

Strategies for Globalizing Research in the Educational Sciences

JONES Keith
University of Southampton, UK

[Abstract]: Globalization, and the internationalization of universities, brings both opportunities and dilemmas for university researchers in general, and for researchers in the Educational Sciences in particular. International collaboration has been shown to have a positive effect on the productivity of researchers in terms of the number of publications authored and co-authored, the impact of their research in terms of number of citations, and their research quality in terms of the ranking of the journals of publication. At the same time, international research focuses might not match with national priorities and trends in the researchers' own countries, and the need for non-native speakers of English to write in English is well-recognized as very demanding. In this paper I review the evidence on research collaboration internationally, and in medium-sized countries such as Japan, and examine the internalization of research in the Educational Sciences in particular. I then explore some strategies for Education researchers, and their scholarly organizations, to globalize their research. I conclude by returning to the benefits and dilemmas, both for researchers and for scholarly organizations in the Educational Sciences, of globalizing academic research.

[Keywords]: globalization, internationalization, research, Educational Sciences

1. Introduction

Globalization, while being a disputed term with disputed parameters and disputed effects (Ritzer, 2008), is generally taken to refer to the increasingly globally-connected world that people experience. Notwithstanding its disputed nature, globalization is recognizably "transforming knowledge production processes, universities and the academic profession" (Huang, 2013, p. 1). The internationalization of universities, defined by Knight (2004, p. 26) as "the process of integrating an international, intercultural, and global dimension into the purpose, functions (teaching, research, and service), and delivery of higher education", is one aspect of globalization that is impacting on university researchers in general, and researchers, and their scholarly organizations, in the Educational Sciences in particular.

Most studies of the globalization of universities have, to date, focused primarily on student mobility and on institutional strategies for internationalization. There is much less research relating to the internationalization of research and almost nothing for researchers and their scholarly organizations in the Educational Sciences, in particular, relating to strategies to internationalize their academic research.

In this paper I review the opportunities and dilemmas that globalization, and the internationalization of universities, raise for university researchers in general, and for researchers, and their scholarly organizations, in the Educational Sciences in particular. I then explore some strategies for researchers and their scholarly organizations in the Educational Sciences to globalize their research. I conclude by returning to the benefits, and dilemmas, for researchers and their

scholarly organizations in the Educational Sciences who are working on globalizing their academic research.

2. Globalization and university research

The research that has focused on the globalization and internationalization of university research has pointed to distinct benefits, but also to distinct dilemmas. Amongst the distinct benefits of the international collaboration that comes with the globalization and internationalization of universities is the positive effect on the productivity of researchers in terms of the number of publications authored and co-authored, the impact of their research in terms of number of citations, and their research quality in terms of the ranking of the journals of publication (Huang, 2015; Rostan, et al., 2014; Woldegiyorgis, et al., 2018).

Amongst the distinct dilemmas are that international research focuses might not match with national priorities and trends in the researchers' own countries (Huang, 2015; Rostan, et al., 2014; Woldegiyorgis, et al., 2018), and that the need for non-native speakers of English to write in English being well-recognized as very demanding in a number of ways (Barwell, 2003; Geiger & Straesser, 2015; Meaney, 2013). Further consideration is given in the next section to the phenomena that international research focuses might not match with the national priorities and trends in the researchers' own countries. On the matter of the need for non-native speakers of English to write in English being well-recognized as very demanding, this is not solely in terms of proficiency with English. In writing in English, it is also that "some ways of making sense of the world are favoured over others" (Barwell, 2003, p. 39) such that "there are doubts

about whether English can mirror the subtleties of research originally completed in other languages (Geiger & Straesser, 2015, p. 36). What is clear is that the English language is continually enhanced by the addition of words and phrases that originated in other languages. Example of everyday words of Japanese origin that are now part of English range from *emoji* to *futon* to *typhoon*. Examples of technical terms in the Educational Sciences that are of Japanese origin that can be found in English language publications by non-Japanese researchers include *kyozai-kenkyu*, *hatsumon*, *bansho*, *kan-shido*, *neriage*, *yamaba*, *matome*, *kochi*, and so on. There is no doubt that research in the Educational Sciences is enhanced by the technical terms of Japanese origin (as it is by technical terms originating in other languages).

