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**Necessity of english for specific purposes (Esp) for the scientific community at belhadj bouchaib university (Ain-Témouchent).
The case of researchers at the department of sciences and technology**

**Nécessité de l'anglais sur objectifs spécifiques pour la communauté scientifique à l'université Belhadj Bouchaib (Ain-Temouchent).
Le cas des chercheurs au département de sciences et technologie**

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Abstract : *English has become the modern lingua franca in an economically, scientifically and culturally dominated world dominated by Anglo American countries. Therefore, any researcher must master English, at least to some extent, to reach international recognition and access relevant publications. English for Specific Purposes is here to serve researchers in science, technology, and business, but this is easily said than done. Mastering English is a challenge for many researchers in Algerian universities.*

Keywords: *Research, science, technology, a global audience, ESP, needs*

Résumé : *La langue anglaise est devenue la lingua franca moderne dans un monde économiquement, scientifiquement et culturellement dominé par les pays anglo-américains. Tout chercheur doit donc maîtriser l'anglais au moins dans une certaine mesure pour atteindre une reconnaissance internationale et accéder aux publications pertinentes. L'anglais sur objectifs spécifiques est là pour servir les chercheurs en science, technologie et affaires; mais c'est plus facile de 'dire' que d'appliquer. La maîtrise de la langue anglaise est un défi pour de nombreux chercheurs universitaires algériens.*

Mots-clés : *Recherche, Science, Technologie, une audience internationale, anglais sur objectifs spécifiques, besoins.*



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The need to teach English in Algeria springs from its prominent position as a global language and its capital role, especially in science and technology. The academic community aims to join the most developed countries and experience this worldwide competition, and this can be reached through enhancing the mastery of English. The Algerian academic community urges us to learn the powerful language of the majority and the future.

The importance of English language teaching has been witnessed worldwide since the end of the Second World War. As a lingua franca of the past century and the new millennium, English is a crucial means for acquiring access to the world's intellectual, scientific and technical resources. English has become a privileged means for international communication and business and stands as a prerequisite in the world of research and scholarship. The growing worldwide interest in English implies the need to improve the level of competence of Algerian researchers, who are undoubtedly affected by the process of globalization.

The academic community, including teachers and doctoral candidates of different disciplines embracing science and technology, computer science, and engineering, need the English language, mainly English, for Specific Purposes. two research questions are designed as follows:

- To what extent mastering English is a must for performing research?
- What are the procedures and strategies used to cope with such a situation?

These Questions are set to conduct this humble study based on the following hypotheses:

- English language is valuable and necessary to access relevant publications and reach a global audience
- The respondents are aware of the necessity of the language; therefore, they constantly apply the necessary procedures and strategies to improve their level.

This study will shed light on the importance of English for Specific Purposes and the language skills in performing academic tasks, including interacting with a global audience and reading and writing articles, besides scientific reports.

1. Historical background of English language

English has become the international lingua franca, Cook explained this in his quote: "Various terms have been proposed for the peculiar status of English, whether 'International English', 'Global English', or 'World English'- Recent discussion has preferred the term 'English as a lingua Franca English as a means of communication between native speakers of other languages" (Cook, 2008. P,191). This generally accepted outcome is due to several facts that can be headlined under two main headings: the geo-historical reasons and the socio-cultural ones.

The historical account reveals the movements of English around the world; the expansion of English is due to the pioneering voyages to the Americas, Asia and the antipodes. It continued with the 19th century because of the colonial development in Africa and the south pacific. These facts allowed the British Empire to control the seas during this era. Finally, the expansion of the language took a significant step when it was adopted in the mid-twentieth century as an official language by many newly independent states. The language demographic distribution is explained; it is represented in every continent and in islands of the three major oceans: Atlantic, Indian, and Pacific (Crystal, 2003).

The social-cultural feature is concerned with how people worldwide have come to depend on English for their economic and social well-being in many segments of life. If one goes back to history, one finds that Britain became the world's leading industrial and trading nation by the beginning of the nineteenth century. Its economic growth was beyond the reach of any other nation. Most innovations of the Industrial Revolution were of British origin. America is also concerned with innovations and developments overtaking Britain as the world's fastest-growing economy.

