English language requirements in the current international scientific publishing world: A content analysis of submission guidelines in chemical engineering

Bixi Jin
Beihang University (China)
bixijin@outlook.com

Abstract

There has been widespread concern over the issue of nonnative speakers' engagement in English for Research Publication Purposes (ERPP). The question of what kind of language for research writing is expected from international journals calls for further research. This study reports on a qualitative analysis of 140 journal submission guidelines in a specific engineering discipline (i.e., Chemical Engineering, henceforth CE). The findings highlight that while the majority of the guidelines tend to ask for native-like English, there is an emerging inclusive trend calling for clarity and understandability in response to the diversity of English adopted by global scientific communities and also the underlying disciplinary practices of science and engineering (S&E). The study echoes and extends the literature on ERPP. The implications are discussed mainly in two aspects. Journal policy makers of engineering journal guidelines are expected to consider linguistic diversity in manuscript review and publication. Academic writing instructors can design reading activities using *Instructions for Authors* in target journals for novice writers to have a systematic and solid understanding of journal language policies, or invite nonnative disciplinary researchers to share their experience in ERPP writing practices.

Keywords: English for research publication purposes (ERPP), English for Academic Purposes (EAP), science and engineering; international academic publishing, journal submission guidelines, academic writing instruction, ELF (English as a Lingua Franca).

Resumen

Sobre las exigencias referidas al uso del inglés en el actual mundo de la publicación científica internacional: un análisis de contenido de las normas de envío de artículos de ingeniería química

Ha habido una preocupación generalizada respecto a los hablantes no nativos en el ámbito del inglés para fines de investigación. Son, no obstante, necesarios más estudios acerca de qué tipo de escritura para fines de investigación se espera en las revistas internacionales. El presente trabajo lleva a cabo un análisis cualitativo de las normas de envío de artículos de 140 revistas de una disciplina concreta: la ingeniería química. Los resultados hallados evidencian que, si bien la mayoría de las revistas suelen solicitar artículos redactados en un inglés propio de un hablante nativo, también está surgiendo una nueva tendencia más inclusiva que otorga más importancia a la claridad y a la comprensibilidad, en respuesta a la gran diversidad del inglés empleado en las comunidades científicas globales, con las prácticas disciplinares subyacentes que ello conlleva en las ciencias y las ingenierías. Este artículo presenta y amplía la bibliografía sobre inglés para fines de investigación y presta especial atención a dos implicaciones fundamentales: por una parte, las normas de envío de artículos de las revistas especializadas en las ingenierías habrían de contemplar la existencia de una diversidad lingüística a la hora de evaluar y publicar los manuscritos recibidos; por otra parte, los profesores de escritura académica pueden diseñar actividades de lectura a partir de las normas de envío de artículos de las revistas en las que se espera que publiquen investigadores noveles, de tal modo que estos puedan comprender de manera más sistemática y completa las orientaciones lingüísticas ofrecidas por tales revistas; asimismo, también cabría invitar a investigadores no nativos de la misma disciplina para que compartan su experiencia en el uso del inglés para fines de investigación.

Palabras clave: inglés para fines de investigación, inglés para fines académicos, ciencias e ingenierías, publicación académica internacional, normas de envío de artículos en revistas científicas, enseñanza de la escritura académica, inglés como *lingua franca*.

1. Introduction and literature review

Over the past few decades, English has become the major medium of scientific communication in international publication (Ammon, 2001; O'Neil, 2017). It is estimated that by 2016, around 87% of the Science Citation Index (SCI) journals were published in English (Curry & Lillis, 2018). The importance of publishing in science and engineering fields (S&E) has long been recognized, as evidenced by its impact on researchers' career advancement and university research assessment (Hyland, 2016). A large number of studies on English for Research Publication Purposes (ERPP) (Flowerdew, 1999, 2008; Uzuner, 2008; Cho, 2009; Lillis & Curry, 2010; Pérez-Llantada, Plo & Ferguson, 2011; Mur Dueñas, 2012; Gnutzmann &

Rabe, 2014; Bardi, 2015) have reported scientists' engagement in academic publishing. Results from the majority of such studies have yielded useful insights into the challenges experienced by scientists who are non-native speakers of English (NNSs). Prior research pointed out that a wide array of non-linguistic factors (Canagarajah, 1996; Swales, 2004; Belcher, 2007), such as poor research competence, lack of funding and facilities, isolation from central research networks, or bias against native-speakers of English (NSs) among journal gatekeepers, may hinder the route to publication. However, it appears to be true that NNS scientists are also linguistically constrained and do experience an extra burden in learning how to write compared to NSs (Ferguson, 2007).

