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LANGUAGE-CONTENT PARTNERSHIP AT CHINESE UNIVERSITIES: A REVIEW OF PRACTICES

Abstract

Language-content partnership or the interdisciplinary collaboration between English teachers and content teachers is an issue of wide interest in English for Specific Purposes (ESP) and other pedagogical traditions where there is a dual concern with developing learners' language skills and disciplinary content knowledge. While the English-medium literature on language-content partnership has been growing, a fuller picture of what is happening on a global scale cannot be obtained without exploring academic literature published in a language other than English. In this paper, we report a review study that was based on a body of Chinese literature purposefully collected through systematic searching. Content analysis of the 36 identified Chinese papers was conducted to address the research question "How is the collaboration between English teachers and content teachers practiced at Chinese universities?". Our findings on the Chinese scene will be enlightening for practitioners, researchers, and policy makers in other contexts who are interested in exploring the educational value of language-content partnership.

Key words

language-content partnership, interdisciplinary collaboration, collaboration between language teachers and content teachers, Chinese universities.

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1. INTRODUCTION

In the early 1990s, Barron (1992: 1) wrote: "Many examples of co-operative projects between ESP units and subject departments have been reported in the ESP literature since Selinker's seminal paper appeared in 1979." The central message in Selinker's (1979) "seminal" paper is that language specialists need to collaborate with subject lecturers to gain insights into the "specialized knowledge" (Ferguson, 1997) or the discourses and practices of the subjects they work with. In making his observation, Barron (1992: 8) depicted "a co-operative continuum" to characterize subject teachers by the degree of their involvement: "informant - consultant - collaborator - colleague". From surveying reports on cooperative projects in ESP mostly published in the preceding decade or so, Barron (1992) was able to list subject teachers as "informant" in 10 cases, "consultant" in 7 cases, "collaborator" in 8 cases, and "colleague" in 7 cases, with these reports coming from across the continents and featuring a wide range of disciplines, and with the cooperation taking place in various stages or a combination of stages in a curriculum (e.g., needs analysis, rhetorical feature analysis, materials development, course design, teaching, and assessment). Barron's (1992) continuum would be echoed by Dudley-Evans's (1998: 8) characterization of three levels of partnership between language and subject teachers: cooperation ("involves language teachers taking initiative, asking questions, and gathering information about content subjects"), collaboration ("brings language and subject teachers to work together outside the classroom to prepare students for particular tasks or courses"), and team-teaching ("involves both parties working together inside the classroom in a team-teaching format"). Hyland (2022) similarly named three ways in which content experts could work with language teachers; as an informant, as a consultant, or in direct collaboration through team-teaching or "through a linked course which runs parallel with the ESP course" (Hyland, 2022: 213).

Three decades on since Barron's survey of literature, cases of interdisciplinary collaboration between language and subject teachers have continued to rise and the significance of such partnership has been widely recognized. In a review of relevant English-medium literature, Li (2020) discussed a range of themes derived from it: theoretical perspectives on the need for interdisciplinary collaboration, motivations for it and its slow development as a trend, a continuum of partnership, team teaching, and the benefits of the partnership. In a follow-up review, Li (2021) focused on culling insights that could potentially inform the research and practice in the Chinese context, highlighting a cluster of messages conveyed in the literature: the partnership benefits both language teachers and content specialists; misconceptions of the role of language specialists potentially poses a challenge to the partnership; content specialists have varied attitudes towards collaboration with language specialists; language specialists and content specialists provide training support to each other in their collaboration; and finally, institution-level actions are needed for facilitating interdisciplinary collaboration.

While in the two literature reviews mentioned above the literature surveyed predominantly features English-speaking contexts, the reviews showed that the interest in language-content partnership is global, echoing what Barron (1992) demonstrated in his review three decades before. Significantly, beyond the traditional focus in ESP, such partnership has witnessed intense advocacy and strong development in the new pedagogical contexts of EMI and CLIL, which now increasingly characterize the tertiary sector in Europe and other non-Anglophone countries. To illustrate, in a special issue of ESP Today in 2017 (vol. 5, issue 2), the guest editors Zhang and Chan (2017) pointed out that underlying all six articles included in the issue (featuring mostly European authors), "a common thread throughout the papers is the need for close collaboration between the EFL/EAP/ESP English language specialists and the discipline experts" (Zhang & Chan, 2017: 139). In one of the articles, for example, Woźniak (2017) reported that at a private university in Spain, ESP teachers played the dual roles of being ESP teachers and CLIL tutors, both learning from content teachers about the discourses and practices of disciplines to inform their ESP teaching and providing support to content teachers through one-on-one sessions and workshops.

Although the existing English-medium literature contains a good number of reports of successful interdisciplinary collaboration between language and content teachers in a variety of pedagogical contexts, such collaboration has not yet become commonplace. In particular, sustainable partnership where subject teachers have a relatively high level of involvement seems to have been rare. Not too long ago, Lasagabaster (2018) concluded from his observation at an ICLHE (Integrating Content and Language in Higher Education) conference held in Brussels in September 2015: "in all European contexts where EMI experiences are currently in force, team teaching is a rarity" (Lasagabaster, 2018: 402). Still, we believe a fuller picture of what is happening on a global scale in terms of language-content partnership cannot be obtained without exploring academic literature published in a language other than English. China's case is worth examining for China can be regarded as a "typical" case in terms of the rationale for a single case study (Yin, 2009: 48) of language-content partnership. This is so because China represents a prominent case of traditional separation between language departments and subject disciplines (Cargill et al., 2012; Li, 2023), and English teachers, in particular those teaching students across disciplines, being "often perceived as instructors rather than academics" (Cheng, 2016: 98), have a relatively low status compared with both content teachers in other disciplines and their colleagues teaching English majors (who are more likely to develop a research profile and publication record in applied linguistics, English literature, or translation studies). Nevertheless, with the ongoing push for the EGP-to-ESP/EAP paradigm shift (e.g., Yu & Liu, 2018) and the rise of bilingual/EMI courses at Chinese universities (e.g., Galloway & Ruegg, 2022), language-content partnership has become an issue of significance for English teachers and content teachers alike. Without digging into the Chinese-medium literature, to what extent and in what ways language-content partnership has been

an issue of discussion or has played out in the Chinese context would remain unknown and occluded to the outside world.

