Investigating the teacher education needs of experienced ESP teachers in Spanish universities

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Abstract

This paper presents findings from a study exploring the teacher education needs of experienced English for Specific Purposes (ESP) instructors. It discusses data from interviews with 19 experienced in-service teachers of ESP in two Spanish universities. The interviews aimed to develop an understanding of the teachers' views of ESP teaching, the kinds of knowledge and skills they required and the forms of support that could be of benefit to them. Results suggested that the teachers perceived needs in five areas: course development, knowledge of the target discipline, knowledge of language use in the target discipline, peer collaboration, and professional development opportunities. It is hoped that findings from the present study are illuminating for the ESP teaching profession and drawn on in future teacher development initiatives in the local context.

Keywords: needs analysis, ESP teachers, teacher needs, teacher education and development, experienced teachers.

Resumen

Estudio de las necesidades de formación del profesorado experimentado de IFE en la universidad española

En este trabajo se investigan las necesidades del profesorado de Inglés para Fines Específicos (IFE) en el caso concreto de profesores experimentados. Se presentan y estudian los hallazgos obtenidos a partir de las entrevistas realizadas a 19 profesores experimentados de IFE y actualmente en activo en dos universidades españolas. Las entrevistas tenían por objeto comprender la visión que tienen estos profesores sobre la enseñanza de IFE, ahondar en los conocimientos y las destrezas que asumen como necesarios en su quehacer docente, así como identificar el tipo de apoyo que podría resultarles beneficioso en el ejercicio de

su profesión. Los resultados indican que los profesores experimentados de IFE perciben la existencia de necesidades en cinco ámbitos concretos: desarrollo curricular, conocimiento de la disciplina meta, conocimiento del lenguaje especializado propio de la disciplina meta, colaboración entre iguales y oportunidades para el desarrollo profesional. Es de esperar que la metodología seguida y los resultados obtenidos en este estudio sirvan de guía para el ejercicio de la profesión docente en el área y para el desarrollo de iniciativas de formación del profesorado a nivel local.

Palabras clave: análisis de necesidades, profesores de IFE, necesidades del profesorado, formación y desarrollo del profesorado, profesores experimentados.

Introduction

Needs analysis (or needs assessment) is a prolific area of research in the field of English for Specific Purposes (ESP) but the construct of "needs" has always been approached from and for the learner, and with a view to improving curriculum design and materials development (Flowerdew, 2013; Bocanegra-Valle, 2016). Teacher needs are invariably overlooked in the discussions regarding needs assessment, and this may explain the paucity of research on this matter. This paper explores experienced in-service ESP teachers in two Spanish universities with the aim of identifying their needs as teaching professionals and gaining a better understanding of the forms and features of ESP teacher expertise. "Experienced teachers" refer here to teachers who have had several years of teaching experience, as opposed to "inexperienced" or "novice teachers", who are starting in the teaching profession or have poor teaching experience.

Esp teaching in Spain has expanded over the past twenty-five years and engages teachers in most university English departments (Aguado de Cea & Curado Fuentes, 2012); however, very little is known about what kinds of knowledge, skills and abilities these ESP teachers need and how they are acquired and developed. Current literature has served to raise awareness and provide some generalised views (mainly from Anglophone contexts) but empirical research is still very limited and notably absent from needs analysis studies. Moreover, TESOL courses across the world are increasingly offering modules on ESP but they are not necessarily well informed by what teachers need in this area. To the best of our knowledge, research into ESP teacher needs in the Spanish context is inexistent and, therefore, this exploratory study aims to advance this issue and partly fill this gap.

Brief review of the literature on esp teacher education and teacher needs

Even though ESP rose as a field of Applied Linguistics more than five decades ago (Upton, 2012), ESP teacher education and development¹ is a rather under-explored area - two notable exceptions are McDonough and French (1981), and Howard and Brown (1997). Literature is certainly scarce in this field, which is surprising given the demanding nature of this kind of teaching (Basturkmen, 2014) and the increasing demand for ESP teachers world-wide (Ding & Campion, 2016). Hall (2013) suggested that the limited interest in the topic might relate to this field connection with the communicative language teaching approach which privileged learners' purposes and placed the focus on the learners – therefore, pushing teachers to the background and undermining any research interest on their education and development. Whereas there is a substantial body of research in relation to teacher education in general, and to foreign language teacher education and development in particular, research into ESP teacher education shows a clearly different picture.2 Investigations like Hüttner, Smit and Mehlmauer-Larcher (2009), Alexander (2012), Campion (2016), Tao and Gao (2018) or Basturkmen (2019) attest, however, that there is some emerging interest in this topic. These and other related works are outlined below.

Teacher education programmes

Teacher needs and how these can help to provide a basis for the design, implementation and evaluation of ESP teacher education programmes were studied by Master (1997) and Richards (1997). Peter Master investigated the abilities and experience needed by ESP teachers in the United States in order to teach academic, professional, vocational or sociocultural ESP. Before that, Keith Richards had explored the interests and concerns of ESP teachers in a small language school by collecting data as a participant observer over fifty days and arrived at the conclusion that the professional lives and beliefs of ESP teachers around the world needed in-depth exploration.