In recent years, given the increasing number of non-Anglophone researchers as journal articles' authors and gatekeepers in international publication (Wood, 2001; Ferguson, 2007; Hyland, 2016), interest has emerged in the acceptance of non-standard forms of language use, influenced by literature about World Englishes and English as Lingua Franca (ELF) (Mauranen, 2012; Jenkins, 2014). In this sense, language forms that deviate from the native English standard are recognized as illuminating 'differences' or 'variants' rather than 'deficits' (Jenkins, 2006). Motivated by this heightened interest in pluralistic views of English standards in academic publishing, with particular attention to the occurrence of non-standard forms of language use, Rozycki and Johnson (2013) offered a close examination of English grammar in 14 best papers in electrical engineering journals. The findings showed that the language in these award-winning papers included non-standard usages such as missing articles and simplified grammar, further indicating the tolerance of non-standard English possibly because of the predominance of NNSs as journal gatekeepers in S&E disciplines. The study raised the issue of making realistic investment in language editing services, given the fact that increasing numbers of papers are authored and reviewed by non-native science academics.

Similarly, Flowerdew and Wang (2016) and Tribble (2017) identified the presence of non-standard language in published research articles. Heng Hartse and Kubota (2014) critically examined NNS researchers' non-standard use of lexis and grammar in book publication textually mediated by native speakers. The findings raise doubt about the coexistence of standard English language and non-standard language use. They concluded that standard English still remains entrenched in the high-stakes academic publishing world, despite the sympathy for pluralizing the English language. Martinez

(2018) took a corpus-based approach by analyzing words and phrases in an NNS corpus of research articles across two different periods, in comparison to a parallel NS corpus. Instead of treating NNSs' writing as a deficit model, the lexical items typical of NNSs were seen as the evidence of ELF forms of language. These findings enrich our understanding of ELF by showing that lexical items identified as salient in the NNS corpus have been gradually accepted over the years, and further attest to the presence of ELF-like expressions in international academic publishing.

The abovementioned research provides insight into the role and nature of English language in academic publishing, further pointing to the need for close scrutiny of the language norms and standard expected by international journals. To date, studies that systematically investigated how English language requirements are regulated in journal guidelines in today's scientific communication and publications have been surprisingly scarce, in particular in S&E disciplines. Henshall (2018) probed into 341 economics journal guidelines by combing through the *Instructions for Authors*. The journal policies can be classified in terms of English language variety, grammatical correctness, and reader constraints. This paper concluded that journal English language policies are changing in response to increasingly diversified contributors. McKinley and Rose (2018) approached the issue by conceptualizing the errors, standards, and nativeness in 210 journal guidelines in major commercial publishers (e.g., Elsevier, Wiley, Springer, etc.) rather than academic disciplines. Their qualitative interpretation illustrated how many journal guidelines still stick to the native English language standard, positioning L2 writers as deficient and needing linguistic support by native speakers. Similar to Henshall's (2018) advocacy, their findings reiterate the need to reconceptualize error-free writing in journal guidelines in a way that enables NNS scientists to focus more on the understandability of language, in consideration of increasingly diverse and multilingual writers.

A solid understanding of journal submission guidelines, however, would have important implications for ERPP and pedagogy. For ERPP research, this understanding will further contribute to the growing body of literature on the role and nature of English in international scientific communication. This will allow us to carefully examine topics such as the standards of academic English in journal policy documents related to ERPP. For academic writing instruction, awareness of language requirements in guidelines may help writing practitioners develop appropriate pedagogical interventions for

novice scientists to be sensitive to the standard of written language in journal guidelines.