1.1. Importance of English in the field of research

English is the most widely spoken and taught globally; in fact, the language has been attributed several characteristics. First, it is the language of communication for people who do not share the same language; it is considered a lingua franca. Second, it is used in science, aviation, computers, diplomacy, and tourism. Third, it has become deeply rooted in the international domains of political life, business, entertainment, education, the media and communication. For example, five of the most extensive broadcasting in the world (CBS - NBC - ABC - BBC - and CBC) transmit in English reaching millions and millions of people worldwide. Moreover, the United States mastered the giant television and music industries.

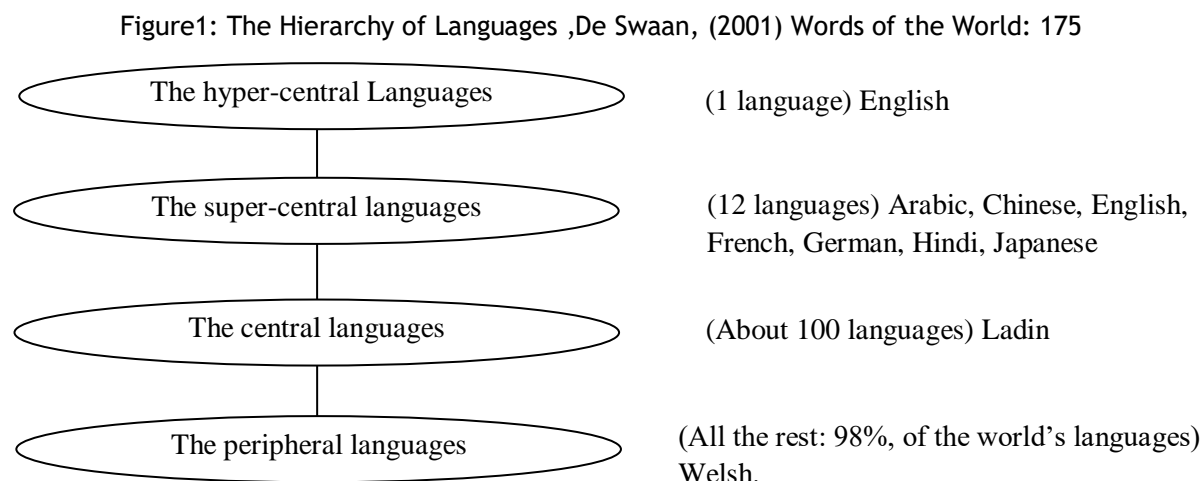
Above all, we must refer to the importance of English in science and education. It has become the modern lingua franca in an economically, scientifically and culturally dominated world dominated by Anglo-American countries. Therefore, any scientist must master English at least to some extent to obtain international recognition and access relevant publications. Although it is widely accepted that most new knowledge is of developed countries origin, Crystal (2003) has emphasized the importance of the English language in modern society. Indeed, this language has been an essential medium of academic publications. Therefore, even non-English speaking countries have achieved interesting discoveries or inventions; they should be published in the English language to reach international visibility and be readily accessible to the international scientific community. In this respect, Cook (2008) explained that English is highly required for scientific writing and reading, "English is a requirement for scientific writing and reading: Few scientists can make a proper contribution to their field without having access to English, either in person or through the translation of one kind or another." (P. 200) The new terminology of technological and scientific advance has an immediate impact on the language; tens of thousands of new words were added to the English lexicon.

The origin of Nobel Prize laureates also explains the above situation since 1910. The USA is at the top of the rank, followed by the UK. (383/132). Both of them are English speaking countries. This fact designated English language as the language of research. It has become the modern lingua franca and a target language to be learned since it is an open window on knowledge in different fields as physics, medicine, etc.

As it has been noted, English has become one of the most important academic and professional tools. It is increasingly recognized as a target language to be learned by the international community. Competence in English and its use signify a transmutation. It is considered a symbol of modernization, a key to expanded functional roles and an additional arm for success and mobility. Again, English embraces people from different countries; they needed to learn the hyper central language. Cook (2008) has explained this fact: "The reasons for acquiring the hyper central language are the global demands of

work; international business becomes difficult without English, and native speaker is one of the types of peoples that need to be communicated with" (Cook 2008, p.191).