In the study to be reported in this paper, we examined a body of Chinesemedium academic literature to look for evidence of actual practices of the collaboration between English language teachers and subject or content teachers at Chinese universities. In the following, before detailing our study, we will first present an overview of some proposals made by Chinese English teachers over the past two decades or so in terms of collaborating with discipline specialists, as seen in the Chinese-medium literature.

2. CHINESE CONTEXT

Over a decade ago, we pointed out that the traditionally compartmentalized curriculum and bureaucratic structure at Chinese universities were not conducive to the exchange between language and content specialists, so that for a very long time their lifeworlds remained separated (Cargill et al., 2012). In Li et al. (2019) a case of team-teaching at a Chinese university was reported, conducted by a language professional and a scientist, who were an Australian duo teaching a short course on writing for international publication (i.e., an English for Research Publication Purposes or ERPP course) to a class of graduate students on invitation. It seems that we have not been able to identify other English-medium reports featuring comparable cases in a Chinese setting. In view of this, we believe Chinese-medium academic literature needs to be explored to learn about the Chinese scene.

A dive into the Chinese literature generates some preliminary insights. Above all, there is indeed a body of literature addressing the question of the collaboration between language and content teachers, but there seem to be more proposals than reports of actual implementation of such collaboration. In addition, this largely teaching- or curriculum reform-oriented literature seems to have a relatively peripheral status compared with research-oriented literature, by mostly appearing in modest journals, much like what was found earlier with a body of Chinese literature reporting on English academic writing instruction at Chinese universities (Li & Ma, 2018). A combing through the Chinese literature reveals that attention to the issue of language-content partnership emerged in the wake of a call for a paradigm shift from EGP to ESP in the English language curriculum at Chinese universities at the turn of the 1990s-2000s (Li, 2001). In a line of reviews/theoretical discussions (e.g., Huang & Xu, 2020; Li, 2001; Ye, 2014), the concept of collaboration between language and content teachers is introduced, and its overseas origins and developments are outlined, with relevant influential English literature cited and cases of team-teaching described (e.g., Dudley-Evans, 1998). It was also pointed out that overseas models reflected educational settings that are quite different from the Chinese scene, where English is learned as a foreign

language and English learning is traditionally examination-oriented and where large mixed-disciplines English classes are the norm (Huang & Xu, 2020; Ye, 2014).

In addition, benefits of such collaboration have been considered in the Chinese literature. Firstly, in the backdrop of the ongoing EGP-to-ESP/EAP paradigm shift at Chinese universities, it was suggested that language-content partnership can facilitate English teachers' EGP-to-ESP/EAP transition and their much-needed professional development (Huang & Xu, 2020; Wang, 2018). Secondly, with the rise of bilingual courses at Chinese universities from the early 2000s, it was suggested that such partnership can address the problem of staff shortage on these courses (i.e., shortage of content teachers who are able to teach in English) (Liu & Fan, 2015; Wang, 2018). Relatedly, it was pointed out that such collaboration, not invoking a big cost, can lead to the integration of resources (Liu & Fan, 2015; Xu et al., 2017). Indeed, it was even proposed that such collaboration should be broad-based and joint efforts can be made across universities in such initiatives as developing exemplary bilingual courses and course books (Xu et al., 2017). At the same time, challenges for such collaborative ventures to occur and last have also been discussed: content teachers' reluctance, workload concerns, the traditional silos separating disciplines, students' English ability, big mixed-disciplines classes, and the lack of institutional support (e.g., Han & Wang, 2010). These factors bear similarity to the kinds of challenges noted for other contexts in the world (see Li, 2020, 2021).

Within the scope of the present paper, moving beyond what has been proposed in the Chinese contexts (even though proposals are more common in the existing Chinese literature, as noted above), we aim to survey Chinese-medium academic literature to obtain an understanding of the kinds of language-content partnership that have actually taken place and been reported.

3. METHODS

The study reported in the present paper was guided by the following research question: How is the collaboration between English teachers and content teachers practiced at Chinese universities? A literature review approach was adopted to address the question. To identify relevant Chinese-medium literature for this study, searches were conducted in the "Academic Journals" section of the China National Knowledge Infrastructure (CNKI) (https://www.cnki.net), a mega-database of contemporary Chinese publications, in May and September 2023. Through systematic searching, we aimed to identify a rich number of case reports of actual practices of language-content partnership to be sufficiently illustrative of the Chinese scene, rather than aiming to get to every possible relevant mention. Our decisions made in the searching and selection process to be outlined below were in line with this stance.