The goal of the current research is to systematically examine the language-related requirements in CE journals only. My primary focus here, however, is not to establish causal relationships between language and publication practices, but to explore whether language requirements in international CE journal guidelines do exist. The results from the investigation are then discussed in light of the role of language in ERPP literature. The implications of the findings for academic writing instruction in higher education can also be considered.

2. Method

The 140 chemical engineering journals were selected from the list of the Journal of Citation Reports 2017 (JCR) under the classification of '*Chemical Engineering*' (CE) in the Web of Science (WoS), accessible from a university library portal. Among them, seven journals were multilingual journals, which meant the articles were published both in English and in other languages (e.g., *Revista Mexicana de Ingeniería Química*). CE was under investigation because the choice of a single discipline can avoid the potential disciplinary variation in guidelines (Martinez, 2018). Disciplinary cultures including epistemological frameworks, research methodology, and analytical frameworks can vary considerably across disciplines, and might be a prominent factor in formulating language demands in academic writing and publishing (Gnutzmann & Rabe, 2014).

Several steps were taken to address the main research question, which is concerned with the description of English language requirements in scientific publishing. First, information regarding this aspect was extracted from the submission guidelines, in particular from the *Instructions for Authors*. Second, following the language-related requirements identified in prior research (see Henshall, 2018; McKinley & Rose, 2018), the analysis was conducted in an interpretive and qualitative tradition. Each journal guideline was read carefully throughout and special attention was directed to statements associated with the specifications on these aspects: (1) specifications on the variety of English (e.g., American/British English); (2) explicit or implicit request for grammatically correct English (e.g., "clear and accurate", "correct language and devoid of errors", "checked by native

speakers before submission"); (3) explicit request for linguistic clarity and understandability for communicative effectiveness (e.g., "concise and in a readily understandable style"); and (4) no overt information regarding the English language. Third, two expert CE scientists assisted my qualitative data analysis as long-term participants and were approached multiple times through face-to-face communication or via email. To increase the reliability of the analysis, I repeatedly discussed and checked with them on my findings to eliminate any potential bias in my interpretation. Both of them were familiar with journal language policies because of their rich international publication experience. For instance, after consultation with them, the specification concerning the variety of English was added, as the choice of the particular variety of English was recognized in many guidelines, possibly as a means to represent a journal's identity.

There were 140 journals in total under investigation, as one journal was inaccessible online and therefore excluded. Among these journals, over 65% were published by six major worldwide commercial publishers: 44 by Elsevier, 16 by Wiley, 14 by Taylor & Francis, 15 by Springer, 3 by De Gruyter, and 4 by the American Chemical Society. The rest of the journals were local or regional, from "developing countries or emerging research centers" (Salager-Meyer, 2015: 17). Sixteen journals (11.4%) did not mention any requirements related to the English they expected from contributors (e.g., *Latin American Applied Research*). In other words, no relevant information about English was made, either explicit or implicit, in their submission guidelines.

3. Findings

In response to the research question about English language requirements in CE international journals, qualitative content analysis was adopted to extract the relevant content. This section presents the findings concerning language-related requirements under three categories, i.e., conformity to a particular variety of English language, adherence to native norms and grammatical correctness, and style-related request for communicative effectiveness.

3.1. Conformity to a particular variety of English language

Although 51 CE journals ask contributors to prepare their work in English, it is interesting to note that here 'English' is further specified into a variety

of English, in most cases the American or British varieties. The publisher Elsevier, where 44 journals (31%) are based, endorses either American or British English. Journals like *Tenside Surfactants Detergents* and *Hemijska Industrija* accepted a mixture of American and British English. Three journals, i.e., *Periodica Polytechnica-Chemical Engineering*, *Macedonian Journal of Chemistry*, and *Chemical Engineering and Technology* make explicit that they privilege American English. Canadian or Australian English is not widely recognized in guidelines. Only the *Canadian Journal of Chemical Engineering* endorses Canadian English. Even though the *Asia-Pacific Journal of Chemical Engineering* is based in Australia, it asks only for 'English' instead of Australian English. The remaining journals only ask for 'English', but no further elaboration is made on the particular variety.

