

GETTING RESEARCH PUBLISHED IN ENGLISH: TOWARDS A CURRICULUM DESIGN MODEL FOR DEVELOPING SKILLS AND ENHANCING OUTCOMES

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ABSTRACT

Applied linguists are increasingly asked to help novice authors aiming to publish in the English-language international literature, especially those with English as an additional language. Much assistance is also provided by specialists in the content area of the research, often as individuals working on a single manuscript. We argue that effectiveness could be enhanced if an explicit framework were available for utilising the various expertise sets synergistically. Based on a review of support types, and evaluative data from collaborative workshops run in China, Spain and Australia, we propose a model to support the design of programs to develop novice researcher/authors' skills in writing for publication in English, and a research agenda to support the development of an integrated approach to education and training for this increasingly important aspect of research communication.

KEY WORDS: Research communication, publication, genre analysis, interdisciplinary, EAP, intersecting expertises

RESUMEN

Cada vez con mayor frecuencia se espera que la lingüística aplicada asista a los autores noveles, especialmente a aquellos para los que el inglés es una lengua adicional, en su intento de dar a su trabajo repercusión internacional por medio de la publicación en inglés. Además de los lingüistas, los propios expertos del área de investigación específica también proporcionan una valiosa ayuda en este terreno, trabajando muchas veces en la elaboración conjunta de un manuscrito. En este artículo defendemos que la efectividad podría aumentarse si existiera un esquema explícito que aunara de forma sinérgica las diversas clases de conocimiento. Basándonos en la revisión de los tipos de apoyo y en los datos obtenidos de la evaluación de talleres realizados en China, España y Australia, proponemos un modelo para apoyar el diseño de programas cuyo fin sea desarrollar las habilidades de los investigadores/autores noveles en lo referente a la escritura para su publicación en inglés, así como una programación de la investigación necesaria para apoyar el desarrollo de un acercamiento integrado a la educación y entrenamiento en este aspecto cada vez más importante de la comunicación de la investigación.

PALABRAS CLAVE: comunicación de la investigación, publicación, análisis de género, interdisciplinario, Inglés para Fines Académicos (IFA), intersección de conocimientos.

A substantial record of publications in refereed international journals is recognised as an essential requirement for a career in research or academia. The pressure to begin developing such a record begins early in the research education process, with PhD candidatures increasingly being structured to encourage or even require publication. In both universities and research institutes, publication outputs are measured as a component of productivity, leading to a strong focus on improving the publication rates of individuals and groups. As the vast majority of journals are published in English (Ammon), researchers using English as an Additional Language (EAL) face an additional set of hurdles in achieving the acceptance of their manuscripts for publication. Although there is some debate in the literature about the severity of the issues faced by EAL authors (Canagarajah; Flowerdew; Wood), in practice there is substantial agreement that the issues are often considerable.

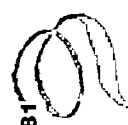
This fact is borne out by the recent rapid growth of commercial providers of assistance to manuscript authors, particularly in the sciences and medical fields (e.g. Editors, n.d.; Paper-Check.Com). In universities, those who help students develop academic writing skills are increasingly being asked to include a focus on skills for writing for publication (e.g. Sengupta & Leung; Sengupta). In addition, many of us whose “business” is English in some sense can attest to the number of requests we receive for assistance at the level of the individual manuscript—either as part of our jobs or as a personal favour. The editor of the *Modern Languages Journal* wrote in a recent editorial that submitters are expected to have their manuscripts read pre-submission by a “strong writer of English” (Magnan 2). Researchers in other fields who are English “native-speakers” also report frequent requests to improve the English of manuscripts pre-submission, and sometimes a level of frustration with the time required and the perceived effectiveness of the practice. St John (116) reported of Spanish researchers writing manuscripts in English: “Whatever the route employed, a native or near native speaker of English was involved at some stage to check and edit for language errors,” and the situation has not altered greatly since that time.