Within CNKI we put search terms under "topic" in the search window, rather than under "keywords" (which would result in a narrower range of hits) or under "full-text" (which would result in an unmanageable number of hits in some cases). In the initial round, we searched (using Chinese characters) on 英語教師 (English teachers) AND 專業教師 (content teachers) OR 學科教師 (subject teachers) AND 合 作 (collaboration), which generated 328 hits. In a series of subsequent rounds of searching, we keyed in 合作教學 (collaborative teaching) OR 團隊教學 (teamteaching) OR 跨學科合作 (interdisciplinary collaboration), and combined the string with five sets of terms in turn: 1) 特殊用途英語 OR 專門用途英語 (English for Specific Purposes) OR ESP; 2) 學術英語 (English for Academic Purposes) OR EAP; 3) 雙語教學 (bilingual teaching); 4) 全英文課程 (English-medium instruction) OR EMI; and 5) 内容語言融合 (Content and Language Integrated Learning) OR CLIL. This series of rounds of searching resulted in 823 hits in total. We also separately searched on the term "Integrating Content and Language in Higher Education (ICLHE)" in view of its currency in European contexts (Moncada-Comas, 2022: 264). Yet this term did not generate any hit, suggesting that it is not yet in use in Chinese academic literature. The full texts of the 1,151 (328 + 823) hits were checked one by one, a process which eventually led to the identification of 36 papers which contain reports of language-content partnership with some details provided.

These 36 papers were published between 2009 and 2023 in a total of 30 different Chinese journals, with about half of the papers published from 2016 onwards, indicating that the topic is gaining prominence in the literature. Of all the papers, 35 were single- or first-authored by language teachers; only one was first-authored by a content teacher, with a language teacher as the co-author. A full list of the 36 papers is provided in the Appendix.

In looking for evidence of actual practices of language-content collaboration, we adopted an inclusive approach rather than focusing on certain types of journals or texts. Of the 30 journals, which broadly fall into two groups (on education and on foreign language education), less than one-fourth (7) were the so-called indexed journals, i.e., journals included in the "core" and/or "CSSCI (Chinese Social Sciences Citation Index)" databases for Chinese journals at the time of writing, indicating a relatively peripheral status for most of the papers in our collection. Between about 2 and 10 pages in length (in A4-size) or on average a little below 5 pages each, the papers vary widely in the level of detail provided and can be variously called project outline, course account, discussion with a course example, curriculum reform report, empirical study (a type very limited in number), or a combination of several text types. In terms of the course context, most of the papers concerned EAP courses, or specifically, English academic writing, English scientific paper writing, or academic English courses at the Master's level, with some at the doctoral or undergraduate level. A smaller number of papers were on ESP courses ("tourism English", "medical English") and another few were specifically on academic oral presentation in English. The target students were mostly in science, engineering, or medical

disciplines. The 36 reports came from a total of 33 tertiary institutions in 25 Chinese cities all over the country.

In reading the modest set of focal literature, we focused on identifying different forms of language-content partnership and examining content teachers' and language teachers' roles in the partnership; we were particularly interested in varied forms of team-teaching by language and content teachers. As part of the analysis, we also created a matrix to summarize all the case reports, recording for each, by columns, institutional context, course context, target students, key aspects of the collaboration, and the focal course concerned. Our overall strategy of analysis can thus be described as a combination of categorization and connecting strategies (Maxwell & Miller, 2008). The analytical process enabled us to present our findings as in the following section. The section will describe the collaboration between English teachers and content teachers practiced at Chinese universities by categories of forms, and will also aim to enrich the individual cases with some details, depending on what is available in the short reports. The section will only cite the reports in our focal literature and all 36 reports will be cited.

4. FINDINGS

4.1. Content teachers contributing to an ESP/EAP course taught by language teachers

At Yellow River Conservancy Technical Institute, the collaborative venture between language and subject teachers was "unilateral" before the year 2000, with ESP teachers approaching subject lecturers for information and advice or attending the latter's classes to inform ESP material design; it became "bilateral" from 2000 with subject lecturers starting to undertake the teaching of "subject English" courses and turning to ESP teachers for advice (Wang, 2009). "ESP teaching teams" for different disciplines were created in the waves of curriculum reforms, with language and subject lecturers engaging in "all-round collaborative teaching": "discussing students' target employment needs, collecting teaching materials and preparing lessons together, observing each other's classes, and sharing teaching ideas;" and importantly, co-compiling ESP textbooks (Wang, 2009: 107). Similarly, a "collaboration team" was also formed at Liaoning Finance Vocational College in the wake of a turn to develop a specialization in English for Business Communication, facilitating the co-compilation of a new textbook (Lu, 2015).

In an ESP course on tourism English at Weinan Normal University, a content teacher co-designed pre-session and in-session tasks with a language teacher, but it was the latter who did the class instruction (Zhang, 2012). A similar scenario was reported for an ESP course for undergraduate medical students at Ya'an Polytechnic College (Li et al., 2013). Specifically, it was reported: "Considering the subject

teachers' heavy teaching load, they did not participate in the ESP teaching but assisted the language teachers in deciding upon the teaching content, designing the teaching process, providing references, and occasionally giving seminars" (Li et al., 2013: 154). At Nanchang University, in language teachers' transition from EGP to ESP, three subject teachers in journalism provided material support and advised on the teaching content and syllabus of a new course on Journalism English, while the language teachers also audited content courses (Zou & Xu, 2014). In a Problem-Based Learning (PBL) academic writing course for medical doctoral students taught by language teachers at Fujian Medical University, content teachers were invited to contribute to the 'problem' design in the lesson preparation stage (Feng, 2014).

