sample. The research problem was broken up into the following questions:

- What are the challenges that civil engineering researchers are facing when writing in English?
- How do they manage to overcome these challenges?
- What are the methods and tools which might be appropriate for carrying out an ESP course?

## **III Research Methodology**

Several methods were developed to tackle the needs analysis investigation such as: questionnaires, analyses of authentic written texts, structured interviews, observations, informal consultations, etc.<sup>16</sup> Among those methods, it was opted for:

questionnaire survey, structured interviews, and some unstructured interviews. Triangulation of methods was used in order to get more reliable results.<sup>17</sup>

Questionnaire survey was the main tool in this research. It was conceived after carrying out an interview with the head of the department. It was divided into seven categories; personal information, language abilities, learning strategies, study skills, interests and importance, teaching methods, and materials respectively. Unstructured interviews were also done with some teachers in informal settings

#### IV Sample Description

This research targeted the teaching staff of civil engineering (18 teachers two of whom are females). The ages of the informants varied between 26 and 60 years old; only three participants were more than 50. All of them studied civil engineering except one teacher who studied architecture. Four of them hold master degree; five had magister (M.A degree), five others were doctors, and one was an engineer.

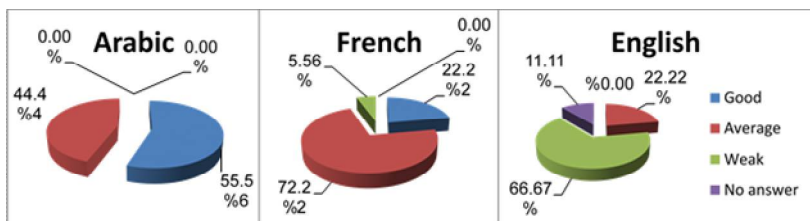


Figure 1 : Languages' degree of mastery

#### V The Results

##### 1 Languages and their Degree of Mastery

Three languages were mentioned: Arabic, French, and English; three levels were cited in each column: good, average, and weak. The results were as follows: 55.56 % of the informants stated that they were good in Arabic, 44.44 % had an average level, and nobody was weak (0%). Concerning French 22.22 % affirmed having a good level, 72.22 % had an average level,

whereas 5.56 % were weak. As for English, 66.67 % agreed on their weakness, while the rest (22.22 %) asserted that they had an average level (two participants did not answer this question).

## 2 Motives for Learning English

The following set of questions tackled the driving motives behind learning English .

### a. Question n° 1

The participants were asked if they had any desire for learning English, and of course, their responses were entirely positive toward learning English (100%).

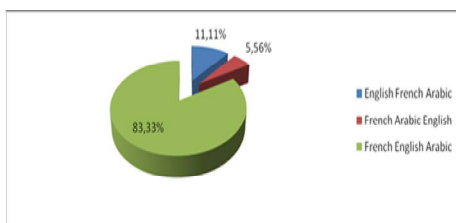
### b. Question n° 2

The enquiry concerning the stimuli behind learning English resulted in different responses. Yet the teachers agreed on its relevance as: a language of latest research, the utmost medium of communication in international conferences, and the agreed lingua-franca abroad.

### c. Question n° 3

83.33 % answered that the languages they used to be acquainted with the latest research were – by order of importance – as follows: French, English, and then Arabic. 11.11% affirmed that English was the first one, then French and finally Arabic. Yet only one teacher put Arabic the second in the order of importance after French (5.56%).

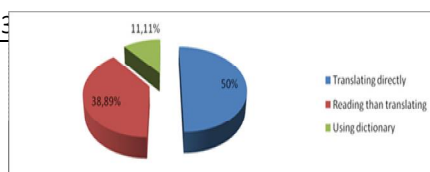
**Figure 2:** Languages' importance for the researchers to be acquainted with the latest scientific research.



### d. Question n° 4

Concerning the way they dealt with English texts, 50 % mentioned that they relied directly on online translation programs, 38.89 % resorted indirectly to translation programs. Whereas, 11.11% just guess the meaning.