Despite the super central languages as German, French, and Arabic, their use is limited to a specific goal and restricted to a given environment. Conversely, English has extended its scope outside the previous boundaries of the British Empire to a considerable surface of functions. According to Abraham De Swaan (2001), languages form a hierarchy, and English is at the top. The following figure shows this classification:



1.2. English for Specific Purposes

ESP refers to teaching a specific English genre to students with specific aims. Most definitions of ESP meet three fundamental topics: the nature of language to be taught and used, the learners, and the settings in which the two elements occur. Different ideas and points of view were labelled to ESP. Some scholars in the field have described it as the teaching of English for any purpose that could be specified; others (Hutchinson, Waters, Dudley Evans and St John) were more precise, considering it as the teaching of English for academic studies or the teaching of English for vocational or occupational purposes. On the other hand, Alsubie S. (2016) asserts that English for Specific purposes (ESP) is an approach to English language teaching. The language is taught for specific utilitarian purposes. Sifakis, N.C. (2003) claims that It is important to remember that the ESP domain is characterized by a wide diversity—different learners, different classes, different needs, different syllabi, and different teachers. While it is crucial not to lose sight of this diversity, this is the case in the research community, including teachers and students.

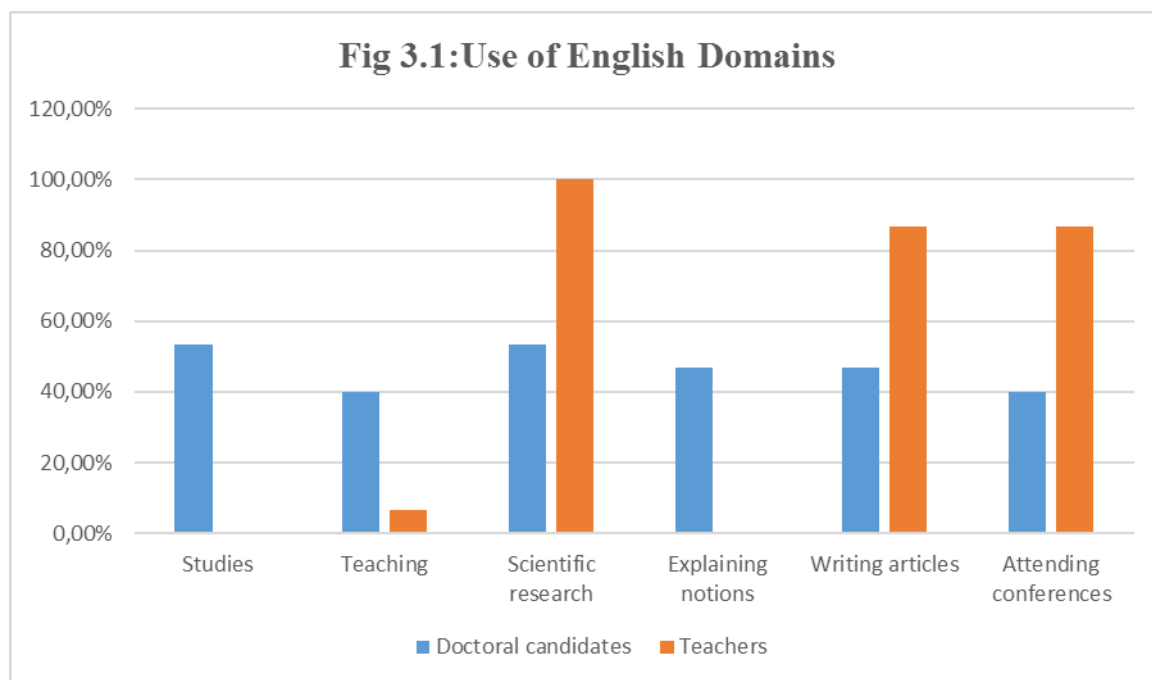
2.Method and tools

The Algerian scientific community is part of this world, and the need for English is not excluded; in fact, it is a primordial concern for all researchers from the expanding circle as Algeria, China, Russia etc. to master English to be in a constant relatedness with the most recent studies and findings. In return, they can share their investigations, experiments and analyses with the scholarly community over the world. In order to reach this target, mastering English is a must. Considering this fact, the researcher has explored the need for English for Specific Purposes. The population consisted of teachers and doctoral candidates from the Department of Science and Technology at Belhadj Bouchaib University (Ain-