Our concern is with what can be done in addition to this “check and edit” to develop EAL authors’ own skills for writing manuscripts in English. Such enhanced skills would increase the efficiency and effectiveness of editorial work done by others on individual manuscripts, as well as enhancing the capacity of EAL researchers to participate effectively in their international research communities. In this paper we consider the range of Author-Support Providers (ASPs) operating to assist novice EAL authors before manuscripts are submitted, and propose a more strategic approach to integrating them effectively. Our ultimate aim is a model for designing training interventions that could be effective in the range of different contexts internationally where English is a foreign language (EFL) and publication skill development is required.

In the sense in which we propose to use the term, author-support provider (ASP) includes the types of people or processes described in Table 1.

TABLE 1. CATEGORIES OF AUTHOR-SUPPORT PROVIDER (ASP) ABLE TO CONTRIBUTE TO INTERNATIONAL PUBLICATION OUTCOMES FOR EAL RESEARCHERS IN EFL CONTEXTS

PROVIDER CATEGORY	RESPONSIBLE FOR	EXAMPLES	ISSUES
1. Content supervisors	Standard of the research; improving publication outputs	Academic supervisors/ advisors, heads of dept/ research group/ lab or their delegates	May not publish in English/lack skills to teach article writing; very time pressured
2. English language teachers	Improving English competence	Teachers of courses in a language dept. or private language school	May be unfamiliar with aspects of English relevant to specific disciplines and with research article genre
3. English language editors	Improving accuracy/ appropriateness of vocabulary and grammar of document in hand	Provided in-house or private fee-for-service, online services also available	Availability; expense; discipline-specific English knowledge may be lacking; may be limited chances to negotiate meaning with authors; authors may learn little of future use
4. Guides to research genres	Teaching discipline-specific article structures and related language features	Applied linguists with genre expertise; research communication consultants	Relevant expertise may be unavailable or difficult to identify in the context
5. Guides to publication processes	Teaching re submission process, referee criteria, negotiation with editors, impact factors	Editors/referees of int'l journals, staff of publishing houses, experienced published authors/referees	Specific examples of criteria and letters/responses can add to effectiveness
6. Native English-speaking discipline colleagues	Advice on clarity of message and data presentation, improving English accuracy	Overseas visitors, contacts from conferences or own overseas trips	Level of imposition very high; may be unsustainable beyond once
7. Strategy advisors	Advice on journal to target, writing to attract right readers, place of the research in int'l discipline community	Head of dept/lab or visiting researcher with relevant experience	May lack skills to teach article writing; often time-pressured
8. Training coordinators	Identifying training needs and priorities, finding providers, arranging training	Human relations depts., international affairs sections, research managers	May have little understanding of educational factors involved



We have not included native English speaking co-authors in the list, as our focus in the paper is support for EAL authors from outside the author team. In addition, English-speaking co-authors may edit or revise a manuscript without necessarily passing on any understanding or skills which can be sustained by the EAL practitioner. Moreover, the number of variables operating around co-authorship make it difficult to study. Anecdotally, for example, we are aware of scientists being invited to join an author team when their sole or major contribution to the paper will be in improving its written form in English, and of a journal editor recommending that a Chinese author try to find an English-speaking person to be a co-author, subsequent to first submission, with the aim of improving the English in the manuscript. These would seem to be strategic responses to the pressures on EAL manuscript authors; they deserve further study but are not an explicit focus of the present discussion.