Chun et al. (2021) spoke of creating a "teaching community" at China University of Petroleum, with content teachers serving as course advisors by answering content-related questions, and advising on and serving as judges of students' mock international conference presentations, but without co-teaching with the language teachers. Content teachers joining hands with language teachers by assessing students' oral presentations at a mock international conference, which were usually scheduled as the culminating task of an academic communication course, was mentioned in another few papers as well (Chen et al., 2018; Pan & Duan, 2013; Zou & Jiang, 2019).

In an academic writing course based on genre pedagogy for Year 1 science and engineering graduate students at University of Shanghai for Science and Technology, the students should consult their supervisors in the first four weeks to identify high-quality journal articles in their disciplines for analysis in the course, and to select a research topic on which they would conduct research and submit a 5,000-word research paper at the end of the semester in Week 18 (Xiong, 2019). Another couple of papers also mentioned supervisors advising on students' topic selection for a short research paper which was a main final assessment task in a graduate-level EAP or academic writing course (Yan, 2022; Zeng et al., 2014). To illustrate, Yan (2022: 106) reported that in a genre pedagogy-based Academic English course for doctoral students at Beijing Institute of Technology, both formative and summative assessment were adopted. For the formative assessment (60%), the students analyzed the moves and lexico-grammatical features of the individual sections of disciplinary journal articles in the order of the instructional focus (introduction, methods, results, discussion, and conclusion), presented their analyses in groups, and did peer assessment; meanwhile, over the duration of the course they also put together a paper on a topic approved by their disciplinary supervisors, presented their writings in groups, and did peer assessment. For the summative assessment (40%), each student should submit their completed paper and conduct a PowerPoint presentation followed by a question-and-answer session.

4.2. Language teachers and content teachers engaging in teamteaching

The reports of "team-teaching" (tuandui jiaoxue) generally do not make it clear whether that involved language and content teachers' joint presence in course sessions. But that was clearly in the minority. Only three papers in our collection explicitly stated that the team-teaching reported involved co-presence of language and content teachers in the same class session. At Beijing University of Chinese Medicine, it was reported that in a "Reading Medical English Literature" course for Year 3 undergraduate students, "a language teacher and a subject teacher were both present in each session" (Li et al., 2014: 74). At Bengbu Medical College, various approaches to co-teaching by language and content teachers started to be implemented from 2015 in teaching "Medical English," a subject English course (Guo et al., 2019). At Kunming University of Science and Technology, for a blendedlearning graduate course "Academic English in Science and Engineering," an effort was made "for content knowledge to be merged into the course": team-teaching by a language teacher and a content teacher was arranged twice a semester; on the two occasions, with English journal articles from disciplines used as the teaching material, the content specialist first talked about reading skills from a disciplinary perspective, and then the language teacher conducted move analysis of the individual sections (Yang et al., 2022: 26).

In all other cases, it seems "team-teaching" meant language and subject lecturers co-teaching a course, but not necessarily by being co-present in a classroom. Three scenarios of such team-teaching can be distinguished, as to be elaborated below.

4.2.1. Language teachers and content teachers teaching different sessions of an ESP/EAP course or a bilingual content course

Long and Wu (2012) reported that at Guizhou Medical University, in a 54-hour English for Specific Academic Purposes (ESAP) course oriented to medical English reading and writing, an experiment class was jointly taught by a subject teacher and a language teacher: of the average six hours for each unit, the content teacher would teach the first two hours, explaining the key specialist knowledge in the unit, and the remaining four hours were taught by the language teacher, analyzing schematic structures and metadiscoursal features of medical texts. Notably, a senior medical student with strong specialist knowledge and English played the role of a content specialist sometimes. This was described as a "work-around" approach, for "content teachers all have their own teaching and research tasks and are unlikely to spare time to co-teach with us" (Long & Wu, 2012: 69-70). It can be said that such a case of a senior fellow student serving as a novice content specialist also exemplifies a form of language-content partnership; however, it was only occasionally reported (another case was noted in Chun et al., 2021).

Yang and Zhang (2012) is a rare report focusing on the professional development of a language teacher and a subject teacher in a month-long practice of incorporating the notion of genre in co-teaching a "Medical English" course to Year 1 students at Shantou University Medical College. Co-teaching was also mentioned for ESP courses at Lanzhou Petrochemical University of Vocational Technology (R. Zhang, 2010); for ESP courses in seven-year degree programs at Harbin Medical University (Qu et al., 2014); for an "English Academic Writing" course for graduate students in clinical medicine at Mudanjiang Medical College (Li, 2017); and for an "English Scientific Paper Writing" course targeting doctoral and Master students in agricultural irrigation engineering at Northwest Agriculture and Forestry University (Wang & He, 2021). Richly described was an eight-week 32-hour graduate course called "Understanding Publication and Presentation (UPP)" co-taught by language and content specialists at Zhejiang University (Liang et al., 2021). At the invitation of English teachers, seven senior content specialists (from agriculture, medicine, chemical engineering, life science, polymer science, materials science, and neuroscience) formed a "supervisor instructors' team," working with two language teachers. Each session of the first seven weeks consisted of two parts: the first part was taught by a content teacher addressing one of the three themes - research innovation, research publishing, and research sustainability; in the second part, a language teacher took over, focusing on academic writing (by analyzing articles from top journals) and practical skills of academic presentation (by analyzing examples of TED speeches and academic posters). In Week 8, at an "academic salon", both content and language teachers were present for assessment and feedback (similar to content specialists coming over to give feedback on students' mock international conference presentations, noted earlier). The course seemed highly successful. A student reflected: "Through this course, a fire was lit in my heart; ... I hope I can publish CNS [Cell, Nature, and Science] papers one day" (Liang et al., 2021: 40). Rare voices of content specialists were also reported: "The students' enthusiasm in raising questions made me feel surprised and excited and enjoy being a teacher"; "For the first time I realized that the students of Zhejiang University have such a strong desire for learning; UPP is the course where the students' desire for learning matched the best with the professors' passion in teaching" (Liang et al., 2021: 40). It is worth noting that Liang et al. (2021) is a paper co-authored by a language teacher and a group of content specialists in their "supervisor instructors' team."