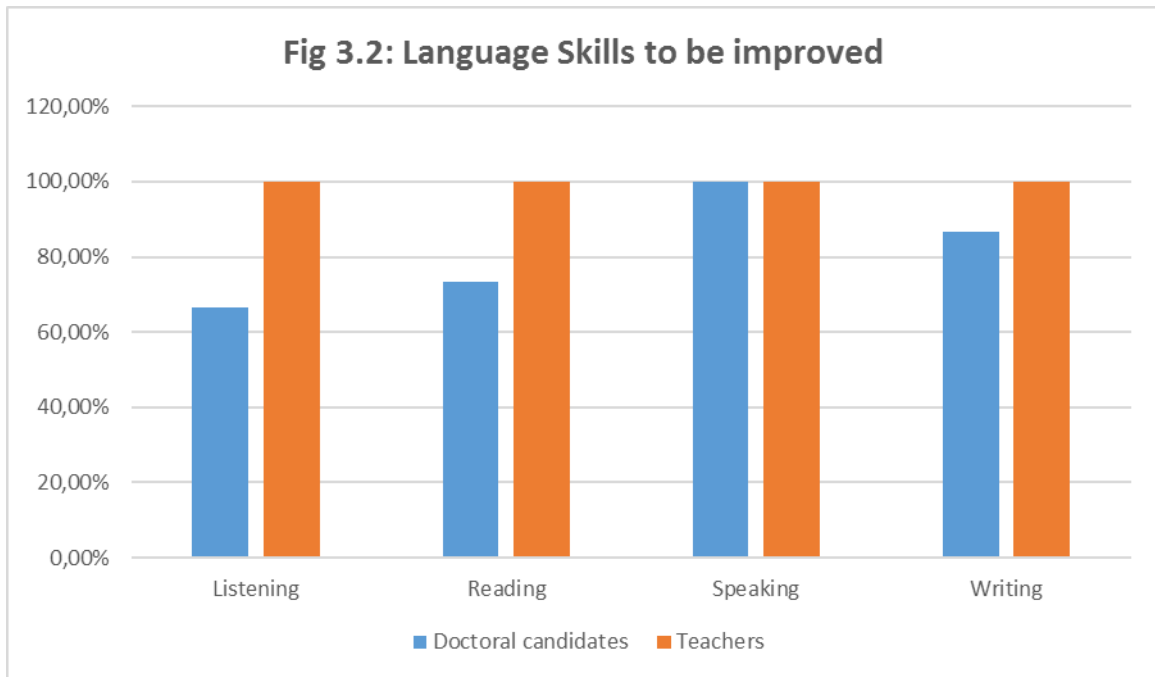
Temouchent). This investigation tried to answer two research questions mentioned above. A mixed-method approach includes a quantitative and qualitative method to deal with such problems. A conductive study will reveal facts about the research community at Belhadj Bouchaib University - Ain Temouchent. A questionnaire consisting of close-ended and open-ended questions has been submitted to 15 teachers and 15 doctoral candidates.

3- Results and Discussion

Algeria belongs to the outer circle, and English is considered a foreign language; therefore, there is a restricted setting where English is used. There is no other field except studies and research where we can interact in English. Accordingly, doctoral candidates use English in their studies and academic research; these domains have the highest rate, representing 53,33%. They also need English to write articles and attend conferences, and the rate is 46,66% and 40%, respectively. The majority of the respondents focus on academic purposes. The need for English is persistent; this is proved by the teachers who are doctors and still needs English, mainly to write articles and attend conferences; the result represents 86,66%, respectively. (See Fig 3.1)

