

ACADEMIC AND SCIENTIFIC ENGLISH: A RELEVANT COMPETENCE FOR HEALTH SCIENCE PROFESSIONALS TO IMPROVE EUROPEAN HIGHER EDUCATION

NICOLÁS ESTÉVEZ FUERTES

University of Valencia, Spain

PILAR MARTÍNEZ PELEGRÍN

University of Murcia, Spain

EUSEBIO V. LLÁCER LLORCA

University of Valencia, Spain

LUCÍA T. HIPÓLITO CUBEDO

University of Valencia, Spain

ABSTRACT. *Today scientific as well as academic training in English for Health Sciences constitute both a fairly unquestionable process and an irremediable requirement toward the acquisition of an international education, as it could possibly enable mobility as part of the European converging processes. Our purpose in this study stems from the evidence of data that Health Science students and professionals feel a strong need to acquire a linguistic autonomy in English in order to communicate and share their scientific and academic research experiences. To illustrate the existence of this demand we have recently conducted a survey involving Health Science educators in Europe, which gathers information regarding the importance of training in written English in their curricula. Our survey also evaluates which skill is socially deemed most important in order to converge with Europe and integrate our professionals in the society of knowledge throughout the international academic and scientific communities.*

KEYWORDS: *ESP, EAP, English for Health Science Curriculum. English Language Learning, European Converging Process.*

RESUMEN. *Hoy en día, la enseñanza del inglés científico/académico para ciencias de la salud constituye un proceso ciertamente incuestionable y un requisito que abre las puertas a la internacionalización para profesores y profesionales de las ciencias de la salud. Al mismo tiempo, esto les capacita para lograr la integración dentro del Proceso de Convergencia Europeo de Enseñanza Superior. Nuestro objetivo en este estudio es evidenciar que los profesionales de ciencias de la salud experimentan una gran necesidad de alcanzar una cierta autonomía lingüística en inglés para comunicar y compartir sus experiencias académicas y científicas. Para ilustrar este hecho, hemos llevado a cabo recientemente una encuesta dirigida a docentes procedentes de veintiun centros universitarios de ciencias de la salud europeos acerca de la importancia de la inclusión de la enseñanza del inglés en sus planes de estudios. Además nuestro trabajo trata de evaluar qué destreza es socialmente considerada más importante en el proceso de convergencia con Europa y la integración de nuestros profesionales dentro de la sociedad del conocimiento a través de las comunidades académicas y científicas -europea e internacional.*

PALABRAS CLAVE: *IFE, IFA, Inglés en el currículum de Ciencias de la Salud. Enseñanza de la Lengua Inglesa, Proceso de Convergencia Europeo.*

1. INTRODUCTION

Over the last decades the increasing demand and therefore the need for intensive and extensive courses in reading, writing and oral delivery of presentations over the world have been requiring a special attention with regards to linguistic and teaching training in the field of Health Sciences. Nevertheless, university institutions have often failed to provide an appropriate covering in their curricula in order to develop these scientific and academic tools of communication. This is the reason why in the last few years, research into academic and scientific English has turned out to be one of the most interesting and fascinating field of study endeavour, for it is closely related to integration in Europe being a very useful search

tool for any developing opportunities in this field. On the other hand, we strongly believe that, generally speaking, Health Science students, educators and professionals more often than not, require a special methodological approach to learning how to communicate in English.

This article describes an assessment carried out with Health Science professionals from a large number of Higher Education Centres in Europe to evaluate the importance of Academic and Scientific English for Health Science purposes as one of the most relevant competences and a stepping stone towards international education in this field.

The past years have produced a plethora of studies to evaluate the increasing demand of academic and scientific articles published in English in scholarly journals. In this way, Baldauf & Jernudd's (1983) findings show that in the 60's and 70's the percentage of scientific publications in English was 55.3% and 60% respectively of the total number. In other studies, Maher (1987: 13), Jernudd & Baldauf (1987) pointed out that in the 80's, 72.2% of the research papers were written in English. In the 90's, according to Gartland (1993) and Wood (1997) the number of articles increased up to 90%. Finally, in the 21st century, Flowerdew (2000, 2005) has stated in his research that Scientific English has increased and developed enormously, especially in the Health Sciences.

Today, according to the Bologna Agreement (1999), this international Academic and Scientific communication competence requirement has proved to be more necessary for European Higher Education students, educators and professionals in this field, since all of these Health Science experts must be able to communicate in another official European language apart from their own. Furthermore, this communication competence will enable mobility for students and educators through the different University Institutions in Europe.