3.2. Adherence to native norms and grammatical correctness

English free from grammar, spelling, and typographical errors is required in 48 journals (34% of samples). An illustrative example is Elsevier, whose journals (e.g., *Journal of Catalysis*) unanimously call for 'good English' which has been "spell-checked" and "grammar-checked" by the Elsevier editing service. Alternatively, some journals, such as *Reactive Functional Polymers,* directly discard submissions due to formal aspects (manuscripts which are not written in fluent English will be automatically rejected without reviewing") or demand correctness and standard varieties of the language, as do the *Canadian Journal of Chemical Engineering* ("standard academic formal language") and *Oil & Gas Science and Technology* ("correct language and devoid of errors"). The guidelines acknowledge the importance of sticking to a stringent academic English style for manuscript acceptance. Table 1 presents some examples illustrating the requirements of grammatical accuracy.

Journal name	Publisher	Examples	Implicit or explicit request of Standard English
Journal of Catalysis	Elsevier	"spell-checked" or "grammar-checked"	Explicit
Industrial and Engineering Chemistry Research	American Chemical Society	"idiomatic English"	Explicit
Canadian Journal of Chemical Engineering	Wiley-Blackwell	"standard academic formal language"	Explicit
Chemical and Biochemical Engineering	n/a	"have manuscripts checked by *a native speaker* or professional editing services"	Implicit
Oil & Gas Science and Technology	n/a	"correct language and devoided of errors"	Explicit

Table 1. Examples illustrating grammatical correctness and standard English in CE journal guidelines.

Three journals do not explicitly expect grammatical correctness but ask for "idiomatic English" (*Industrial and Engineering Chemistry Research*). These specifications seem to be directed to NNS scientists. Apart from idiomaticity, the orientation towards native-like English expressions is made explicit or implicit in several ways. For example, *Chemical and Biochemical Engineering* specifies that "authors whose mother language is not English "are urged to" [emphasis added] have their manuscripts checked by "a native speaker[1] or professional editing services." The *Coloration Technology* journal asks for manuscripts to be "professionally edited by an English speaking person". Instead of explicitly mentioning NSs, it is interesting to note here how some guidelines adopted careful wording to avoid explicit reference to the "native English speaker" (McKinley & Rose, 2018). They advise potential NNS authors to seek someone who is a fluent English user to edit their texts, for example, "a colleague fluent in English language" (*Turkish Journal of Chemistry*), or "someone fully proficient in English language" (*Reactive and Functional Polymers).* Meanwhile, similar to the guidelines in economic journals (Henshall, 2018), there are also nuanced ways of referring to non-native English speakers to reveal the NS/NNS polarization, indicating that NS standard still remains entrenched, e.g., "authors for whom English is not their native language" (*Hemijska Industrija*), "non-English-speaking authors who do not have a good command of English" (*Asia-Pacific Journal of Chemical Engineering*), "authors for whom English is a second language" (*Journal of Chemical Technology and Biotechnology*), and "authors whose mother language is not English" (*Chemical and Biochemical Engineering Quarterly*).

3.3. Style-related requests for communicative effectiveness

In addition to the common requests for error-free English, 22 journals (16% of samples) have several specifications highlighting the importance of clarity, understandability, and conciseness of English for communicative effectiveness, so that research can be understood by the international scientific community. Typical illustrations in guidelines are presented in Table 2. For example, three journals from De Gruyter directly specify "clear and concise English" (e.g., *Reviews in Chemical Engineering*). The expectation is detailed through a range of alternative expressions. Springer, which comprises 10% of the journals in CE, recognizes the importance of understandability by asking contributors to ensure that their English is "of sufficient quality to be understood" (e.g., *Frontiers of Chemical Science and Engineering, Theoretical Foundations of Chemical Engineering*). Analogously, the

journal *Propellants Explosives Pyrotechnics* stipulates that potential authors make their manuscripts suitable for a heterogeneous readership ("please use a simple and clear style"), and *Energy and Environmental Science,* based in the professional academic publisher of Royal Society of Chemistry's (RSC), expects contributors to "avoid repetition and embellishment" and write in a "clear and concise way"; *The Iranian Journal of Chemistry and Chemical Engineering* calls for a "readily understandable style".