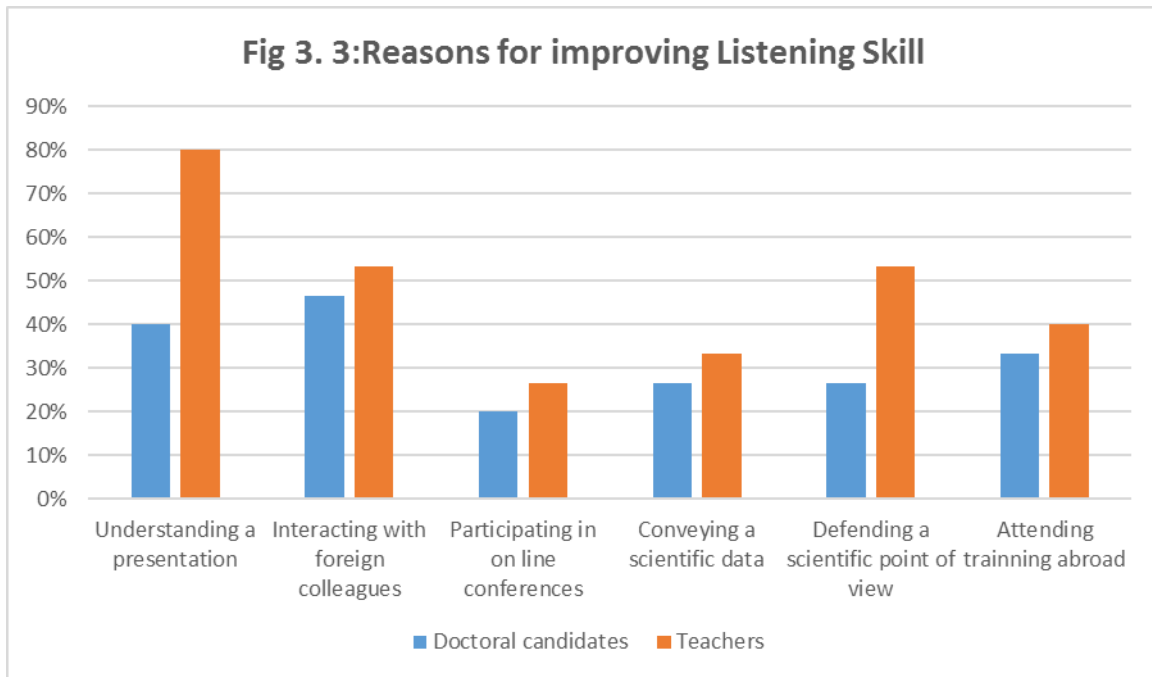


The persistent need for English leads the academic community to improve their level regarding the language's necessity and importance. The respondents mentioned their urgent need to enhance receptive and productive language skills: listening, reading, speaking, and writing. They are aware of their usefulness. The same case is valid for doctoral candidates with a slight difference in the rate (See Fig 3.2).

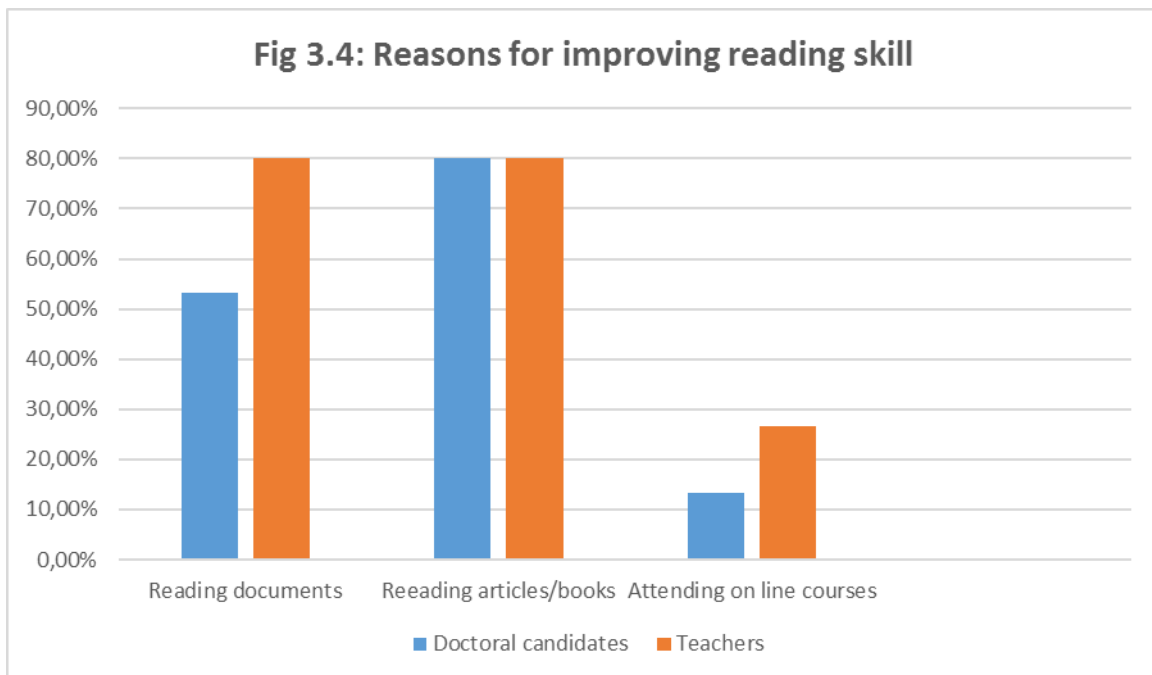


Reasons behind improving language skills vary among teachers and PhD students. Actually, for teachers ameliorating listening for understanding a presentation has the lion's share; it represents 80%. Interacting with foreign colleagues and defending a scientific result is of the same importance as participating in online conferences, and transmitting scientific data, besides attending training abroad with different proportions, which equal 26,66%; 33,33%; and 40%.