**Figure3:** Researchers' reading habits of English texts



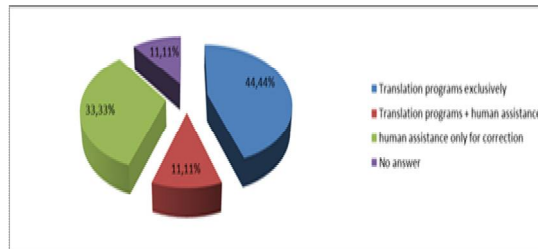
e. **Question n° 5 and 6**

Concerning the issue of writing in English, it was highly agreed upon and all the participants stressed the needs for writing in English (100%). And when seeking to know the reasons behind this desire, it was revealed that the need for publishing, and participating in international conferences were of equal importance. Only one teacher stated that he used English texts to prepare lectures.

f. **Question n° 7**

The inquiry about how they managed to write in English revealed that: 44.44 % leaned exclusively towards translation programs, 11.11 % joined human assistance to using translation programs, 33.33% searched for proofreaders after translating texts. Two informants provided no answers.

**Figure 4 :**  
Researchers'  
writing methods  
in English

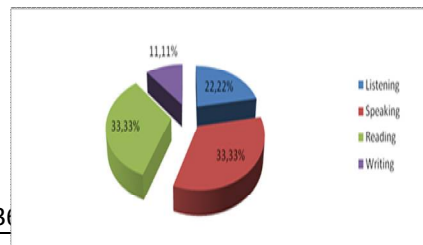


**3 Learning Strategies and Study Skills**

a. **Question n° 1**

33.33 % said that reading was the most important skill, the same percentage for speaking (33.33 %), 22.22 % chose listening, and only 11.11 % considered writing as the first one. 33.33 % classified writing at the bottom.

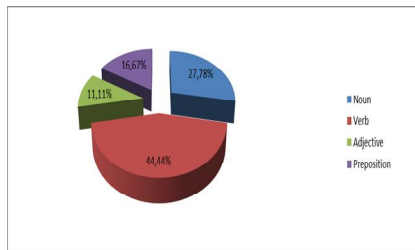
**Figure 5 :** Language  
skills 'importance for  
researchers



b. **Question n° 2**

The responses concerning the grammatical category which mattered to them more were as follows: verbs were the first by 44.44%, then nouns by 27.78 %, next prepositions (16.67 %), and adjectives were the last by 11.11 %.

**Figure 6 :**  
Grammatical  
categories which  
matter for the  
researchers



c. **Question n° 3**

A question was addressed to figure out the handicaps they encountered when learning English, and the responses turned around three main points: the lack of schools which fulfil their special needs, pronunciation difficulty, and the problem of discontinuity.

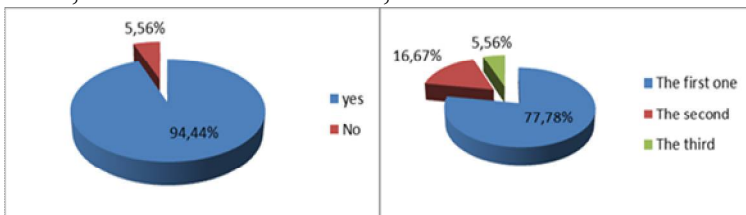
**4 Interest and Importance**

a. **Question n° 1**

Approximately all the respondents showed interest in affording time and money for learning English (94.44%) except one person who gave a negative response (5.56%).

b. **Question n° 2**

Learning English was the first one on the scale of importance for 77.78 %, the second for 16.66 %, and the third for 5.56 %.



**Figure 7:**The desire for learning English

**Figure 8:** English's grade of importance

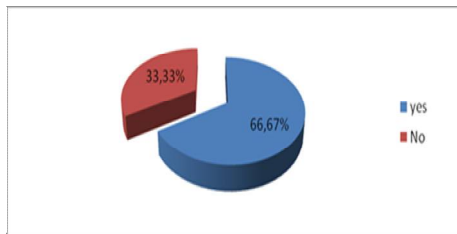
### Comments:

The results obtained from the two previous questions demonstrate that not all those who show interest in learning English (94.44%) put it in their utmost priority. Therefore, it is quite reasonable that the percentage of those disinterested in learning English equals that of those who put it in the third grade (5.56%). But 16.66% classified English in the second rank of importance in spite of their desire for learning it.