Our perspectives in venturing into this relatively un-researched niche should be explained at the outset. Our interest is in optimising the effectiveness of intersecting expertise sets in terms of developing publishing skills for EAL researchers. We represent a productive collaborative relationship between members of the "language-focused" and "content-focused" ends of the continuum represented in the list of ASPs above (an EAP practitioner and a publishing, refereeing scientist), formed as a result of idiosyncratic personal and professional histories. This collaboration has led to the development of a highly effective pedagogy, an approach to publication skill development that relies on collaborative provision in an intersecting expertise framework. Participant evaluations of the approach implemented through workshops in Vietnam, China, Spain and Australia have been extremely positive (Cargill; Cargill & O'Connor), and considerable interest has recently been expressed at institutional levels in broadening the availability of the benefits it provides. However, our approach can involve importing a workshop presentation team of an EAP practitioner plus three content specialists to work with 30 EAL researchers for 5 days, and this is an expensive undertaking. Two questions arise: 1) What is the set of conditions that would result in value-for-money from full implementation of our collaborative-colleague workshops? 2) How can the insights gained from our experience be applied effectively in different contexts and particularly at an institution-wide or systemic level, where the need to develop publication rates is often a pressing concern?

Thus we aim in this paper first to tease out what has been learned through the conduct and evaluation of these collaborative workshops. We then use this learning to propose a model to inform curriculum design and program delivery. We seek to do this in terms that accommodate different world-views about the relationship of language to the content it conveys and constructs, taking a lead from the recommendations of Tajino, James and Kijima regarding the usefulness of soft systems methodology for program design in EAP. It is likely that people responsible for initiating action to improve publication rates, for example, will not be reading the applied linguistics literature for pointers to good practice, so it is necessary to describe and define situations and outcomes in terms that will be accessible to a wide cross-section of stakeholders.

THE COLLABORATING-COLLEAGUE PUBLICATION SKILLS WORKSHOPS, 2000-2005

These workshops have now been run eight times in three EFL countries with a total of 187 participants (Table 2). Participants have responded enthusiastically to the workshop format and materials (see Cargill; Cargill & O'Connor). Measuring the effectiveness of the workshops is not straightforward, given that the quality and interest of the research written about in the manuscript will be the final decider of acceptance or rejection (Gosden). In spite of the temptation to track publication outcomes for participants and discuss them as an outcome of the workshop (e.g. McGrail, Rickard, & Jones), to do so leaves out of the picture not only the quality and novelty of the research being written about, but also other forms of assistance that may contribute to publication success, including from the variety of ASPs mentioned above. The surrogate measure of outcome we have used since 2003 is participants' confidence level, pre- and post-workshop. Marked increases have been recorded in this measure for all workshops in terms of confidence to write a manuscript in English, and all since 2004 (when the question was first included) in regard to confidence to deal with the publication process in English.

TABLE 2. COLLABORATING-COLLEAGUE PUBLICATION
SKILLS WORKSHOPS IN EFL CONTEXTS, 2000-2005

COUNTRY	Yr	PARTICIPANTS /LENGTH	LOCAL SPONSORSHIP	COLLABORATORS ⁵		CONTENT FIELDS OF COLLABORATORS	TRAINING INCLUDED? ⁶
				AUSTRALIAN	LOCAL		
Vietnam	2000	11/2d	NACESTID ¹	1	1	Ag'l Sciences	N
China x2	2001	29&15/5d each	CAS ²	2	0	Ag'l&Env'l Sc	N
China	2002	20/8d	GGERI ³	3	0	Ag'l&Plant Sc	Y
China	2003	30/6d	CAS ²	3	0	Ag'l&Env'l Sc	N
China	2004	30/6d	CAS ²	3	2	Env'l Sciences	Y
Spain	2005	22/4d	ULL Dpto. Filología Inglesa y Alemana ⁴	0	2	Psychology	Y
China	2005	30/5d	CAS ² Inst. of Botany	3	0	Botanical Sc	Y

¹ National Centre for Scientific and Technological Information and Documentation, Hanoi

² Chinese Academy of Sciences

³ Gansu Grasslands Ecological Research Institute, Lanzhou University

⁴ Universidad de La Laguna, Tenerife, English & German Philologies Department

⁵ Collaborating with M. Cargill as team leader

⁶ Did the workshop include a component of train-the-trainer?

SALIENT FEATURES OF THE WORKSHOPS

Analysis of participants' evaluation responses and presenters' post-workshop reflections combine to indicate that the salient features of the workshops contributing to their success are the following (after Cargill and O'Connor).