The rate differs among doctoral candidates; indeed, the highest amount is for understanding a conversation with foreign colleagues and grasping a presentation; the rate equals 46,66% and 40% sequentially. (See Fig 3.3)

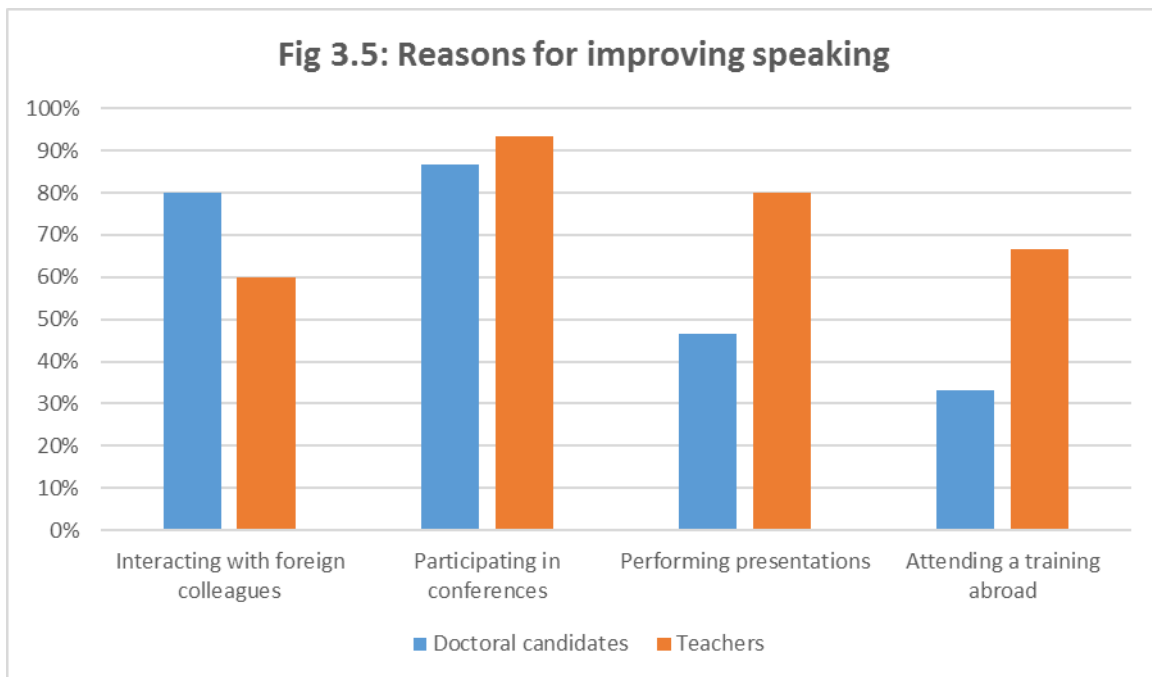


As far as reading skills, content teachers want to be at the level for reading documents, articles and books. Researchers need to be in constant link with the most recent investigations and information; they need to be good readers because they are considered the bridge through which knowledge is conveyed. The result is 80%, the same case for students, and the lowest rate is for participating in online courses. (See Fig 3.4)