#### c. Question n° 3

In order to gauge their truthful desire for learning English they were asked if they had taken any private courses. The responses were: 66.67% declared that they had received private courses, and 33.33% asserted that they had not.

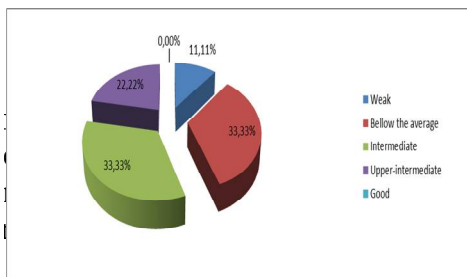
**Figure 9:** The researchers who had English private courses



#### d. Question n° 4

When the informants were asked to assess their English personal level the results were as follows: 22.22% stated that they had a satisfying level (upper-intermediate), 33.33% declared having an average level (intermediate), the same percentage was noticed for below average level (33.33%), and 11.11% agreed on being bad in English (weak).

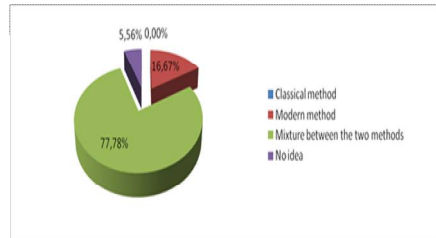
**Figure 10:** Researchers' self-assessment level in English





methods, 16.67% opted for modern tools, and 5.56% had no idea.

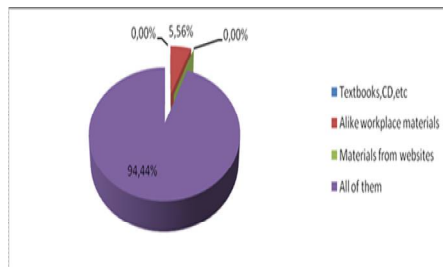
**Figure 11:** Researchers' preferred teaching methods



## 6 Teaching Materials

The last item considers teaching materials. Four choices were given and the answers were: 5.56 % chose using only guides and manuals, whereas 94.44 % suggested using a mixture of materials.

**Figure 12:** Researchers' preferred teaching materials



## 7 Researchers 'Improvised Writing Strategies in English

Engineers are people of action rather than of words<sup>18</sup>. Nevertheless, the writing driving needs impelled them to improvise their own solutions. Researchers deal with English writing as a puzzle to solve. For this reason, all possible solutions might be used during manuscript production.

### a. Online Translation Programs

The most common way used by researchers to write in English is through online translation programs. This method is quite efficient at word level and simple sentences, yet it has a lot of

drawbacks in case of complex sentences. To overcome this problem the researchers did not rely on one single program and they mostly intersected several ones (Google translation, Babylon, Systran, etc.). Despite this, some of them asked for “human aid” or “Net support” through some proofreading web companies to ascertain the final manuscript.

**b. Consult an Expert Helper**

This phenomenon is called “literacy broker” or “brokering activity”<sup>19</sup>. This term refers not only to the act of consulting an expert helper but also to all kinds of “literacy mediation” including: editors, reviewers, and English-speaking colleagues, who intervene in one way or another.<sup>20</sup> This technic was used by those who had the chance of knowing someone mastering English and could afford time for help. If the helper was well-versed in the subject matter, for instance: a discipline expert<sup>21</sup>, the translation process would go very smoothly and the outcome would be satisfying.

**c. Filling the Gaps Method**

The principle of this method is to find an English text, sentence or even a statement which has approximately the same idea that the researcher is trying to express. Then only the structure of the linguistic chunk is kept i.e. by exchanging the initial words by the appropriate words of the researcher (the words that expresses his own idea).

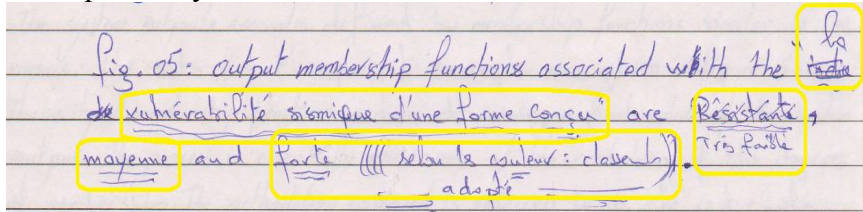
The example provided here shows an instance for the sentence level and the steps followed by the researcher.