3. Internationalization of research in Education

In one of the few published studies of the internationalization of research in the Educational Sciences, a study by Jones and Oleksiynko (2011) compared the case of researchers in Medicine with the case of researchers in Education in the context of globalization in a university in the Canadian province of Ontario. They found that both sets of researchers placed “high emphasis on the local dimension in their policies and activities” (Jones & Oleksiynko, 2011, p. 50). What is more, both also had high levels of international research activity.

At the national level there were differences; in Medicine the researchers contributed to national research efforts but for Education researchers the lack of a national Ministry of Education (in a federal country like Canada) meant that the national emphasis of their work was only moderate. This points to how the national context can greatly influence the degree to which researchers in Education engage internationally. For these Canadian researchers in Education, the lack of a national Ministry of Education may have spurred their international engagement. In countries where there is a strong national Ministry of Education, this might serve to inhibit international engagement.

While both sets of Canadian researchers, in Medicine and in Education, were judged to have high levels of international research activity, there were differences at the international level of research. The medical researchers argued that “team work was becoming a necessity in their field and was spearheading organized research” (p. 51); the Education researchers primarily emphasized individual research. This example from Canada illustrates how the priorities and trends in the researchers’ own country impact of the local, national, and international scope of their research.

There is little research that has examined the role

of scholarly organizations in supporting researchers to globalize their research. Estes and Germain (2016, p. 299) argue that “an academic society should focus on ensuring that members of the discipline regularly engage in professional development activities that help to ensure that the discipline will remain healthy well into the future”. Feingold and Estes (2016, p. 288) argue that if scholarly organizations “are to be taken seriously”, such organizations need “to connect their scholarly interests to societal and global needs and interests”. Such considerations show the important role that scholarly organizations have in supporting their researcher members to globalize their research and in enhancing the international research effort by their contribution.

4. Strategies to globalise Education research

In this section, I summarize some strategies for researchers, and scholarly organizations, in the Educational Sciences to globalize their research.

One set of strategies relate to the realizing the potential contribution of local and national context and areas of expertise. In connecting with research agendas being played out in the international arena, the identification of aspects of the local and national context and areas of expertise that relate to the international research agenda can help to galvanize the globalizing of researchers’ perspectives on their research. An example of Education research in Japan that has gained international attention is *Lesson Study* (Lewis & Lee, 2017). The main focus of such interest is Lesson Study as a form of teacher professional development; there seems to be less focus on Lesson Study as a form of ‘Teaching Experiment’ (e.g. Presmeg & Barrett, 2003) or ‘Design Research’ (e.g. Sack & Vazquez, 2011) and, as such, less focus on the way that Lesson Study relates to research on task design, curriculum design, and so on. That Lesson Study as a form of teacher professional development has caught the global Education imagination is no doubt related to several factors. That it has caught the global Education imagination means that there are likely to be other aspects of Education research in Japan that can equally have impact internationally.

A second set of strategies relate to building on the work of national scholarly organizations in ways that link with international opportunities. Much of the day-to-day work of national scholarly organizations naturally revolves around organizing national events, and producing national journals usually in the national language. Yet, as noted above, national scholarly organizations have a role in ensuring that “the discipline will remain healthy well into the future” (Estes & Germain, 2016, p. 299) and that it helps to connect members’ scholarly

interests to “societal and global needs and interests” (Feingold & Estes, 2016, p. 288). In the Educational Sciences, this might involve the scholarly organization engaging with the international research agenda and finding ways, including professional development activities, which support its members in globalizing their research. The scholarly organization might also consider, or reconsider, how it publishes for an international audience and how it helps to encourage researchers in other countries to engage with research carried out by its members within their own country (for discussions of scholarly publishing in Japan, including the phenomena of *kiyo*; see, for example, Ishikawa & Sun, 2016; Kamada, 2007; Okamura, 2004).