Journal name	Publisher	Illustrations
Reviews in Chemical Engineering	De Gruyter	"clear and concise English"
Energy & Environmental Science	The Royal Society of Chemistry's (RSC)	"clear and concise [...] avoid repetition or embellishment"
Frontiers of Chemical Science and Engineering	Springer	"ensure that English language is of sufficient quality to be understood"
Process Safety Progress	Willey-Blackwell	"A clear, direct writing style is recommended"
Turkish Journal of Chemistry	n/a	"repetitive use of long sentences and passive voices should be avoided"/ "without jargon"
Iranian Journal of Chemistry and Chemical Engineering	n/a	"technical descriptions of methods used should only be given in detail when such methods are new"

Table 2. Examples illustrating style-related requests in CE journal guidelines.

Moreover, the tendency towards understandability is also evidenced by the requests to avoid the repetitive use of long sentences and the passive voice (e.g., *Turkish Journal of Chemistry*). Further, a small portion of journals take additional steps to increase readability, for example, *Iranian Journal of Chemistry and Chemical Engineering* calls for cutting down or minimizing unnecessary technical information ("technical descriptions of methods used should only be given in detail when such methods are new"). In addition, *Turkish Journal of Chemistry* requests the avoidance of jargon, as reflected in the guideline "concise English without jargon should be used". This suggests that journals seek clarity in disciplinary understandings by cutting down inextricable technical details, assuming that their potential readers, as Hyland (2005: 184) says, share the same knowledge background so as to "decode references to specialized methods, instruments, materials, and models".

4. Discussion

In the foregoing section I have drawn upon qualitative data analysis and interpretation to sketch out how the English language is framed in SCI-index

journal guidelines in CE. The findings add new insights into the examination of the journals' guidelines: whereas 'English' may be itemized as a particular linguistic variety, with American or British English dominating international scientific communication, more than half of the journals' guidelines merely adopt the term 'English' without identifying a particular variety. The results are in general accordance with Henshall's (2018) findings, in which fewer than half of the economics journals' guidelines tend to specify the variety of English. The unspecified variety of English and the few requests on Australian or Canadian English could be explained by the fact that recognition of a particular variety of English may contribute to the representation of a journal's identity.

Most of the guidelines still uphold the native standard of English in international scientific publishing. The implicit or explicit request for manuscript editing by native speakers appears to create a distinction between NS and NNS scientists and implies that the latter are less proficient in English and need to be linguistically supported, although this preference does not correspond to Mauranen's (2012) positive outlook, which suggests that editing by NS might not be necessary. The primacy of grammatical accuracy is also acknowledged in Hynninen and Kuteeva's (2017) interview-based findings showing that linguistic correctness is highly valued by NNS scientists. Too many annoying and offensive non-standard grammatical expressions would leave a negative impression on reviewers or journal gatekeepers (Lillis & Curry, 2015). However, considering the *status quo* of a high proportion of NNS writers in S&E disciplines, it is interesting to recognize the discrepancy between idiomatic NS English advocated in journal language policies and actual writing practices where the NNS journal gatekeepers are dominant in the field. In actual practices, a certain number of non-standard forms might be acceptable for publication if they do not hinder understanding (Rozycki & Johnson, 2013; Tribble, 2017), given the fact that there is an increasing number of NNS scientists become reviewers or gatekeepers in S&E fields (Wood, 2001). The situation may "allow for leeway in terms of language correctness and writing style" (Gnutzmann & Rabe, 2014: 36) and thus reduce language demands made on NNS scientists. It further suggests that standard English is negotiable in publication practices if mutual understanding of the tolerance of non-standard forms can be built within the scientific research community, as Hynninen and Kuteeva (2017: 54) point out: "language norms in academic writing are being renegotiated in the process of writing and reviewing the manuscripts for publication".