1. Task-based approach (Brinton, Snow & Wesche): Participants bring a complete set of results or an early draft and are expected to write or revise their own manuscript as part of the workshop process.

2. Basis in genre pedagogy (Cope & Kalantzis): The aim is to provide participants with an analysis framework arising from genre analysis (GA) and EAP pedagogy, and basic skills in applying the framework to well-written published articles in their own discipline as a lifelong learning tool. One or two relevant example articles are selected by the presenting team (EAP practitioner and expert/s in the content of the participants' discipline/s) and participants are asked to read them in detail before the workshop. A diagrammatic representation of article structure is presented early in the workshop (Weissberg & Buker) to facilitate identification of similarities to and differences from it in the example articles—to date our workshops have not been run with writers of humanities-type argument papers, so a focus on the IMRaD structure has been appropriate (Introduction, Method, Results and Discussion). Then, as each section of an article is discussed in detail, moves and steps as identified in the GA literature (e.g. Samraj; Swales) are presented as a descriptive exercise (rather than prescriptive teaching) and participants compare these with what they find in their example article. The sections are dealt with in the order Results, Methods, Introduction, Discussion, followed by a focus on abstracts. When Results sections are the focus, the content experts also present and discuss relevant aspects of data presentation, such as the preparation of tables and figures that highlight the point made by the data and contribute clearly to the “story” of the paper. We emphasise that the Results section “drives” the paper, and should therefore be written first.

Class discussion follows of possible reasons for variations found between the GA outcomes and the example article/s; these are often discipline-specific issues which are pinpointed by the content-expert presenters. In-class writing time is then provided for participants to begin drafting or to revise the relevant section of their own paper. The presenters are available for individual consultation on issues as they arise, calling on language and content expertise as appropriate.

3. Referee criteria as overarching point of reference: A composite set of referee criteria is presented early in the workshop, constructed from sets available to the content-expert presenters (all of whom referee for and/or edit journals in the field) and relevant to the participants' discipline/s. These criteria are used alongside the genre analysis results for each section, using questions such as “Where in the article do you think a referee would expect to find evidence on this criterion?” and “Where in the English sentences do the authors of this article make it clear that they are presenting evidence relevant to this criterion?”

In addition, one component of the workshop focuses explicitly on the process of submission and subsequent negotiation with editors around referee reports. Categories of referee comments are presented, along with strategies for responding to each and examples of possible response wordings. These are based on an analysis of available editorial correspondence (O'Connor, in preparation).

4. Developing sentence-level English and discourse strategies for expressing researchers' meanings: On Day 1 of the workshop, when the methodology outlined above is presented to the participants, we also address explicitly our approach to English language development. Both general to specific and specific to general approaches are used. Wall charts are used for vocabulary and structures highlighted as useful or problematic during analysis of example articles or individual consultation. “Sentence templates” are included there (sentence structures that could usefully be reused with different noun phrases inserted). Aspects of English usage particularly relevant to specific article sections are taught or reviewed when that section is discussed: e.g. passive constructions with Methods, use of definite and indefinite articles and the placement of “given” information before “new” information with Introductions, modal verbs of certainty and tentativeness and hedging with Discussions. In addition, participants are introduced to a simple concordancing program (ConcApp, <<http://www.edict.com.hk/concordance/>>) and the concept of constructing a corpus of articles from their own discipline to use as a source of data for ongoing language learning (Cargill & Adams).