Zheng and Liang's (2021) paper, likewise co-authored by an English teacher and a content teacher, reported on a 16-hour "English Scientific Paper Writing" course at Jilin University, for Year 3 and Year 4 undergraduate students in earth science. The topics covered included introduction to earth science research, academic norms in scientific paper writing, degree thesis writing and paper writing, research topic selection, procedure of scientific paper writing and publishing, and literature searching. The discipline specialist was responsible for the content concerning research in the discipline and the language teacher focused on

instruction on language and writing issues. The course content was informed by "research in second language writing in recent years," "with examples of phrases and sentence patterns in the different sections of scientific articles coming from authentic texts in earth science" (Zheng & Liang, 2021: 115). Another report, also from Jilin University, the most recently dated paper in our focal literature and authored by a group of English teachers, featured language teachers' collaboration with several content teachers and an editor in co-teaching a writing for international publication course to mostly Master's students in chemistry (Chen et al., 2023). The language teachers focused on the genre of research article and how to avoid plagiarism (8 sessions); the content teachers on research design, creating Tables and Figures, etc. (7 sessions); and the editor on submission and publishing (1 session).

In all the cases noted above, language-content partnership was centrally located in ESP courses. It is worth noting that at Dali University, language and subject teachers' collaboration in teaching a "Medical English Reading" course was reportedly to have increased subject teachers' confidence in teaching bilingual content courses, such as the courses on pharmacology, systematic anatomy, and medical microbiology (Yin, 2014: 87). Our focal literature also contains a single report of collaboration in the context of a bilingual content course, by Sun and Wang (2016). The paper is also the only text in our collection first-authored by a content teacher, with a language teacher as the co-author. It was on a 48-hour bilingual course called "Public Administration" offered to undergraduates majoring in public administration at Nanjing University of Science and Technology. In the spirit of a CLIL pedagogy, an English teacher (16 hours) focused on the Western history and cultural values behind the content which was then delivered by a content teacher (32 hours). Both teachers were keen in the collaboration, incentivized by the consensus that collaboration was for "achieving better exploitation and utilization of the human resources and complementation of expertise sets" (Sun & Wang, 2016: 223). No case of language-subject collaborative venture was identified for the EMI content course context.

4.2.2. Language teachers and content teachers teaching separate classes of an ESP/EAP course

Content teachers and language teachers could teach separate classes of the same course. At Guangzhou University of Chinese Medicine, in 2009, on an English paper writing course, a content teacher with overseas training and international publishing experience taught two classes and an English teacher who specialized in medical English taught the third class (Yang, 2012). It was reported that the students were keen to receive guidance on the discourse structure of research articles and on writing strategies, which was a weak point in the subject teacher's instruction but the English teacher was able to address the need of the students (Yang, 2012; see also Yang & Chen, 2011). At Beijing Forestry University, Year 1 Master's students

were divided into four classes based on a placement test in the first week, with Level A being the strongest and Level D the weakest; the performance objectives and the ratio between the numbers of content and language teachers varied for the four levels of classes (Wu, 2015). In addition, "an exchange platform" was established between the school of foreign studies and the other schools of the university, and English teachers became "buddies" with content teachers (e.g., an English teacher pairing up with one content teacher in agriculture, one in forestry, and another in engineering) for regular exchange, to provide "scaffolding" for students' English academic writing development over time (Wu, 2015: 44).

4.2.3. Expatriate content or language teachers co-teaching ESP/EAP with local language teachers

There were occasional reports of expatriate content or language teachers coteaching ESP/EAP with local language teachers. Zhou (2018) reported that in a "Professional Nursing Communication" class at Xinhua College of Sun Yat-sen University, an expatriate content teacher did content-based lecturing, while a local English teacher provided assistance, by "observing the class and explaining when appropriate any point that the students may find hard to understand" (Zhou, 2018: 140) (see also Zhou et al., 2020). The scenario was perhaps only a weak form of "team-teaching" in that the local teacher merely played the role of an assistant to the expatriate teacher. Chen et al.'s (2023) report from Jilin University, cited earlier, on a writing for international publication course for Master's students in chemistry, also mentioned that an expatriate teacher was among the content teachers teaching on the course.

Another scenario of local-expatriate collaboration in ESP/EAP teaching was when an expatriate teacher was hired as a language teacher (rather than a content teacher), but his/her training background in a content discipline (e.g., economics, arts, science) became an asset in the local institution. Yi (2018) reported that at Beijing Foreign Studies University, the ratio between expatriate English teachers and local English teachers was 1: 2.5. The expatriate teachers in service during 2011 – 2015 had a diverse range of training backgrounds: literature, linguistics and language teaching (23.5%), economics (41.2%), and other humanities, arts, and science disciplines (11.8% each on average). The qualifications of the foreign teachers and the benefit of collaboration between them and the local teachers were highlighted as follows:

The foreign teachers had all received TESOL accreditation and had over two years of English teaching experience. Moreover, 82.4% of them not only have language teaching experience, but also teaching or professional experience in other specialization areas. The collaboration between Chinese and foreign teachers in ESP can promote reciprocal learning and lead to a win-win situation. (Yi, 2018: 68)



In this case, expatriate language teachers' training background in varied disciplinary areas meant that they were considered well-positioned to teach ESP to students in disciplines proximate to their own training background.