We have seen that some guidelines expect content clarity and understandability, similar to the study reported by Henshall (2018), in which clarity and intelligibility are also recognized in half of the economics journals. While this might be related to the journals' expansion of readership, the language demands made on journals are inextricably related to a given disciplinary culture. Epistemological and methodological preferences vary considerably across cultures and this factor should not be underestimated in ERPP practices (Hyland, 2013; Kuteeva & McGrath, 2013). Guidelines as such bear upon Gnutzmann and Rabe's (2014) study, which concludes that the strong reliance on experimental data and mathematical models means that science writing is expected to be less *flowery* and *creative* but stylistically intelligible. Clarity and understandability are thus central in manuscript acceptance. Along these lines, a few journals call for the avoidance or reduction of detailed technical procedures or jargon, which illustrates journals' efforts towards strengthening content clarity and understandability. This advocacy in guidelines can be partly explained by Hyland's (2005) metadiscourse taxonomy, in which the 'appeals to shared knowledge' among specialists with the same or similar disciplinary background substitute long explanations about standard methods in a given field, and position the reader within the writer's epistemological community. Results also echo Henshall's (2018) finding that the reduction of jargon or technical information in economics journals' guidelines benefits those who might be less interested in technical details and terminologies that might hinder understanding.

Put together, the guidelines give a glimpse of an emerging pluralistic picture of English in current scientific publishing, possibly because of an increasing participation of NNS authors, journal gatekeepers and the nature of the CE discipline. However, the native-English benchmark (US/British English) still predominates in international publishing within S&E fields. In addition, no guidelines in the sampled journals suggest a complete non-compliance stance towards NS standard guidelines so far. The findings provide evidential arguments to support Heng Hartes and Kubota's (2014) and McKinley and Rose's (2018) conclusion that academia is still a long way off adopting a pluralistic orientation towards academic writing at a lexical-grammatical level.

5. Conclusion and implications

By examining the English required by engineering journal guidelines, this study draws the attention of journal policymakers and academic writing specialists towards considering the efforts invested in improving NNS scientists' engagement in ERPP practices. On the policy-making front, the issue to be addressed relates to the reconstruction of journal guidelines. Jenkins (2011) argues that the global readership international journals aim for makes the adherence to native English standards less meaningful. However, Heng Hartes and Kubota's (2014) study in Applied Linguistics and Gnutzmann and Rabe's (2014) in History suggest that the dominance of standard written English among NSs makes it hard to promote the pluralization of English usage in publication any further. In the case of S&E disciplines, there seems to be a discrepancy between what is described as 'standard English' in submission guidelines and authors' actual writing practices, in which the 'native English standard' is not strictly followed (see Gnutzmann & Rabe's interview findings with scientists, 2014). Therefore, given the recent attention shift from grammatical accuracy to clarity exhibited by some journals (see section 3.2) and the nature of disciplinary cultures in S&E fields, journal gatekeepers appear to seek a more open and flexible stance towards the English language used in the S&E fields, possibly including a reduced need for native-like expressions (Hynninen & Kuteeva, 2017: 62). This stance benefits NNS scientists because it ensures that there is less prejudice against non-native writers in the decision process simply because of their non-standard usage of academic language, and more attention is thus paid to the scientific merits of their research.

Second, although the majority of the journals call for grammar-checking by NSs, it should be noted that qualified proofreaders who have an informed understanding of the role of language in current academic publishing are sorely needed by NNS researchers. from the current emphasis on understandability, it can be inferred that the proofreading practices for ERPP should not be restricted to grammar or spell checking, because journal gatekeepers are gradually more willing to accommodate non-standard usage. The revision process could in this way focus more on content, generic structure, and format issues (Rozycki & Johnson, 2013) and make detailed suggestions to strengthen the manuscript's overall clarity and argumentation. A number of editing strategies, such as post-proofreading conferences with NNS scientists, direct or indirect revisions or summary comments could be adopted to make sure that the feedback is effective (Harwood, Austin & Macaulay, 2012) and support NNS scientists to actively engage in ERPP.

On the front of EAP instructional support, the issue addressed concerns the contribution of teaching English to professional science communication. Writing instructors can explicitly draw novice writers' attention to the description of the English language requested by international journals. Activities can be designed around a careful reading of journal submission guidelines in target journals, so that novice writers can have a systematic and solid understanding of journal language policies; or invite disciplinary NNS researchers to share their experience in manuscript review and publication with particular attention on English language writing. It is hoped that NNS scientists will be able to unravel English language requirements in submission guidelines expected by the international science community about manuscript preparation and review, which is often a notable omission in ERPP training programmes.