LEARNING FROM THESE WORKSHOPS RELEVANT TO CONSTRUCTING A CURRICULUM MODEL

SALIENT FEATURES OF TARGET AUDIENCES FOR TRAINING PROVISION: RESEARCH EXPERIENCE, ENGLISH PROFICIENCY AND SHARED DISCIPLINE BASE

When participants' evaluations of the workshop have been correlated with information about their backgrounds, the only significant correlation with gaining of best benefit has been that the participant has completed a research degree (Cargill & O'Connor). Completion of a research degree represents a rigorous research training, including the completion of an entire project to the point of final reporting. When participants in the Chinese workshops were still enrolled in their research degrees their self-perceived benefit was likely to be lower. In addition, a desire for a more even level of research experience among the participants has been recorded in responses to open-ended evaluation questions asking about possible improvements to the workshops. We have noted that less-experienced participants have been less likely to value and benefit from the detailed teaching about strategies for engaging with referee reports, a workshop feature highly valued by many of the more experienced participants. These findings suggest that the effectiveness of training could be enhanced by providing it separately for research students without previous whole-of-project research experience and for other, more experienced researchers. This

suggestion echoes that of Okamura, that junior and more experienced researchers may need different guidance. Table 3 shows the categories of target audience we propose as being salient for designing a training intervention.

TABLE 3. CATEGORIES OF TARGET AUDIENCE FOR PUBLICATION SKILL DEVELOPMENT

AUDIENCE CATEGORY	DESCRIPTION	EXPLANATORY NOTES
1. Research degree candidates: early stage	Enrolled in HDR*, still planning/ conducting their research, no completed data/results package	May still lack English proficiency required for graduation from their degree program
2. Research degree candidates: advanced	Enrolled in HDR*, have package of completed results ready for writing as a paper, but no extensive experience in research	More likely to approach English proficiency level needed for graduation
3. Practising researchers	Research training completed, including one project to publication stage, have usually published in L1 previously, may have published in English	Can include Category 2 if have extensive research experience at whole-project and L1 publication levels
4. Input providers	Have partial skill-set for teaching pub. skills, want to understand whole process or broaden own skills	Includes editorial staff of journals published in English in EFL contexts
5. Training coordinators/other stakeholders	Seeking information to inform decisions on training for their group/institution	Research administrators, managers, senior academics, human resources staff

* HDR –Higher Degree by Research = PhD, other doctorate or Masters by research

English proficiency is obviously another important consideration. It has not been practical for us to stipulate an English proficiency level that participants must have before attending our workshops, and our current approach is to describe what participants will be required to do in English during the workshop and allow self-selection on this basis. However, the requirement that PhD candidates in many Chinese institutions must have an article published in a journal listed in the Science Citation Index before award of their degree (Li) has meant that some candidates enrol in our workshops in spite of doubts about their ability to cope with the English. Some participants have reported that both their productive and receptive English skills have improved markedly over the period of the workshop, but others have indicated that the English used was too difficult for them. A more even level of English proficiency across participants has also been suggested as a possible improvement to the course. Clearly this is an element that must be considered seriously in planning for publication skill development, but it is not easy to manage.

The format of our collaborating-colleague workshops requires that participants be working in disciplines congruent with those of the content experts. However, on several occasions the local organisers have filled workshop places by re-

cruiting participants outside the range we had indicated could be covered appropriately by the Australian content-experts in the presenting team. Where this has been the case, participants have been less satisfied and suggested a closer match as a desirable improvement (Cargill & O'Connor). An example was a presenting team covering plant physiology, soil science and ecology, and a workshop cohort that included astronomers and palaeontologists. The subject matter of the latter participants could be handled satisfactorily because of similarities in methodological approach, but the astronomers were aiming to write papers of a very different structure. In contrast, the workshop in Spain in 2005 was within a single university department, with a native-speaker content expert (local) from the same discipline and department, and outcomes were highly satisfactory (Burgess, in preparation). A particular issue with discipline mix in our workshop format is selecting the example article/s to be used for in-class analysis. When we teach this type of workshop in an English-speaking context, participants each bring their own example paper from their own discipline, preferably from the journal they wish to submit to, and in some EFL contexts this may also be an appropriate strategy. In others the reading load would be impractical, and the effectiveness of class discussion overly limited by having so many variations to discuss and draw conclusions from. Participant English proficiency is a prime determinant.