4.3. Language teachers contributing to the international publication in disciplines

This seemed a quite natural development at Chinese universities, given the international publication pressure that graduate students and their supervisors have been under.

4.3.1. Language teachers critiquing novice manuscripts with content teachers

Z. Zhang (2010) provided a relatively early example of language teachers and content teachers joining efforts to promote students' successful publication at Chongqing Jiaotong University: a discipline specialist and an English teacher would comment from research and language perspectives respectively on students' consecutive drafts of manuscripts targeted for publication. An "Academic English Paper Writing and Publishing Workshop" at Beijing University of Technology similarly operated on a collaborative model: it "provides non-English major graduate students with support from paper writing, revising, and polishing all the way to publishing, based on the collaboration between Chinese and foreign teachers, and between language teachers and specialist supervisors" (Shao, 2015: 103).

Zou and Jiang (2019) reported a "cross-disciplinary teaching team" consisting of English teachers and disciplinary supervisors, established at Chongqing University in 2012, when the graduate curriculum was re-oriented to cultivating students' ability in international academic communication. There was no mention of classroom team-teaching, but it can be seen that with doctoral students, the emphasis of the "project-driven" (the students working on their research projects in disciplines), "cross-disciplinary" collaboration was on promoting successful international publication and oral presentation for international conferences. Supervisors guided on the "innovation and scientific logic" of the students' papers, while English teachers aimed to ensure the language expression was "standard, accurate, logical, complete and concise" (Zou & Jiang, 2019: 83), apparently including through polishing the students' manuscripts (Zou & Jiang, 2019: 84).

4.3.2. Language teachers polishing manuscripts for research groups in disciplines

Zou and Jiang (2019) observed that their teaching team of language and content teachers was relatively informal and largely based on the teachers' voluntary work. Nevertheless, "the lack of institutionalized management and mechanisms of

incentivization has reduced the motivation and work efficiency of the teaching team in academic innovation," as was reported (Zou & Jiang, 2019: 84). One tricky line of voluntary work by language teachers is to polish manuscripts for students and content specialists.

While at Z. Zhang's (2010) and Zou and Jiang's (2019) universities, English teachers' language polishing of manuscripts seemed to be conducted in a collaborative context with content teachers, as described above, such work by language teachers could seem to lower their institutional status, in our view. At Shenyang Agricultural University, English teachers were encouraged to "integrate" themselves into a specialist research group to provide English writing and editing support (Li & Liu, 2021). There was evidence that such integration boosted the publication success of the research groups concerned (Li & Liu, 2021: 105). Although this mode of collaboration was promoted in the local setting as a crucial means for English teachers to achieve "specialization," it was nevertheless pointed out that "there is as yet no clear regulation for how the English teachers' hard work for the specialist research groups can be reflected in their assessment" (Li & Liu, 2021: 106). Yang et al. (2022) also reported that at Kunming University of Science and Technology, "a Writing Centre was set up (by English teachers), polishing and revising English papers for free for the staff and students; the students responded well and reported it was very helpful" (Yang et al., 2022: 26). It is unclear to us how sustainable such arrangements would be, which were apparently based on a service model of language teachers' roles.

5. DISCUSSION

In this study that surveyed a modest collection of Chinese academic literature, we aimed to answer the question "How is the collaboration between English teachers and content teachers practiced at Chinese universities?" Our findings, based on an analysis of 36 relatively short Chinese-medium reports, showed that overall, the Chinese scene displays a continuum of language-content partnership, ranging from lower-level to higher-level interaction between English and subject teachers (e.g., Barron, 1992; Dudley-Evans, 1998, 2001; Hyland, 2022).

Our findings first revealed that at Chinese tertiary-level institutions, content or subject lecturers may contribute to an ESP/EAP course taught by language teachers, by serving as an informant or a consultant, advising on the teaching content, providing references, co-designing tasks or "problems" with language teachers, or serving as judges of students' mock international conference presentations scheduled in the ending part of an academic communication course. At Chinese universities, mock international conference presentation constituted a relatively early component of "academic communication" courses which arose with the introduction of EAP into China in the early 2000s and with the publication of influential textbooks on international conference presentation (e.g., Hu et al., 2000).

Academic conference presentation has remained a part of "academic communication" courses for graduate students at many universities to this day. In recent years, academic writing courses for students across disciplines have developed slowly, with English for Research Publication Purposes (ERPP)-oriented courses set up at some universities (see Li & Ma, 2018 for a review). For this reason, in an academic writing course taught by a language teacher, inviting subject teachers to advise students on high-quality journal articles for study or on topic selection for a short research paper which would be in the final assessment was a more recent development.

Our study also revealed a wide range of scenarios of language teachers and content teachers engaging in "team-teaching," with "team-teaching" defined broadly, not necessarily involving language and content teachers' co-presence in the same class session. In fact, only a small number of papers in our focal collection explicitly mentioned such co-presence. This finding echoes Dudley-Evans's (2001) observation when referring to the pioneering collaborative model at the University of Birmingham (Johns & Dudley-Evans, 1980), that lower-level interactions may be more common, while team-teaching in the narrower sense of language and subject lecturers co-teaching in the same class session "only occurs on an occasional basis" (Dudley-Evans, 2001: 237). Excluding the co-presence cases, we identified three scenarios of team-teaching: language and content teachers teaching different sessions of an ESP/EAP course or a bilingual content course; teaching separate classes of an ESP/EAP course; and expatriate content or language teachers co-teaching ESP/EAP with local language teachers. Several points about the reports of the scenarios can be made.