On the other hand, Health Science scholars and professionals in general but, especially in Spain, complain that they lack the ability to convey in written and spoken English the results of their research. This, in turn, hampers their possibility of attending international meetings, conferences and congresses (Estévez, Piqué & Ostbye 1996).

The main goal of this research arises from the need to assess and stress the importance of Academic/Scientific English for the Health Science curriculum in European Higher Education. Therefore, this paper summarizes the need to acquire linguistic autonomy in English in order to improve in this field and be ready to compete in this scientific community.

2. MATERIALS AND METHOD

The assessment team worked with Health Science scholars from different European countries such as Belgium, Finland, Sweden, Spain, Portugal, Italy, Latvia, Holland, England, Russia and Lithuania. The study procedure to achieve our objective was based on a questionnaire answered by 80 scholars from the 20 different Health Science Centres; Medicine, Physiotherapy and Chemistry.

The five questions below were answered by 80 educators:

- *Question 1: Is the teaching of Academic/Scientific English Language included in Health Science Curriculum in your centre?*
- *Question 2: Do you consider Academic/Scientific English an important tool for future Health Science students' education?*
- *Question 3: Which skill is the most relevant for you?*
- *Question 4: Do you use bibliography in English to prepare your classes and evolve in this field?*
- *Question 5: Which language do you consider most important for academic and scientific development?*

3. RESULTS

3.1. *Is the teaching of Academic/Scientific English Language included in the Health Science Curriculum in your centre?*

Figure n. 1 shows that Academic/Scientific English language has been included in the curriculum in 12 of the 20 Health Science centres evaluated. The rest 8 centres did not include this subject in their curriculum. However, the research team would like to underline that 4 of the 8 centres, in which Academic/Scientific English was not included, belong to the United Kingdom. Therefore, this specific detail helps us explain our findings as well as assert that in 80% of the Health Science centres this linguistic subject is included as part of their curriculum.

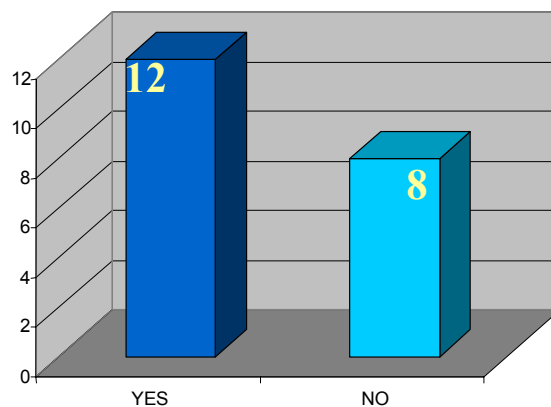


Figure 1. *Academic/Scientific English in Health Science Curriculum*

3.2. *Do you consider Academic/Scientific English an important tool for future Health Science students' education?*

In this second answer, the sharp peak in the scholars' responses (Figure. n. 2) indicates that 68 out of 80 scholars agreed with each other about the high importance of this international communicative tool for the students. The rest of the educators questioned (12) showed that it also has to be considered 'important' for students of Health Sciences. None of the educators considered it 'non important'. Therefore, 100% of the answers postulate that Academic and Scientific English are either 'very important' or 'important' for future Health Science students.

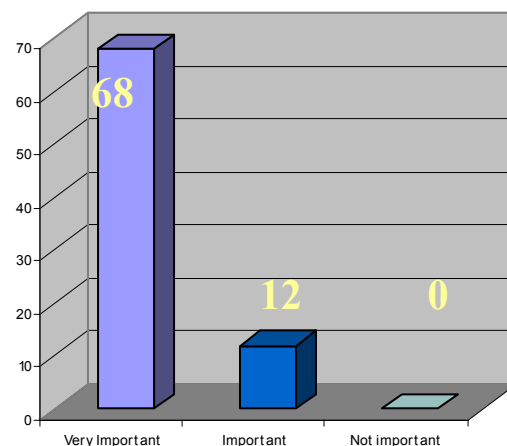


Figure 2. *Academic/Scientific English as an important tool for future Health Science students' education.*

3.3. Which skill is the most relevant for you?

In the results of the third question assessment, about which skill is the most relevant for them, a high percentage (55) of the lecturers coincided on the 'reading' skill as the most important competence in this field. However, 'writing' (10 of the subjects questioned) occupies the second place, speaking the third (9 of the subjects) and, finally, listening (6) was given the 'least importance'.