Clearly the issue of discipline fit between content-expert presenters and participants must be part of the initial planning discussions when an intersecting-expertise approach is to be used. This requires some level of understanding of the basis of the training by those making the arrangements, as the fit between training type decided on, participant backgrounds and trainer team has been shown to be a crucial factor in the success of the outcomes. When the organisation of this kind of training is entrusted to a department such as human resources or international affairs, where understanding of the pedagogic implications of ad-hoc modifications may be limited, our experience indicates that mismatches are likely to occur. It is hoped that the model to be proposed here will help enhance the effectiveness of initial planning.

SALIENT FEATURES OF THE TRAINING CONTENT AND WORKSHOP CONDUCT RELEVANT TO MODEL CONSTRUCTION

Interacting with the characteristics of the participants in our workshops have been the content we have delivered and the methodology we have used, both to develop the materials and to run the workshops. A focus of our previous paper evaluating the workshops (Cargill & O'Connor) was to discover the particular contribution made to the undertaking by using a collaborating-colleague presenter team. One conclusion was that such a team brings complementary content knowledges and skills. We have attempted here to package this content into a set of components that can be described clearly enough for general understanding (Table 4). A further contribution, however, was found to be that the embedded participation of the content-experts enabled a closing of the "genre circle," a concept pecu-

liar to the applied linguist team member's discourse community. This closing of the circle enabled issues underlying textual choices in the example articles and editorial correspondence being analysed, which could not be satisfactorily elucidated on the basis of the text alone, to be clarified effectively for the participants. To a certain degree these insights can be incorporated into workshop materials in a way that makes them available to non-content-experts who may use the materials subsequently. However, new instances of similar issues would continue to need content-expert input for resolution.

For successful implementation of the full collaborative-colleague workshops, it is necessary to ensure that the content experts have a solid grounding across the disciplines of the participants' research, understanding of new and emergent research methods, and experience as referees and editors. The former skills assist in rapid understanding of the content of manuscripts during one-on-one tuition in the classroom setting. The experience of content experts as referees/editors aids in the rapid reconstruction of the language and content of manuscripts to present the research in the form most acceptable to the gatekeepers of scientific publishing - journal referees and editors.

TABLE 4. CONTENT COMPONENTS OF TRAINING TO DEVELOP THE CAPACITY OF EAL RESEARCHERS TO PUBLISH THEIR RESULTS INTERNATIONALLY IN ENGLISH

COMPONENT TITLE	DESCRIPTION OF CONTENT
1. The publishing process	Raising awareness of the role of international publishing and the processes of submission, review and editorial decision-making (including raising issues around impact factor and publicising referee criteria)
2. Research design for publication purposes	Teaching about the relationship between the referee criteria, the design and conduct of the research, including for non-humanities fields the conduct of the analysis and the presentation of results in figures, tables or other appropriate formats
3. Research article structure	Teaching about the relationship between acceptability for international publication and the structure of the article, the information included in each section and how the information is structured and presented in English
4. Writing the argument	Teaching use of the EL discourse-level features for effectively high-lighting, developing and linking ideas in sections and paragraphs of research articles in the relevant discipline area
5. English for publication purposes	Teaching use of the EL vocabulary, grammar and sentence structures that carry the meanings and subtleties of emphasis required to express the information and argument in the various article sections and in negotiation with editors
6. Manuscript editing	Editing drafts for accurate usage of the relevant EL vocabulary, grammar and sentence structures
7. Mentoring: manuscript preparation in English	Mentoring novice authors on their EL writing of a particular manuscript at the levels of information structure, discourse and sentence.
8. Author-editor negotiation for research publication	Teaching about the process of negotiation between editors and authors in English regarding referee comments and revisions required, and about strategies for engaging in the process effectively

9. Mentoring: publication strategy	Mentoring novice authors on accurate and strategic presentation of their research results in a particular research article and their responses to journal editors for that article
10. Publication development coordination	Developing site- and situation-specific ways for all the relevant model components to be provided effectively by the most appropriate available people within the resource constraints operating

The embedded participation design we use presents clear differences with a "talking heads" approach, where individual presenters work with participants on their own individual area of expertise, but are not present for the rest of the workshop. In our embedded approach, the team leader role is taken by the EAP practitioner, individual presenters take the lead for workshop segments related to their particular expertise, and all presenters are expected to interject whenever they have a relevant point to contribute. This interplay models for participants the role expected also of learners, and leads to high participation levels, even in China where such behaviour is not usually expected of students.