A third set of strategies relate to the possibilities for international funding for projects and academic exchanges. With awareness of the potential contribution of the local and national context and areas of expertise comes the possibilities of ground-breaking projects and academic exchanges. Even though there are not, as yet, well-supported mechanisms for international collaboration in research, schemes increasingly allow what Edler, (2012, p 331) calls “a combination of national funds by ministries and agencies that are flexible enough for the requirements of different knowledge areas and societal challenges”. Edler goes on to argue that “Even without truly supranational decision and funding structures, ...regional organizations can facilitate and mobilize international funding schemes with a set of willing member countries aligning around a common challenge or knowledge area” (p. 332). National scholarly organizations have a key role in advocating for, and enabling participation in, such developments.

A fourth set of strategies relate to international conferences, meetings and visits. The *International Mathematical Union* (IMU) is one of the oldest international scholarly organizations in the world (for a history of the IMU, see Lehto, 2012). The impetus for its formation was the international nature of mathematics. The IMU created the *International Commission on Mathematical Instruction* (ICMI) in 1908 as an internationally-acting organization focusing on mathematics education (for a history of ICMI, see Menghini, et al., 2008); again the impetus was that recognition that there was, and remains, an international need to improve teaching standards, and the experiences of students, around the world. Researchers in mathematics education in Japan are well-known and well-respected for their involvement with ICMI in terms of in international conferences, meetings and visits. For example, the 9th *International Congress on Mathematical Education* (ICME-9, organized on

behalf of ICMI) was hosted in Tokyo/Makuhari in 2000. The Study Conference for ICMI Study 24 is taking place in Tsukuba in November 2018 (for more information, see ICMI Study 24 IPC, 2017). ICMI, and its associated activities, is one example of an international organization, with similar ones existing in other parts of the Educational Sciences. Ways of engaging with international conferences, meetings and visits is an important component of the internationalization of research in the Educational Sciences.

A fifth set strategies relate to opportunities for international publishing. Here, it is particularly important to understand the criteria of international journals in order to be accepted, and how to satisfy these criteria. Most international journals use a process of peer review, a method of critical assessment by independent experts (De Silva & Vance, 2017). When a manuscript is submitted to a peer-reviewed journal, an editor screens the manuscript to decide if it is appropriate to send to experts for review. The reviewers usually consider the following criteria: whether the contents of this manuscript match the journal’s aims and scope; whether the research original and novel; whether the aims, methods, results (including illustrations), discussion, and conclusion are presented in a clear and logical manner; whether the methodology is appropriate; whether applicable ethical guidelines were followed; whether the findings have real-world applications and implications; whether the findings are likely to of interest to the journal’s readership; whether the ideas in the manuscript are clearly communicated in English; whether the manuscript has been formatted according to the journal’s guidelines.

5. Discussion and conclusions

It is known that knowledge is deeply entwined within the social context of the community in which it is created and reproduced. This is especially the case for research in Education. There is a danger that knowledge is lost through the process of translation and assimilation into another language. Yet ‘otherness’ can help to illuminate the familiar and enable new insights. In counter-acting any potential risk that internationalization results in research becoming homogenized and standardized in approach, the benefits of interacting with researchers from other countries and backgrounds leads researchers to challenge their own assumptions about what is being revealed through both localized and internationalized research. Not only that, the involvement of researchers from all countries means that it is more likely that global challenges can be tackled. Such global involvement of researchers also helps to improve the quality of

research internationally. The world-wide research community is impoverished if there is under-representation by any countries.

Despite the benefits of the globalization and internationalization of research being clear, it can seem that the difficulties of globalization and internationalization of research are too great. The danger is that such 'down-sides' to globalization and internationalization can lead to reinforcing, or even increasing, a tendency towards insularity. This threatens the quality of both national and international research. Not only that, but, according to Kwiek (2015, p. 354), "those [researchers] who do not collaborate internationally may be losing more than ever before in terms of resources and prestige in the process of 'accumulative disadvantage'".

The world faces a number of unprecedented challenges that are, in part, driven by population growth and the resulting demand on finite resources. Such challenges include, but are not limited to, climate change, water quality and supply, energy needs, food production, newly-emerging diseases, land degradation, ecological threats, conflicts and disputes, and many more. These challenges are global; national boundaries are not relevant. Tackling such issues is a global task in which the Educational Sciences have a key role to play. Solving such problems needs everyone. It is not about de-valuing local needs, it is about up-valuing local needs to the international arena.