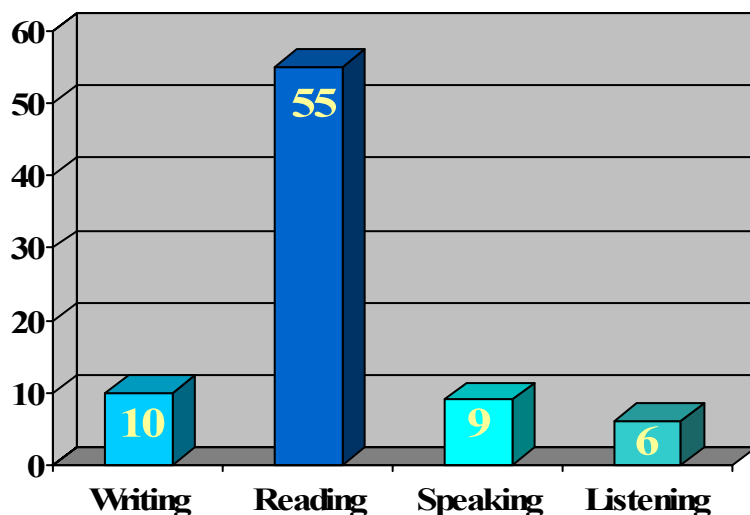


Figure 3. Most relevant skill for Health Science students' education

3.4. Do you use bibliography in English to prepare your classes and evolve in this field?

The results in Figure n. 4 suggest that most of the educators (71 of the 80 subjects) used on a regular basis bibliography in English to prepare their classes and evolve in their field. Only 9 subjects didn't consider English as their main language used to prepare their classes and improve in their field.

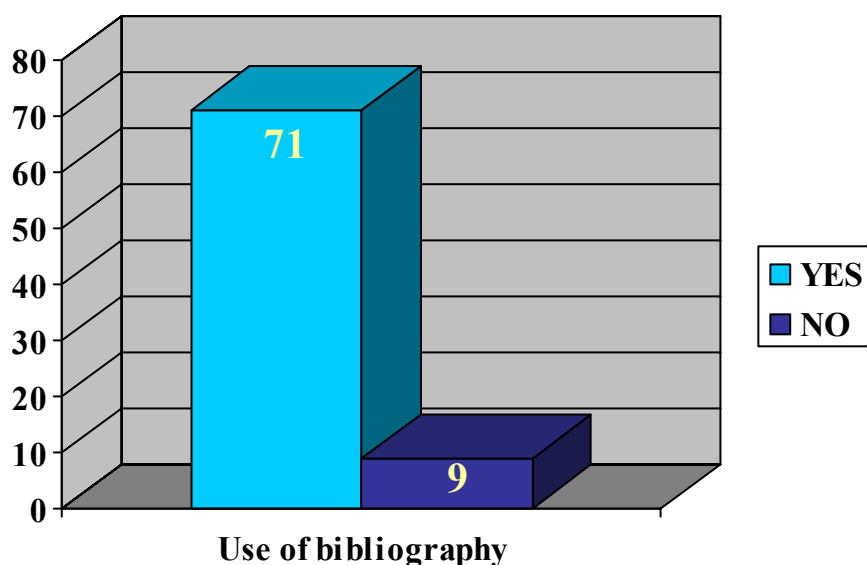


Figure 4. Use of Bibliography in Academic/Scientific English teaching

3.5. Which language do you consider most important for academic and scientific development?

The findings in Figure n. 5 strongly suggest that most (77 out of 80, 99%) of the subjects considered English language a VERY IMPORTANT or IMPORTANT tool (a 'Lingua Franca') to communicate in the Academic/Scientific World. French and Spanish languages are not considered as relevant as means of communication in this field.