An alternative approach we have used for research students without completed data is a lecture-type program over 3-5 hours, with a stated aim of alerting them to issues they will need to address in the design and conduct of their research and as they prepare to write. This involves the straightforward presentation of some materials from the full workshop, which are based on genre analysis of relevant article types and on referee criteria for accepting articles. It does not require either the embedded participation of the content-experts or the task-based approach. The limited research experience and broad discipline mix of these audiences has made this an appropriate approach—but the outcomes that can be expected are more limited. Thus the overall pedagogic design of any training intervention will need to be an important component of the model we propose (Table 5).

TABLE 5. DELIVERY OPTIONS FOR DEVELOPING INTERNATIONAL PUBLICATION SKILLS IN LOCATIONS WHERE ENGLISH IS A FOREIGN LANGUAGE

OPTION	EXPLANATORY NOTES	GOOD FOR	ISSUES
1. Stand-alone written materials	In L1, English or mixture; hard copy or online via internet or intranet	Self-study by highly motivated novices; Teaching materials for in-house courses	Availability of suitable materials; Fit with individual research being written up will vary; Language accuracy not covered effectively; Feedback options lacking
2. Lecture presentations	In L1 or English; prepared notes made available to attendees	Large participant numbers, more generic types of information	Participants may be unable to apply learning to own draft without further assistance

3. Workshops	Participants learn from other participants and through completing tasks as well as from presenter and materials	Limited numbers; participants who are suited to the selected workshop tasks and comfortable with the process	Collaborative and task-based presentation possible and effective; Time-intensive; methodology may be unfamiliar to target audience
4. Individual consultations	Face-to-face meetings; Email consultations	Detailed feedback on a particular manuscript	Expensive/time-consuming; effectiveness depends on expertise of consultant; may have less focus on skills for ongoing use
5. Information seminar	Single session outlining issues, results of previous training, the use of the model to support decision-making	Administrators, rsch managers charged with improving publication outputs, HR people responsible for training	Getting access to such people in an institution

ELEMENTS OF THE PROPOSED MODEL

Following Schwom & Hirsch, we would suggest that global strategies suitable to a particular context are needed, as well as text-based interactions. On the basis of the outcomes discussed above, we propose that a model to support the design and delivery of effective training for developing international publication skills in EFL settings would need to include consideration of the following factors:

- Who make up the target audience for the training intervention? (delineated according to their research experience and their role in the training process (Table 3), and also their English proficiency and their discipline mix)
- What outcomes are desired from the training?
- What constraints (time, personnel, funding, external requirements) are operating that affect the pedagogic design options for the training? (Table 5)
- What content is to be included? (Table 4)
- What types of providers are available in the context? (Table 1)

COMBINING THE MODEL COMPONENTS

As an initial step, the Target Audience categories (Table 3) can be used with the Delivery Options (Table 5) to produce the following matrix.