Because this study is exploratory and relies on qualitative analysis as its primary source of data, the research it reports has several limitations. First, it is confined to one discipline (Chemical Engineering) and thus we cannot claim that the language-related journal guidelines presented are representative of other soft and hard fields. Possible cross-disciplinary similarities and differences of English language-related requirements in publication policies are worth exploring, as work on this topic is surprisingly scarce. A second limitation is that only journals' submission guidelines were analyzed, and thus it remains to be seen whether their demands coincide with the perceptions of researchers, reviewers and journal gatekeepers with regard to the role of language and actual unfolding of research writing activities in ERPP, as journal policies may not reflect disciplinary writing practices (Kuteeva & Mauranen, 2014). A more complex picture between policies and actual practices could be revealed through the use of other research methods, such as survey-based studies or in-depth interviews with disciplinary researchers and journal gatekeepers. Research of this kind could not only generate theoretical insights into the ELFA (English as a Lingua Franca in Academic Settings) paradigm (Jenkins, 2014) and pedagogical implications for research writing instruction in postgraduate research education, but also encourage doctoral science students and novice engineering scientists who use English in international publication to reflect critically upon their own practices, which will surely help them to advance in their professional development.

References

Ammon, U. (2000). "Towards more fairness in international English: Linguistic rights of nonnative speakers?" in R. Phillipson (ed.), *Rights to Language, Equity and Power in Education*, 111-116. New Jersey: Lawrence Erlbaum.

Bardi, M. (2015). "Learning the practice of scholarly publication in English – A Romanian perspective". *English for Specific Purposes* 37: 98-111.

Belcher, D.D. (2007). "Seeking acceptance in an English-only research world". *Journal of Second Language Writing* 16: 1-22.

Canagarajah, A.S. (1996). "Nondiscursive requirements in academic publishing, material resources of peripheral scholars, and the politics of knowledge production". *Written Communication* 13: 435-472.

Cho, D.W. (2009). "Science journal paper writing in an EFL context: The case of Korea". *English for Specific Purposes* 28: 230-239.

Curry, M.J. & T. Lillis. (2018). *Global Academic Publishing: Policies, Perspectives and Pedagogies*. Bristol: Multilingual Matters.

Flowerdew, J. (1999). "Problems in writing for scholarly publication in English". *Journal of Second Language Writing* 8: 243-264.

Flowerdew, J. (2008). "Scholarly writers who use English as an additional language: What can Goffman's "Stigma" tell us?". *Journal of English for Academic Purposes* 7: 77-86.

Flowerdew, J. & S.H. Wang (2016). "Author's editor revisions to manuscripts published in international journals". *Journal of Second Language Writing* 32: 39-52.

Ferguson, G. (2007). "The global spread of English, scientific communication and ESP: Questions of equity, access and domain loss". *Ibérica Journal of the European Association of Languages for Specific Purposes* 13: 7-38.

Galloway, N. & Rose, H. (2015). *Introducing Global Englishes*. Abingdon: Routledge.

Gnutzmann, C. & F. Rabe (2014). "'Theoretical subtleties' or 'text modules'? German researchers' language demands and attitudes across disciplinary cultures". *Journal of English for Academic Purposes* 13: 1-40.

Harwood, N., L. Austin & R. Macaulay (2012). "Cleaner, helper, teacher? The role of proofreaders of student writing". *Studies in Higher Education* 37: 569-584.

Heng Hartse, J. & R. Kubota (2014). "Pluralizing English? Variation in high-stakes academic texts and challenges of copyediting". *Journal of Second Language Writing* 24: 71-82.

Henshall, A. (2018). "English language policies in scientific journals: Signs of change in the field of economics". *Journal of English for Academic Purposes* 36: 26-36.

Hyland, K. (2005). "Stance and engagement: A model of interaction in academic discourse". *Discourse Studies* 7: 173-192.

Hyland, K. (2013). "Writing in the university: education, knowledge and reputation". *Language Teaching* 46(1), 53-70.