Firstly, although several papers reporting on ESP/EAP courses indicated that language teachers employed genre analysis when using texts from disciplines as teaching materials (Chen et al., 2023; Long & Wu, 2012; Yang et al., 2022; Zheng & Liang, 2021), only one paper reported that the notion of genre was the conceptual and pedagogical tool drawn upon by both language and content teachers in their collaborative venture, with the tool promoting both parties' professional development (Yang & Zhang, 2012). A strong case made for the centrality of genre in the collaboration between ESP specialists and EMI instructors in European contexts (Breeze & Sancho Guinda, 2017; Mancho-Barés & Arnó-Macià, 2017) would provide a valuable reference for Chinese practitioners.

The second point worth noting is the fruitful involvement of content specialists in teaching graduate courses with an ERPP orientation (which may bear a course title like "English Scientific Paper Writing"), with language and discipline lecturers often being responsible for teaching separate sessions. This contrasted with the case described by Li et al. (2019) of an ERPP course at a Chinese university which was team-taught by an invited duo: an Australian language professional and her Australian scientist collaborator, who were both present in the classroom (and were among the co-authors of the paper). Nevertheless, it has been shown that language and subject specialists' co-presence in an ERPP classroom may not be fruitful (Cargill et al., 2018; Huang, 2017). If their teaching of separate sessions focusing on language and content issues respectively can be highly rewarding for both the teachers and the students, as reported in particular by Liang et al. (2021) from Zhejiang University where a "supervisor instructors' team" pitched in to contribute to a course on international publication and presentation, it suggests that this form of team-teaching can be sustainable and is worth promoting.

Thirdly, we were only able to identify one report of language-content partnership in the context of a bilingual content course, and surprisingly, not a single report of such collaboration in the context of an EMI content course, despite calls both in the wider Chinese literature, by language teachers (e.g., Liu & Fan, 2015; Lu, 2014), and in the English-medium literature, by external researchers (e.g., Galloway & Ruegg, 2022; Tong et al., 2020), for such collaboration to happen for bilingual teaching and EMI in China. Notably, in the wider Chinese literature, accounts of EMI courses are almost always authored by content teachers who are the course teachers themselves. In those accounts, English teachers or the English courses taught by them are rarely mentioned. The following extract shows an exception. In this quote, which is from a content teacher's account of an EMI course for economics and management, separation between English courses and EMI courses are highlighted, with the latter apparently privileged over the former in terms of the value for students:

Although there have always been college English courses, several English lessons a week cannot effectively raise non-English majors' English ability. In addition, there is a lack of training on subject English in the college English instruction. Thus, offering EMI subject courses would be significant for students majoring in economics and management, by strengthening their subject English ability as well as their competitiveness in the job market. (Gao, 2016: 91)

This sentiment on the part of subject teachers—that they are better qualified than language teachers to meet the students' needs for using English in a target academic or professional community—seems to have become wide-spread in Asian contexts in recent years (Cheng & Anthony, 2014). Additionally, the Chinese scene of leaving the implementation of EMI in the hands of content teachers, with little policy-level initiative to involve English teachers, bears some similarity to a report of challenges from Spain (Arnó-Macià & Mancho-Barés, 2015). The current general lack of language-content partnership in bilingual and EMI content courses in Chinese universities has been described as a "lost opportunity" (Margaret Cargill, personal communication). In these course contexts, instead of exploring language-content partnership, the existing Chinese literature on EMI reveals an emphasis upon capitalizing on the potential contribution of expatriate content specialists. It was proposed that expatriate subject specialists co-teach EMI courses with local subject lecturers, as a form of training local EMI teachers (Guo & Hou, 2019; Kang et al., 2018). It was further suggested that expatriate content specialists be enlisted to address doctoral students' problems in English writing and help raise their

international publishing capacity (Xu & Wang, 2018). Some universities also sent their would-be EMI instructors to English-speaking countries to receive training (Cheng, 2017). Nevertheless, the proposals and practices of exploiting external resources would only be feasible when sufficient resources for hiring expatriates or sending EMI instructors overseas for training are available. For both affordability and sustainability, it can be argued that it is the English teachers of their own institutions that content teachers should turn to above all for training opportunities and developing collaborative ventures. European ESP scholars' argument for partnership between ESP specialists and EMI instructors in the training initiatives for the latter (e.g., Mancho-Barés & Arnó-Macià, 2017) again provides a valuable reference for the Chinese scene.

Beyond various forms of team-teaching mostly occurring in ESP/EAP courses, with a "lost opportunity" for collaboration in bilingual and EMI content course contexts, our study revealed another form of language-content partnership at Chinese universities: English language teachers contributing to the international publication in disciplines by critiquing novice manuscripts with content teachers and by polishing manuscripts for research groups in disciplines. Apart from the significant contribution from formal editing services accessible to Chinese authors, English teachers at Chinese universities have potentially played an important role in editing English manuscripts for content specialists and students, thus contributing to the international publication success of Chinese authors (Luo & Hyland, 2017). A group of English teachers at Beihang University have even put together a book of teaching materials based on their experience of revising manuscripts for students across disciplines (Xia et al., 2020). However, our findings revealed that there is a risk of language teachers being exploited for the purpose in a service model (Harper & Vered, 2016), with their hard work unacknowledged or under-valued at the institutional level. As we have pointed out elsewhere, we believe "[i]nstitutions should make use of such existing informal connections between language and content teachers and create policies that foster more formal, curriculum-based partnerships" (Li, 2021: 49).