A second matrix could then be constructed for any given context by considering the desired training content (Table 4) and the available author-support provider categories (Table 1); space limitations prevent us presenting an example here. However, it is worth noting that in the Chinese contexts where we have presented our collaborating-colleague workshop, the use of such a matrix would be

MODEL MATRIX 1. DELIVERY RECOMMENDATIONS FOR A RANGE OF TARGET AUDIENCES FOR PUBLICATION SKILL DEVELOPMENT

TARGET AUDIENCE ^a	SUGGESTED DELIVERY MODE/S ^b	ISSUES TO BE CONSIDERED
1. Research degree candidates: early stage	2. Lecture presentations 1. Stand-alone written materials	Different presenters for different content sets possible; some can be in L1; broader discipline mix OK but must be communicated to presenters ahead of time
2. Research degree candidates: advanced	3. Workshops; 2. Lecture presentations 1. Stand-alone written materials	English competence; discipline mix of audience; if full workshop combined with Audience 3 is chosen, additional induction session will be needed for the Audience 2 participants
3. Practising researchers	3. Workshops; 4. Individual consultations 1. Stand-alone written materials	English competence; discipline mix of audience; these are the prime candidates for best benefit from the full collaborating-colleague workshop approach
4. Input providers	5. Information seminar; 3. Workshops (as trainee trainers) 1. Stand-alone written materials	Additional training segments can also be added to workshop presentation for this audience
5. Training coordinators/ other stakeholders	5. Information seminar	

^a See Table 3 for details of category descriptions

^b Numbering refers to Table 5, where descriptions of the modes can be found

able to highlight the expertise that is missing locally—content components 3, 4, 5, 7 and 8 (Table 4)—which could be related to a lack of ASPs in Categories 4, 5 and 7 (Table 1). This information could contribute to the design of an effective one-off training intervention in the short-term, but also to longer-term strategies for a department or institution that could involve the need for recruitment or training of suitable additional ASPs. As shown in Table 1, we have included training components where possible in our workshops to date; take-up of the approach into local programs has been minimal in the Asian contexts, but stronger in Spain (Burgess, in preparation). Similarly, in some contexts the expertise needed to teach particular content components may be available but may not have been considered previously to have a contribution to make. This could be the case where, for example, scientists have been of the opinion that applied linguistics expertise had no role to play in publication skill development beyond improving the linguistic accuracy of a final draft.

The model components also enable us to answer the first of the two questions posed earlier: What is the set of conditions that would result in value-for-money from full implementation of our collaborative-colleague workshops? The answer has the following three components:



- Participants should belong to Audience Category 3 (Table 3) and have English proficiency levels suitable to the demands of the workshop.
- The initial planning must be able to ensure a close match between the discipline base of the participants and that of the content expert presenters.
- Arrangements should be in place for the workshop to be used as a training opportunity for relevant local providers, so that the model can be applied to the context and locally relevant action taken for the future.

If these conditions cannot be met, it is likely that a different combination of delivery mode, provider type and content components will be more appropriate to meet the needs of the situation.

PRIORITIES FOR FUTURE RESEARCH

We present this set of components as a first step towards a model to support the design of training interventions that could be effective in the range of different EAL contexts internationally where publication skill development is required. One avenue for future research towards this outcome would be to apply the model components in a range of contexts and to use an action-reflection methodology to identify, implement and assess changes in response to the contextual variables encountered. A question that could also be investigated is whether the need for publication skill development could serve as an impetus to help break down the separation of English language teaching from the teaching of scientific and other content specialities in many university contexts. Additionally, it may be possible to pursue solutions collaboratively with journal publishing houses. In a recent survey of editors of Elsevier journals (Elsevier), a strong majority of respondents supported the following contention: "The publisher should facilitate language polishing, training for non-native English authors or work proactively with universities. These activities add value to the publishing process."

A further question relates to the most cost-effective way to consider a publication skill development agenda. Is it better to rely on limited-scope ad-hoc interventions only, or is it preferable to consider a wider range of issues and proceed strategically to address as many as possible, using innovative combinations and collaborations of providers? For this to be possible, communication strategies will be needed that enable effective communication between holders of widely different expertise sets that could potentially contribute to successful outcomes. We hope that the model components presented here, based on one effective collaborative workshop approach, can contribute to this communication and ultimately to innovative new ways to take advantage of intersecting expertise sets in the pursuit of better access to international publication for EAL authors.

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