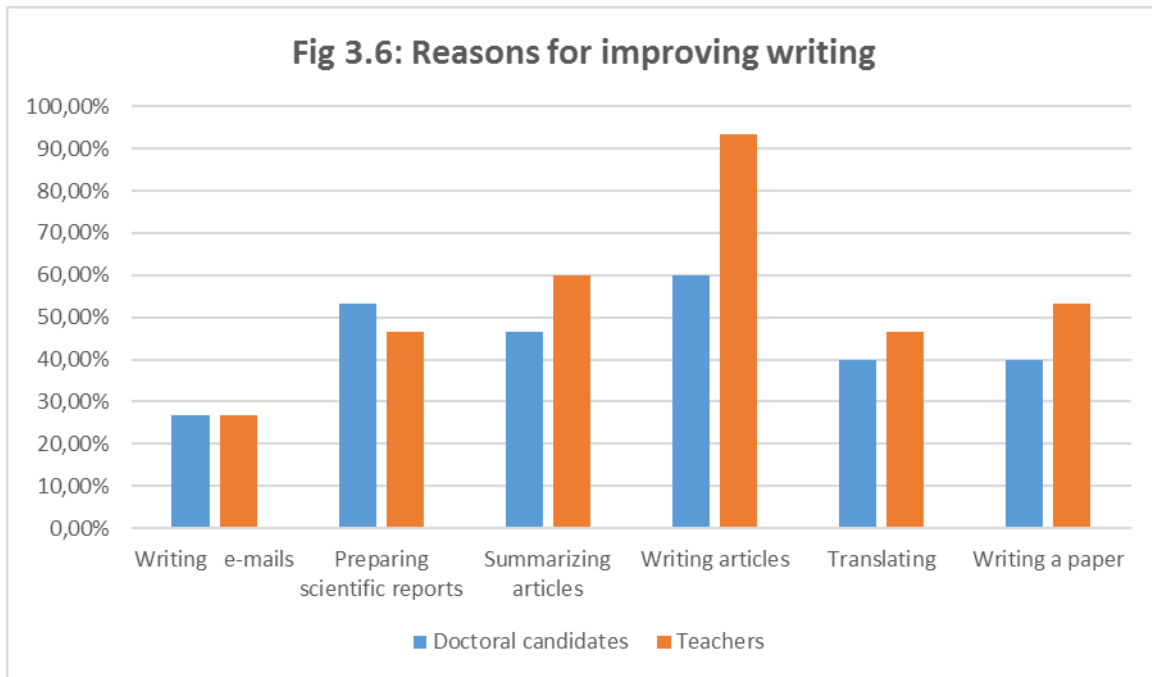


For the productive skills, exgency for improving speaking is devoted chiefly to communicating with foreign colleagues for both content teachers and doctoral candidates: 60%,80% accordingly. Mastering speaking for participating in conferences as teachers or

students attending seminars is imperative. 93,33% of teachers and 86,66 Doctoral candidates have referred to such necessity. As we engage in conferences, we perform presentations to convey the outcome of scientific enquiries; 80% of teachers and 46,66% of students have pointed out this requirement. As teachers always have the opportunity to participate in training abroad, 66,66% declared that improving speaking skills is a prerequisite to interacting successfully. However, just 1/3 (33,33%) of doctoral candidates have indicated this demand. (See Fig 3.5)