Fig. 3: Membership functions associated with the reflectance of the inner walls are "dark", "medium ", "light" and "very light"

1/ This is the initial or the original sentence taken from its source context.<sup>22</sup>

Fig. 3: Membership functions associated with the reflectance of the inner walls are "dark", "medium", "light" and "very light"

2/ The highlighted part of the sentence is meant to be removed and replaced by the writer's words.<sup>23</sup>



3/ This is the first draft in which the writer's added words are still in French.

## VI Data Analysis

Having compared and contrasted the findings, several worth-mentioning points come out:

- The majority of the participants are aware of their weaknesses and show interest in learning English.
- To be acquainted with the latest research works, French is first and foremost the language of information; which means that researchers are still lagging behind in terms of being up to date with the new scientific publications. The Canadian Journal of library and Information Practice and Research states that in 2007: 4.94% of scholarly journals were produced in French, and 45.24% were produced in English<sup>24</sup>. Thus, Algerian researchers are more likely to be 4.94 % acquainted with the latest scientific publications.
- The good mastery of French if opposed to the weakness in English on one hand, and the driving needs to be up to date with the scientific research on the other hand demonstrate clearly the local effect of "the expanding circle concept of English language".<sup>25</sup>
- Translation programs are by far the medium of getting through to English written publications (nearly 90 % of the participants). Despite this, some researchers tried to guess the meaning of

words or use dictionaries instead because of the similarities between English and French in scientific words. Others knew the equivalent English terms in French, and tried to understand the meaning of the whole linguistic unit so that to avoid rendering each time.

- The overall agreement on the issue of writing in English is mostly due to the driving needs for publication to submit doctoral dissertations, or participate in international conferences.

- English writing is an exhausting and time-consuming task for researchers; therefore, it is impossible to achieve without human assistance in a way or another.

- In spite of the importance of writing, which has a great effect on scholars' academic lives<sup>26</sup>; the findings prove that the researchers' wants stress also the speaking and reading skills. Taking into consideration "the subjective nature" of wants<sup>27</sup>, these results can be better understood if the context of using each skill is known. The writing task can be realized in several ways and in an indefinable span of time; however, reading a piece of work or debating in a conference would be impossible if one lacked the spontaneous response at the very moment. This is why speaking and reading are more important for them if compared to writing and listening.

- The interest in affording time and money for learning English is better gauged if examined with those who already had private courses. That is, desires do not necessarily parallel actions; for instance, other factors might preclude them from achieving these wants. Busy schedules and the lack of ESP teachers in private schools discouraged some of them from pursuing taking these courses. This issue was strongly highlighted when they mentioned the problem of discontinuity in learning English.

- Researchers' self-assessment reveals their admission of having an average level in English. Yet, the efforts they made demonstrate that they had a considerable amount of language knowledge, and all what they needed is a kind of specific language support to use this knowledge.

- As for teaching materials and methods; they opted for using a mixture in both of them. This finding confirms that they focus

more on the end-product rather than the tool or the way of teaching.

## VII CONCLUSION

Having seen the English writing handicap civil engineering researchers suffer from several measures should be taken. Obviously, an appropriate course is imperative in this case; therefore, “the most challenging task here is to bring the right English language” to “the right professional” argues Millrood<sup>28</sup>. Also, an urgent "pedagogical support"<sup>29</sup> is of paramount importance for researchers to overcome these compelling needs. For instance, it can be short-term training for a better usage of dictionaries and translation programs.

Future perspectives of this paper can be preparing a glossary of the most widely used terms designed with regard to the local national context and the needs of engineers.

Finally, this issue shows clearly the international language tension in the so-called “expanding circle of English language”. Algeria belongs to the francophone area, yet the world-wide Anglophone dominance reverses the balance towards English. In order to enable civil engineers to take their turn in knowledge production the previous suggestions have to be taken into consideration to align along the worldwide standards.

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