

Crucial Decisions Needed: English in Science and Teaching in Non-Anglophone Countries

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Recently, two studies illustrated the complicated dimensions of the use of English in science. According to a September 2021 report from Clarivate's Institute for Scientific Information, English has taken over from Portuguese and Spanish as the dominant language of science in Latin America. Given that Latin America's overall research output grew more than in most of the rest of the world over the past four decades, this finding is of particular consequence, and shows the result of increased collaboration with scientists from outside the region, especially the English-speaking world and Europe, with in-region collaboration staying low (see also Natalia Ávila Reyes, "English as Academic Lingua Franca in Latin American Doctoral Education?" [in this issue](#)). These findings illustrate the dominance of Anglophone and Western research centers in non-Anglophone countries.

At the same time, according to an article in *Times Higher Education* (October 7, 2021), a paper in the journal *PLOS Biology* suggests that "non-English papers hold untapped information crucial to the conservation of global biodiversity, particularly in regions habituated by scientists who only publish in their own tongues." Lead author Tatsuya Amano stated in *Times Higher Education* that researchers tend to "blindly assume" that any important scientific knowledge is available in English, and that "[w]e need to rethink this assumption in many disciplines."

These two reports clearly illustrate the dilemma of the dominance of English in science. On the one hand, there is growth in the use of English as the dominant language in scientific reporting and of the related Western dominance in science. On the other hand, there is an increasing need to access scientific research in other languages and from other regional and cultural backgrounds. On the optimistic side, one could argue that the inclusion of coauthors from non-Western regions in scientific publications will stimulate more diverse input and, through them, access to reports from other languages

Abstract

English is the dominant language of instruction and scientific reporting worldwide. There is an increasing need to access scientific research in other languages and from other regional and cultural backgrounds. Non-Anglophone countries need to find a balance between quality of education, service to their own students, efforts to widen access, and national identity, as well making their higher education attractive to international students.

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and cultures. Increased availability and quality of translation tools will also stimulate access to sources in other languages. But this will only be possible through a more proactive, decolonial approach by Western scientists, research funding entities, and scientific publishers to end their current power dominance and open themselves to a more inclusive practice of scientific collaboration and dissemination.

English as a Medium of Instruction

English is not only the dominant global language of science and scholarship; it is gaining increasing importance as a language of instruction around the world. In the past several decades, developments such as the rapid upswing in global student mobility, the march of globalization, the internationalization of higher education institutions, and to some extent the advent of various world university rankings, have all contributed to the rise of English Medium of Instruction (EMI).

The varied approaches to EMI outside of Anglophone countries are embedded in local contexts. These include formerly colonized settings with histories of student mobility to universities located in, for example, the United Kingdom, as well as countries that have only recently moved to adopt English across their higher education system. Exact figures are difficult to come by, but in Europe alone, more than 8,000 bachelor and master degree programs are taught in English. EMI is also present in Africa, Asia, Latin America, and the Middle East. It is a global phenomenon that raises quality assurance and access and equity issues, as well as political concerns.

There are various reasons and rationales globally for pursuing EMI. The decision to pursue EMI may be a component of a policy iteration at the systemic level (as in the case of Rwanda, which shifted from predominantly French to English as a language of instruction in 2008) or at the institutional level, as demonstrated by the expansion of English-language programs at public and private institutions across continental Europe, China, Russia, South Korea, and many other settings.

There is no single EMI model in terms of funding, content, purpose, curricula, faculty, enrollment, or stability. EMI occurs at research universities as well as other types of institutions, public and private. It is imbued with colonial tensions and market appeal; EMI policy and practice is fragmented at the policy and program levels.

Given the engagement of public sector actors at the municipal, regional, and federal/national levels in various EMI schemes, as well as a plethora of private sector actors, it is interesting that the area of EMI has not drawn more attention from supranational actors involved with education policy, practice, and funding. This may be due in part to the complexity of the landscape: EMI occurs on various scales, in vastly different contexts, and with different rationales, goals, resources, and outcomes across national contexts. There are many professional associations that serve practitioners of EMI and those students who seek it. There is a whole industry around it for testing, services, and training, and there is also, at the institutional level, a range of policies and practices. Yet, in the existing global and national policy vacuum, language and EMI rationales, policies, programs, and outcomes are likely to remain fragmented. This creates a transnational access and equity issue that we find pressing.

As for internationalization and, more specifically, higher education as an export commodity in non-Anglophone countries, tensions are clear. The dominance of English as first or second language of communication has provided higher-income Anglophone countries with a competitive advantage in recruiting international students. Non-Anglophone countries and their institutions of higher education tend increasingly to teach not only in their own language but also in English. With higher education becoming an export commodity, non-Anglophone countries need to find a balance between, on the one hand, quality of education, service to their own students, efforts to widen access, and national identity, and on the other hand, an active recruitment policy and making their higher education attractive to international students who are not fluent in the local language of instruction—in other words, offering them programs taught in English. This requires a national and institutional (higher) education language policy, which in most countries is still lacking or is stalled in intensive debates. ▲

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