References

- Barwell, R. (2003). Linguistic discrimination: An issue for research in mathematics education. *For the Learning of Mathematics*, 23(2), 37-43.
- De Silva, P. U. K., & Vance, C. K. (2017). Preserving the quality of scientific research: Peer review of research articles. In P. U. K. De Silva & C. K. Vance, *Scientific scholarly communication* (pp. 73-99). Cham, CH: Springer.
- Edler, J. (2012). Toward variable funding for international science. *Science*, 338(6105), 331-332.
- Estes, S. G., & Germain, J. (2016). Professional academic societies: Stewards of the future. *Quest*, 68(3), 292-305.
- Feingold, R. S., & Estes, S. G. (2016). The politics, roles, and future of professional societies. *Quest*, 68(3), 284-291.
- Geiger, V., & Straesser, R. (2015). The challenge of publication for English non-dominant-language authors in mathematics education. *For the Learning of Mathematics*, 35(3), 35-41.
- Huang, F. (2013). The internationalisation of the academic profession. In F. Huang, et al. (Eds.), *The internationalisation of the academy* (pp. 1-21). Dordrecht: Springer.
- Huang, F. (2015). Internationalization. In A. Arimoto, et al. (Eds.), *The changing academic profession in Japan* (pp. 197-211). Dordrecht: Springer.
- ICMI Study 24 IPC (2017). *School mathematics curriculum reforms: Challenges, changes and opportunities - discussion document*. Berlin: ICMI.
- Ishikawa, M., & Sun, C. (2016). The paradox of autonomy: Japan's vernacular scholarship and the policy pursuit of "Super Global". *Higher Education Policy*, 29(4), 451-472.
- Jones, G. A., & Oleksienko, A. (2011). The internationalization of Canadian university research. *Higher Education*, 61(1), 41-57.
- Kamada, H. (2007). Kiyo journals and scholarly communication in Japan. *Portal: Libraries and the Academy*, 7(3), 375-383.
- Knight, J. (2004). Internationalization remodeled: Definition, approaches, and rationales. *Journal of Studies in International Education*, 8(1), 5-31.
- Kwiek, M. (2015). The internationalization of research in Europe. *Journal of Studies in International Education*, 19(4), 341-359.
- Lehto, O. (2012). *Mathematics without borders: A history of the International Mathematical Union*. New York, NY: Springer.
- Lewis, C., & Lee, C. (2017). The global spread of lesson study. In M. Akiba & G. K. LeTendre, (Eds.), *International handbook of teacher quality and policy* (pp. 185-204). London: Routledge.
- Meaney, T. (2013). The privileging of English in mathematics education research, just a necessary evil? In M. Berger et al. (Eds.), *Proceedings of MES-7* (Vol. 1, pp. 65-84). Cape Town: MES.
- Menghini, M., Furinghetti, F., Giacardi, L., & Arzarello, F. (2008). *The first century of the international commission on mathematical instruction (1908-2008)*. Rome: IdEi.
- Okamura, A. (2004). How do British and Japanese scientists publish their academic papers in English? *The Economic Journal of Takasaki City University of Economics*, 46(4), 39-61.
- Presmeg, N., & Barrett, J. (2003). Lesson study characterized as a multi-tiered teaching experiment. In N. A. Pateman, et al. (Eds.), *Proceedings of PME 27* (Vol. 4, pp. 47-54). University of Hawai'i.
- Rostan, M., Ceravolo, F. A., & Metcalfe, A. S. (2014). The internationalization of research. In F. Huang et al. (Eds.), *The internationalization of the academy* (pp. 119-143). Dordrecht: Springer.
- Ritzer, G. (Ed.). (2008). *The Blackwell companion to globalization*. Oxford: John Wiley & Sons.
- Sack, J., & Vazquez, I. (2011). The intersection of lesson study and design research. In L. Hart, A. Alston & A. Murata (Eds.), *Lesson study research and practice in mathematics education* (pp. 201-220). New York, NY: Springer.
- Woldegiyorgis, A. A., Proctor, D., & de Wit, H. (2018). Internationalization of research: Key considerations and concerns. *Journal of Studies in International Education*, 22(2), 161-176.