From the Editors

Preparing Chinese graduate students of science facing an international publication requirement for graduation: Adapting an intensive workshop approach for early-candidature use

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ABSTRACT

As it becomes increasingly important for graduate students worldwide to write about their research in English for international publication, interest is growing in designing preparatory and support courses that effectively introduce the challenges and provide scaffolded practice, while fitting within context-specific constraints, including stage of candidature, level of student motivation, discipline/major mix and course length. Here we present a workshop approach shown to be successful with advanced graduate students actually writing papers, and a series of adaptations designed to make it suitable for graduate students still undertaking preparatory coursework prior to commencing their research projects. A 16 h adapted version was trialled in central China in 2016. Responding to recommendations in the literature, half the course hours were devoted to demystifying the task of article writing, including identifying take-home messages from data, selecting target journals, and writing to meet the criteria of editors and referees. Our decision to devote the remaining course hours to strategies for developing discipline-specific English skills proved congruent with students' pre-course perceptions of their major challenges. Outcomes included strong student engagement with course tasks, enhanced awareness of the links between English learning and the design, conduct and reporting of scientific research, and increased student confidence to write a paper for international submission. The context-specific adaptation process discussed provides an approach that could be useful in other contexts where instruction in writing for publication is needed.

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1. Introduction

To graduate from their PhD programs[1] in science and technology (S&T), students in highly ranked Chinese universities must publish one or more first-authored papers in journals indexed in Thompson-Reuters' Science Citation Index (SCI) or

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[1] And many Masters programs as well. In the case considered here, Masters students must publish at least one paper for graduation, but not necessarily in English. However, publication in English in international journals is preferred because it contributes to the university's publication metrics.

equivalent (Li, 2006b). Their universities rely on these publications to strengthen the institution's position in competitive local and international league tables, such as those produced by the *Times Higher Education Supplement* and Shanghai Jiao Tong University. The rigour of this publication requirement is exceptional in the international arena, and the pressure it places on both students and supervisors is well documented (Li, 2006a, 2012a, 2012b, 2015). Little has been published on systematic approaches to prepare and support Chinese S&T graduate students for this challenge, although small-scale workshops (~30 participants) have been presented with success in a range of contexts where scientists have data and are actively engaged in the article preparation process (Cargill & O'Connor, 2006; Cargill, O'Connor, & Li, 2012). Calls have been made for further development of a collaborative teaching approach involving both scientists and English language professionals (Li, 2012a), such as was used in these workshops. An additional avenue for addressing this pressing need is to teach formal courses to postgraduate students at an appropriate time in candidature, to prepare them as much as possible for the article writing challenge they will face. There is growing interest in EAP as a field in China, evidenced by the recent launch of the Chinese English for Academic Purposes Association (http://www.ceapa.cn/), although theoretical arguments for the widespread adoption of EAP into undergraduate English teaching are engendering debate (Cheng, 2016). The case for implementing EAP at the postgraduate level is perhaps easier to sustain, given the requirement for many students to write for publication in English as part of their degree program. However even in this context there are several issues that create particular challenges, especially where English teachers are asked to prepare S&T students for the publication challenge, but at the commencement of their postgraduate study programs.

These issues were highlighted and clarified in the outcomes of a 4-year (2006–9) action research project conducted at GUCAS (Graduate University of the Chinese Academy of Sciences), Beijing. The aim of that project was to adapt the successful workshops for scientists mentioned above to be suitable for Chinese English teachers to teach to early-candidature research students who did not yet have their own data (Cargill, 2011; Cargill, Peng, & O'Connor, 2011). The final outcome of that study was a set of recommendations for the content and teaching methods for an EAP course for S&T graduate students in an EFL context that took into consideration the issues identified and addressed over the four years of the project. This proposed course was entitled 'Preparing to Write an International Scientific Article' (PWISA). However, to our knowledge, the course has never previously been trialled in its entirety beyond the context of the GUCAS project. Such full trialling is a prerequisite for evaluating its adaptability to the actual constraints of a given teaching context and its effectiveness for EFL graduate students. An ideal opportunity to address this need was presented by an invitation to teach a 16 h course for science postgraduate students over 4 weeks at Northwest Agriculture and Forestry University (NWAFU), Shaanxi Province, China.

Therefore the aims of the study reported here are fourfold: 1) to review recent literature that highlights issues relevant to curriculum design for ERPP (English for research publication purposes) courses in EFL contexts and identify the ways in which our course sought to address these issues; 2) to summarise the development of the PWISA course materials during the 4-year action research project, highlighting the issues and constraints identified and the means adopted for addressing them; 3) to demonstrate the further adaptations required to fit the PWISA blueprint to the NWAFU context, highlighting general questions for consideration in future course design efforts and providing sample teaching materials; and 4) to present evaluative data on the NWAFU course teaching and outcomes, addressing the following research questions:

- What did these early-candidature research students of science in central China identify at the start of the course as the biggest problems they faced in writing an article for international submission?
- How confident were the students to write an article for international submission at the start of the course, and how did their confidence change by the end of the 4 weeks (16 h teaching time)?
- What can be learnt from the students' qualitative evaluative feedback that can inform future development and implementation of courses in Chinese and other EFL contexts, taught with the goal of improving students' skills for writing scientific research articles in English for international publication?

2. Curriculum design for ERPP courses in EFL contexts

A four-domain framework of publishing competence was proposed by Kwan (2010) based on a study of elements that should be included in a course design to support the publication of research articles (RAs) by novice researchers, especially EAL PhD candidates: discursive competence, competence in strategic research conception, competence in strategic management of research and publishing, and competence in publishing the thesis-in-progress. Flowerdew (2013) discussed and expanded on this conceptualisation, highlighting both Kwan's (2010, p. 57) division of the discursive task into two major components ("communicating one's research through an RA" and "communicating with gate-keepers about the RA") and the essential inter-relatedness of the two, since in writing an RA an author will need knowledge of the expectations of editors and referees from the targeted journal in terms of both content and text, as well as skills for communicating with them directly. This requirement of the discursive task underlines the applicability of genre-based approaches in ERPP contexts, as recommended by Huang (2014). To enhance effectiveness in publication-focused situations, however, these approaches need to move beyond an exclusive focus on scaffolding EAL students into developing discipline-specific understanding of language (Mahboob, 2014; Tribble & Wingate, 2013). This is because such courses have been seen by science students approaching publication as irrelevant and time-wasting because they focused only on grammar and were unconnected to science (Huang, 2010). One course design feature that can help address these concerns is the inclusion in Kwan's first domain of specialised