

Dominant language of researchers across fields

Przemyslaw Korytkowski¹ and Emanuel Kulczycki²

¹*pkorytkowski@zut.edu.pl*

West Pomeranian University of Technology in Szczecin, ul. Żołnierska 49, 71-210 Szczecin, Poland

²*emek@amu.edu.pl*

Scholarly Communication Research Group, Adam Mickiewicz University in Poznań, ul. Międzychodzka 5, 60-371 Poznań, Poland

Introduction

The aim of this presentation is to investigate publication language patterns in terms of the dominant languages used by researchers. In this study, we understand dominant language as the language in which a researcher published the largest number of publications in a given period. In the case a researcher published the same number of publications in two or more languages in the analysed four-year period, we marked that person as balanced.

Research evaluation regimes across Europe treat publishing in English as a measure of internationalization and as a gold standard in research quality. However, researchers across the various fields publish in many languages, and this practice can be observed not only in the Social sciences and Humanities.

The choice of language of a scientific publication depends on internal factors such as the level of knowledge of the foreign language, and external factors such as the addressed audience, research topic or publication patterns. In this study we analyze, on the case of Polish researchers, publication practices in terms of the number of languages in which researchers communicate their results and the frequency of use of particular languages.

We use bibliographical records of publications from the Polish Scholarly Bibliography, a part of the Polish current research information system POL-on, published for the years 2013–2016. We analyse data on 67,413 Polish researchers who: (1) were academic staff members in the higher education institutions or research institutes; (2) published at least one publication of any type in the 2013–2016 period according to the POL-on data, and (3) obtained a PhD degree before 2013. In the data set were 1,031,141 publications, including journal articles and conference proceedings, as well as scholarly publications. The POL-on data is originally aggregated at the researcher level, meaning that whole counting is used, and every co-author is credited for a whole publication. The researchers were grouped into six OECD major field classifications (OECD 2007), i.e. Natural Sciences, Engineering and Technology, Medical and Health Sciences, Agricultural Sciences, Social sciences, and Humanities.

Results

Individual Polish researchers published in as many as eight languages (in History and archaeology, Law, Literature and languages). Among all researchers, 24,688 published in only one language, 38,875 in two, 3,218 in three and 632 in four or more. There are almost equal shares of those who published mostly in Polish and those who published mostly in English, and a small share of those who published in other languages, 31,875 vs. 31,344 vs. 1,117. There were 3,077 researchers whose publication language patterns were balanced, i.e. published exactly the same number of publications in two or more languages.

Analysis by fields allowed us to find interesting observations. Firstly, the dominant language in STEM fields is English, and in SSH fields is the local language, in this case – Polish. This regularity can be observed regardless of the number of languages in which the researcher publishes. The share of balanced researchers in terms of language is practically independent of the represented field. The number of researchers for whom the dominant language is neither Polish nor English in STEM is negligible. For example, in Natural Sciences there are only 23 such researchers while in the Humanities there are 924 such researchers, which is 10.7% of the total number of researchers in this field.

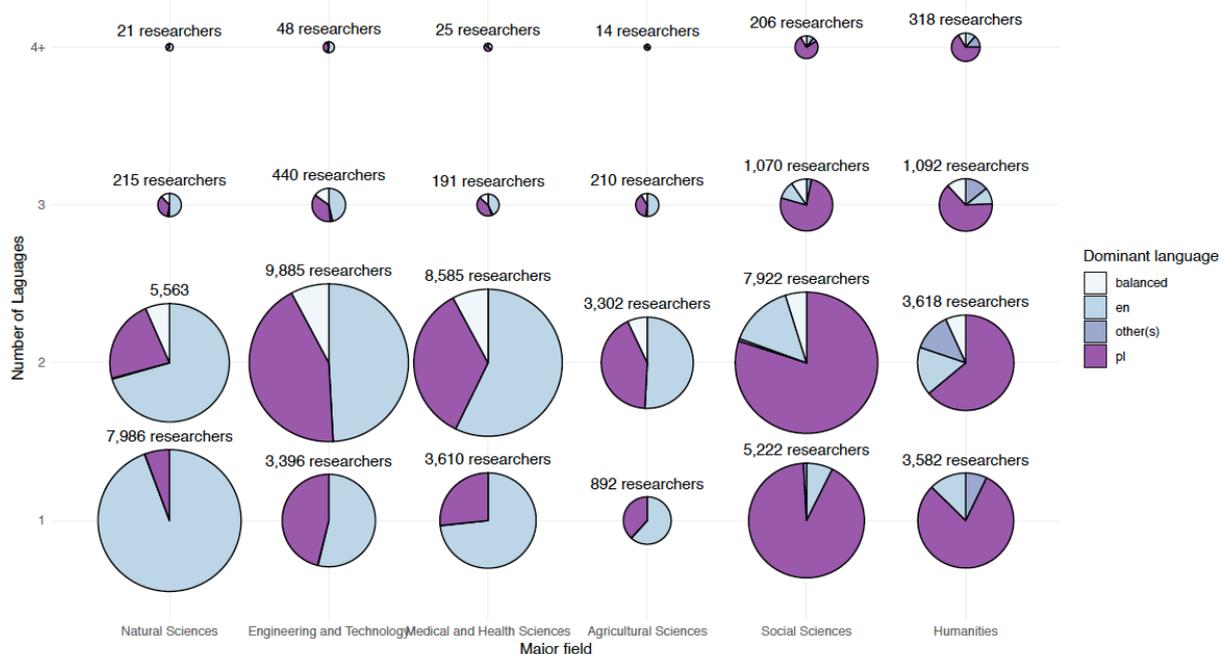


Figure 1. Dominant language across OECD major fields

Our findings show that not only researchers from the SSH but also from the STEM fields publish in local languages. Thus, internationalization practices should take into account these patterns. In this way, our presentation provides the evidence that multilingualism is vital regardless of the field of science.

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