Hyland, K. (2016). "Academic publishing and the myth of linguistic injustice". *Journal of Second Language Writing* 31: 58-69.

Hynninen, N. & M. Kuteeva (2017). "'Good' and 'acceptable' English in L2 research writing: Ideals and realities in history and computer science". *Journal of English for Academic Purposes* 30: 53-65.

Jenkins, J. (2006). "Points of view and blind spots: ELF and SLA". *International Journal of Applied Linguistics* 16: 137-162.

Jenkins, J. (2011). "Accommodating (to) ELF in the international university". *Journal of Pragmatics* 43: 926-936.

Jenkins, J. (2014). *English as a Lingua Franca in the International University: The Politics of Academic English Language Policy*. Abingdon: Routledge.

Kuteeva, M. & L. McGrath (2013). "The theoretical research article as a reflection of disciplinary practices: The case of pure mathematics". *Applied Linguistics* 36(2): 215-235.

Kuteeva, M. & A. Mauranen (2014). "Writing for international publication in multilingual contexts: An introduction to the special issue". *Journal of English for Academic Purposes* 13: 1-14.

Lillis, T. & M.J. Curry (2010) *Academic Writing in a Global Context: The Politics and Practices of Publishing in English*. London: Routledge.

Lillis, T. & M.J. Curry (2015). "The politics of English, language and uptake: The case of international academic journal article reviews". *AILA Review* 28: 127-150.

Martinez, R. (2018). "Specially in the last years…: Evidence of ELF and nonnative English forms in

international journals". *Journal of English for Academic Purposes* 33: 40-52.

Mauranen, A. (2012). *Exploring ELF: Academic English Shaped by Nonnative Speakers*. Cambridge: CUP.

McKinley, J. & H. Rose (2018). "Conceptualizations of language errors, standards, norms and nativeness in English for research publication purposes: An analysis of journal submission guidelines". *Journal of Second Language Writing* 42: 1-11.

Mur Dueñas, P. (2012). "Getting research published internationally in English: An ethnographic account of a team of Finance Spanish scholar's struggle". *Ibérica Journal of the European Association of Languages for Specific Purposes* 24: 139-156.

O'Neil, D. (2018). "English as the lingua franca of international publishing". *World Englishes* 37(2): 1-20.

Pérez-Llantada, C., R. Plo & G.R. Ferguson (2011). "You don't say what you know, only what you can: The perceptions and practices of senior Spanish academics regarding research dissemination in English". *English for Specific Purposes* 30: 18-30.

Rozycki, W. & N. Johnson (2013). "Non-canonical grammar in Best Paper award winners in engineering". *English for Specific Purposes* 32: 157-169.

Salager-Meyer, F. (2015). "Peripheral scholarly journals: From locality to globality". *Ibérica, Journal of the European Association of Languages for Specific Purposes* 30: 15-36.

Swales, J.M. (2004). *Research Genres: Explorations and Applications*. Cambridge: CUP.

Tribble, C. (2017). "ELFA vs. genre: A new paradigm war in EAP writing instruction?". *Journal of English for Academic Purposes* 25: 30-44.

Wood, A. (2001). "International scientific English: The language of research scientists around the world" in J. Flowerdew and M. Peacock (eds.), *Research Perspectives in English for Academic Purposes*, 81-83. New York: CUP.

Bixi Jin received her PhD degree in English Language Education at the University of Hong Kong. She is now affiliated to the School of Foreign Languages, Beihang University. Her research interests include genre analysis, corpus-based academic discourse analysis, and writing for international publication. Her recent work appeared in *IEEE Transactions on Professional Communications*.

NOTES

[1] An anonymous reviewer's comments suggested to me that "checked by a native speaker seems to show very little understanding of what means to write in academic English - not every native speaker can do it". While it is true that being a NS does not necessarily mean being a qualified text editor or have a perfect mastery of academic English, a NS here is construed by default "as a proxy term for long-term residence in the United States or the UK, this being conducive to higher levels of English language proficiency and, thence, to greater control over the formal resources of vocabulary and grammar as drawn on in academic writing" (Ferguson, 2007: 28). In this sense, they are supposed to be qualified to check NNS writing based on their "intuitions of grammaticality" (p. 28).