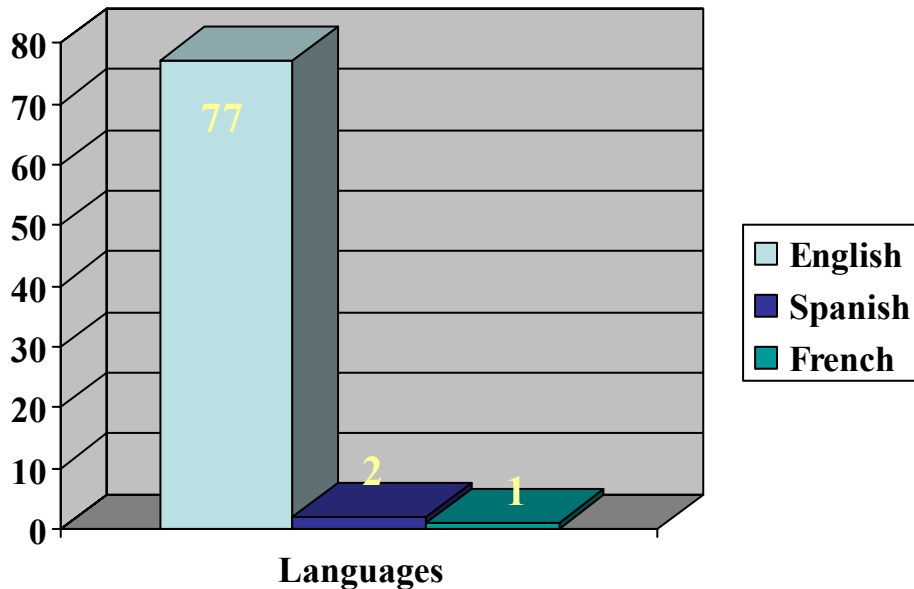


Figure 5. Most relevant Academic/Scientific Languages used in the Health Sciences career development

4. CONCLUSIONS

The Bologna Agreement (1999) education policy has become a central issue and has increasingly affected many European countries; as joining forces working toward the obtaining of better results in their education, in order to improve and compete in the Health Sciences field. Thus, the outcomes of the questionnaire presented in the above section become an extended explanation of the importance of Academic/Scientific English language in the Health Science curriculum in European Higher Education.

For the time being, we all acknowledge that many Health Science professionals, even though capable of reading and understanding an English text well enough, unfortunately suffer from what Minot and Gamble (1991: 119) call 'poor self-image or low self-esteem' since they cannot write or give a presentation of their own scientific research in English. Moreover, Academic/Scientific English language is also important to facilitate students' and teachers' mobility as part of the Scientific/Academic educational Converging Processes in Europe.

In short, we believe that people responsible for designing Health Science curricula in Higher Education should consider being competent in the use of this widely used international linguistic tool as a stepping-stone towards Academic and Scientific education development.

BIBLIOGRAPHY

- Baldauf, R. B., & B. H. Jernudd. 1983. "Language of publications as a variable in scientific communication". *Australian Review of Applied Linguistics*, 6: 97-108.
- Das, B. K., ed. 1987. *Communicative language teaching*. Singapore: RELC.
- Estévez, N., Ostbye, L. I., & J. Piqué. 1996. "A Process-Focussed Approach to Writing". In J. Piqué, J., Andreu-Besó, V. & D. J. Viera, eds. pp. 137-147.
- Flowerdew, J. 2000. "Discourse community, legitimate peripheral participation, and the nonnative-English speaking scholar". *TESOL Quarterly*, 34 (1): 127-150.
- Flowerdew, J. 2005. "A Multimethod Approach to Research Into Processes of Scholarly Writing for Publication". In P. K. Matsuda & T. Silva, eds. 65-79.
- Gartland, J. J. 1993. *Medical Writing and Communicating*. Frederick, MD.: University Publishing Group.
- Jernudd, B.H. & R. B. Baldauf. 1987. "Planning science communication for human resource development". In B. K. Das, ed. 144-189.
- Maher, J.C. 1986. "The Development of English as an International Language of Medicine". *Applied Linguistics* 7: 206-218.
- Matsuda, P. K. & T. Silva, eds., 2005. *Second Language Writing Research: Perspective on the Process of Knowledge Construction*. Mahwa NJ: Lawrence Erlbaum.
- Minot, W. S., & K. R. Gamble. 1991. "Self-esteem and writing apprehension of basic writers: Conflicting Evidence". *Journal of Basic Writing* 2: 116-125.
- Piqué, J., Andreu-Besó, V. & D. J. Viera, eds., 1996, *English in Specific Settings*. Valencia: Universitat de València.
- Wood, A. 1997. "International scientific English: Some thoughts on science, language and ownership". *Science Tribune*. Retrieved September 14, 2003, from <http://www.tribunes.com/tribune/art97/wooda.htm>.