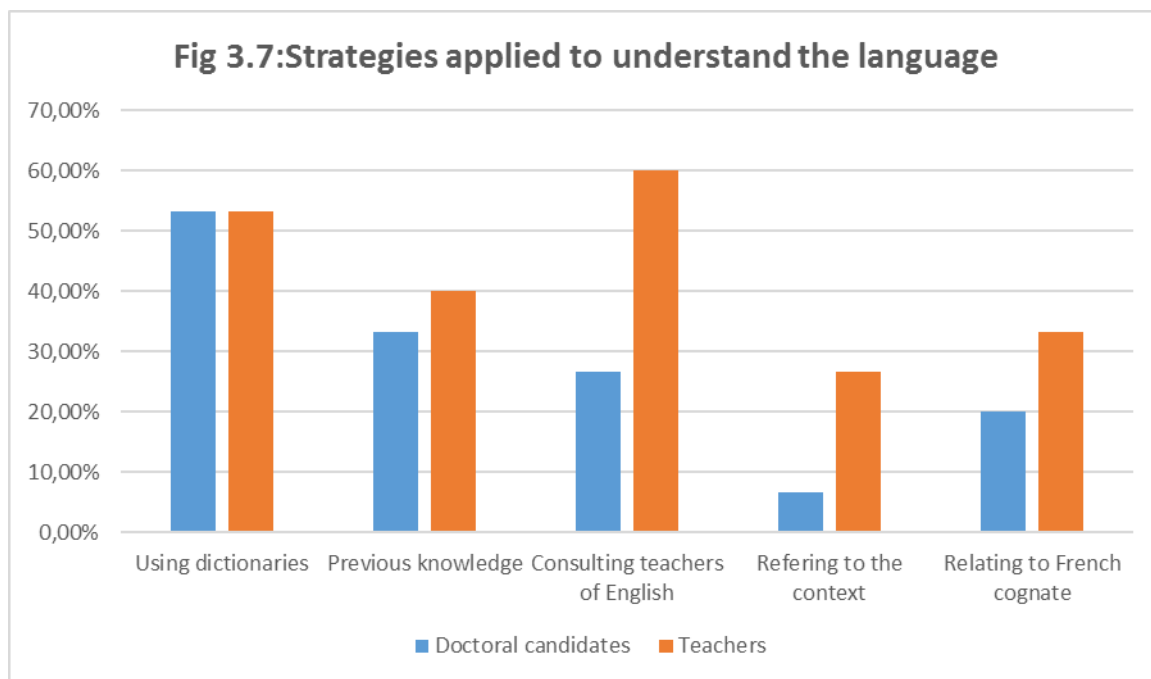


Regarding writing skills, the most important activity for both teachers and students is writing articles; 93,33% and 60% have cited that mastering writing is a prerequisite to being part of the international scientific community. They have also mentioned other activities such as translating and summarizing articles besides scientific reports with diverse rates. (See Fig 3.6)



All these language skills and the purposes set to be acquired need an acceptable level of competence in the English language. The population concerned is the one who has studied English as an additional subject to which a limited hourly amount is attributed. Therefore, this population always requires remedial teaching to better their level to be acquainted with the international academic community. Consequently, 46,66% have attended private school courses in English, and the majority have attended courses provided by the Centre for Intensive Learning of Foreign Languages (CEIL).

Both teachers and their candidates are aware of the cruciality of the situation. Besides private courses, both teachers and students apply practical strategies and specific procedures to understand English while reading. Half of the respondents use dictionaries with 53,33%; 1/3 of doctoral students rely on their previous knowledge, and the same case is actually for 40% of teachers. The working environment for teachers provides the opportunity to be in touch with teachers of English colleagues; they are always consulted for explanations, translation, and even corrections. 60% of teachers rely on this procedure. Referring to context and relating to French cognate are less frequent proceedings.



Indeed, mastering English is an effective path towards scientific research; as teachers and doctoral candidates, the need for the English language is persistent. Having an acceptable level of receptive and productive language skills is a *sin qua non* for keeping pace with the latest discoveries, inventions, and theories in content subjects.

Conclusion

English is the language that makes the world go round; the world of research and science does not exclude the use of English because it is set on a global scale. The present work has shed light on the necessity of the English language for researchers, and it is not only necessary but also compulsory. Doctoral candidates are willing to improve English for Academic Purposes; both teachers and students are interested in ameliorating language skills (both receptive and productive). The respondents, including 15 doctoral candidates and 15 teachers, have focused on the specific state of English in the field of studies and research; a significant number of essential references are written in English. To get access to this information, we need to have an acceptable level of English for Reading, summarizing, and even translating. The acquired data should be conveyed in writing or interacting with a global audience, including foreign scholars, colleagues, or international audiences. Whenever we try to publish articles in a national journal, we always need to translate the abstract into English; it is an imperative procedure for which many teachers consult their English language colleagues.

The respondents have asserted that language skills are essential in research; they think they are the cornerstone of any academic activity, such as reading, publishing, listening and interacting. They have also referred to the strategies and procedures applied to cope with any difficulty they face when teaching or receiving scientific data. The respondents have attended private courses provided by schools and CEIL at the level of the university. All these procedures are tackled to improve their level of English to be updated to new research and investigations performed on the national and international scale.

Moreover, they are conveying the results of their studies and an influential member of the global academic community. Courses of English provided at the university should contribute to developing reading, listening, speaking, and writing proficiency. However, they should also cater to immediate academic needs and delayed needs. Different activities can induce effective listening, which should be present and integrated within speaking, reading and writing. It is imperative to deal with language practice and grammar. Both doctoral candidates and teachers have declared the urgent need to improve language exponents. This study has revealed some valuable data, but it is limited because of the restricted number of respondents; a more profound study would reveal more information about the curriculum provided and the number of hours attributed to ESP teaching; further research can be performed. The Ministry of Higher Education has adopted training procedures since 2014, and it aims at installing or backing up the pedagogical competencies. However, this is applied in general there is no selection based on the different subjects. This new procedure could be used for determining subjects such as ESP.

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