6. CONCLUSION

Our study has illustrated in concrete ways a range of language-content partnership in a variety of local contexts at Chinese universities. As pointed out in the methods section earlier, this body of Chinese literature mostly featured short pedagogical reports and less than one-fourth of the journals in which they were published were indexed journals. Despite their overall modesty, the occluded Chinese-medium reports demonstrated that such partnership does exist at a broad range of Chinese tertiary institutions that spread across the country.

In our survey, we also noticed a couple of gaps in the Chinese literature. The first gap is that very little information seems available on what has been done at the

institutional level to promote language-content partnership. Proposals for what can be done at the management level have been made over time in the Chinese literature: to create a collaboration-friendly environment, to lay down favorable policies, and to even share resources across institutions (e.g., Li, 2001; Liu & Fan, 2015). However, overall, evidence for the stance of the university management on the issue of such interdisciplinary collaboration seems largely missing. Secondly, limited evidence of language-content partnership has been identified in the area of textbook compilation. It has been proposed in the Chinese literature that language and subject specialists collaborate in compiling ESP/EAP textbooks and textbooks for bilingual courses (e.g., Huang & Xu, 2020; Liu & Fan, 2015). In view of the many kinds of ESP, EAP, and English academic writing textbooks that have been coming out in large numbers in China in recent years, there might be a lot of language-content partnership going on in the arena of textbook compilation; the implications of this for the practitioners' professional development will need to be researched.

Within the space of this paper, although we aimed to be systematic in our review, we cannot claim that we have presented a complete picture of the subject matter under examination. Nevertheless, as we noted earlier in this paper, there have been more proposals of language-content partnership than actual reports of such collaboration in the Chinese literature. Our effort to put together and examine a collection of Chinese publications which would have been otherwise occluded to the outside world, to illuminate the actual practices of the interdisciplinary collaboration makes a valuable contribution to the discussion of various issues highly pertinent in many higher/language education contexts. These issues could include the position of ESP/EAP in relation to EMI, pedagogical approaches to disciplinary literacies, and the educational and professional development needs of ESP/EAP teachers and EMI instructors (e.g., Bocanegra-Valle & Basturkmen, 2019; Dafouz Milne, 2021; Hyland, 2022; Mancho-Barés & Arnó-Macià, 2017; Wingate, 2022; Zhang & Chan, 2017). The picture portrayed in the present paper of the Chinese scene, with all the possibilities and potential challenges exposed, will be enlightening for practitioners, researchers, and policy makers in other contexts who are interested in exploring the educational value of language-content partnership.

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Appendix

A full list of the 36 Chinese papers containing reports of practices of language-content partnership

- Chen, X., Du, Z., & Chu, T. (2023). Yingyu keyan lunwen xiezuo de kuaxueke hezuo jiaoxue ji youxiao xing yanjiu [English research writing: Cross-disciplinary team-teaching and its effectiveness]. *Huaxue Jiaoyu* [Chinese Journal of Chemical Education], 44(12), 93–99.
- Chen, Z., Lin, Y., & Han, D. (2018). Tuandui jiaoxue zai yanjiusheng xueshu yingyu nengli peiyang zhong de kexing xing he youxiao xing yanjiu—yi yanjiusheng yingwen lunwen koutou huibao kecheng wei li [Feasibility and effectiveness of team-teaching in cultivating graduate students' academic English ability: A case study of an academic presentation course for graduate students]. *Zhongguo ESP Yanjiu* [*Chinese Journal of ESP*], 9(1), 54–64.
- Chun, L., Guo, Y., & Wang, Y. (2021). "Shuang yiliu" beijing xia jiyu OBE de yanjiusheng xueshu yingyu jiaoxue moshi gaige yu shijian—yi Zhongguo Shiyou Daxue (Huadong) wei li [OBE-based academic English teaching for graduate students in the context of "Double first-class": A case study at China University of Petroleum (East China)]. Xuewei Yu Yanjiusheng Jiaoyu [Academic Degrees & Graduate Education], (5), 42–47. https://doi.org/10.16750/j.adge.2021.05.008





- Feng, X. (2014). PBL zai fei yingyu zhuanye boshi sheng xueshu yingyu xiezuo nengli fazhan zhong de xiaoyong [The application of PBL for developing non-English major doctoral students' English academic writing performance]. Kaifeng Jiaoyu Xueyuan Xuebao [Journal of Kaifeng Institute of Education], 34(6), 136–138.
- Guo, S., Liu, J., Wang, T., Ma, X., Chen, X., & Chen, D. (2019). Gaodeng yixue yuanxiao yixue "zhuanye yingyu" hezuo jiaoxue moshi yanjiu [Co-teaching models for "Medical English" in medical colleges and universities]. Chengdu Zhongyiyao Daxue Xuebao (Jiaoyu Kexue Ban) [Journal of Chengdu University of Traditional Chinese Medicine (Educational Science Edition)], 21(02), 54–57.
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- Li, S., Tian, Y., Yang, M., Li, Y., & Tian, C. (2013). Gaozhi ESP kuaxueke hezuo jiaoxue shizheng yanjiu—yi Ya'an Zhiye Jishu Xueyuan yixue yingyu jiaoxue gaige wei li [An empirical study on interdisciplinary collaborative teaching of ESP at polytechnic colleges: The case of a teaching reform on medical English at Ya'an Polytechnic College]. *Zhiye Jiaoyu Yanjiu [Vocational Education Research]*, (6), 154–155.
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