Professional qualifications

The need for professional qualifications based on the earlier provision of suitable courses was identified by Jordan (2000) as a part of a larger investigation on teacher needs. More recently, Campion's (2016) findings

revealed that specific qualifications for the teaching of academic English appear useful but only if combined with previous teaching experience and a range of informal development activities. Tao and Gao (2018: 11) have taken a step further by stressing "the need for increased professional development opportunities" in the case of those language teachers who need to transform their careers to become ESP teachers in rather different parts of the world (like Asia, American universities or the European Higher Education Area).

Hall (2013) suggested that a three-module teacher training course focused on pedagogy, context-embedded language and discourse analysis, and management would provide ESP teachers with a set of essential knowledge and abilities. It is precisely with this similar aim of providing guidance for teachers (particularly less experienced) and equipping them with the technical skills and professional capabilities that teachers need, that the association BALEAP developed the Competency Framework for Teachers of English for Academic Purposes (EAP). The Framework sets out goals for teacher learning and professional competencies, and has informed some existing literature (e.g. Alexander, 2012); however, what remains unexplored is how ESP teachers do or can come to acquire and develop these skills and capabilities.

Disciplinary knowledge

The knowledge of the subject-matter of a discipline is an issue which has long been present in most debates around ESP teaching. Ferguson (1997) was concerned with how much subject-matter knowledge a well-qualified ESP teacher should possess. He argued that it was not possible to establish "a quantity" and after analysing a number of theoretical arguments, empirical studies and practical accounts based on classroom experience, he claimed that teachers should possess "specialised knowledge", which involved the needs for knowledge of disciplinary culture, knowledge of the epistemological basis of different disciplines, and knowledge of genre and discourse analytic skills. In the same vein, Master (2005) observed that it is not easy to find an answer to how much specialist knowledge successful ESP teachers need mainly because of the variation of ESP teaching (in terms of learners, goals, settings or materials) and because each ESP field requires a different degree of expertise.

Pedagogical knowledge

The broader issue of what specific knowledge is required by ESP teachers has probably attracted the widest interest and the existing empirical work. In 2000, Jordan conducted a survey among 73 teachers from 32 British universities/colleges and explored the changes, difficulties and needs that affected teachers and their work. Respondents noted four main groups of needs, two of which referred to more enhanced pedagogical knowledge (development of materials adapted to the real needs of students, and improved teaching of key vocabulary). Likewise, from a survey conducted among a group of teachers that had attended an EAP teacher development course Alexander (2007) found that participants expressed their needs as general and specific, and that specific needs focused on the development of pedagogical knowledge - like the need to understand the conventions and expectations of the academic context or to develop students' critical and analytical skills. More recently, Huang (2018) focused on the assessment literacy of 35 EAP Canadian instructors and explored their perceptions about testing and assessment together with their related professional development needs.

When transitioning from teaching general to academic English the development of the specialised knowledge of academic conventions appears to be the greatest challenge. This was found by Campion (2016) who looked into the teaching experiences of six British teachers and explored the potential value of specialist teacher education programmes in addressing teacher needs in such transition.

Internationalisation of higher education institutions

One of the key strategies within the European Higher Education Area (EHEA) and some other parts of the world is the internationalisation of programmes and degrees. Following this trend, content and language integrated learning (CLIL) or English as a Medium of Instruction (EMI) have emerged in higher education as approaches which might compete with ESP courses and challenge the status quo of ESP teachers. More particularly, the roles of English in higher education have changed from "subject" in ESP courses to "tool" in EMI settings, and "subject, tool and mediator" in CLIL programmes (Dafouz & Smit, 2017: 297). Even though ESP teacher needs in CLIL or EMI education contexts is at present an issue in need of empirical research and further investigation, some literature suggests that the arising

situation has an impact on the current roles and the professional development of ESP teachers, and therefore opens up new challenges and needs in the profession: ESP teachers as need analysts for CLIL courses (Ruiz-Garrido & Fortanet-Gómez, 2009), ESP teachers supporting content lecturers as CLIL tutors (Woźniak, 2017), ESP teachers in need of more CLIL methodology training (Yang, 2016) and more disciplinary-centred ESP education programmes (Banegas, 2018), ESP teachers as discipline-adapted course designers (Arnó-Macià & Mancho-Barés, 2015) or opportunities for closer collaboration between content and ESP teachers in a so-called "adjunct model" (Arnó-Macià & Mancho-Barés, 2015).

The study

Context and participants

We interviewed 19 ESP teachers (5 male and 14 female) from two Spanish universities with an average ESP teaching experience of 21 years (see Appendix A). Both universities place more focus on ESP (rather than EAP) because courses are mainly developed with a view to preparing students for their target professional needs. All teachers had a B.A., thirteen a Ph.D. in English Philology, and had completed a general methodological course (which is compulsory in Spain to get into secondary education teaching). No teacher in this study possessed a specific TESOL-related qualification or had received any formal training in ESP (two participants had attended occasional workshops on ESP teaching). Nearly all (n=17) started teaching ESP "by chance". They have been involved in teaching ESP for over thirty different target disciplines/professions, to undergraduates in all cases, and some at master's level and to in-service professionals.

Data collection and analysis

The data in this study were drawn from the replies to parts of a semistructured interview that not only focused on ESP teacher needs but also investigated teachers in developing materials and their principles and practices in this field (see Basturkmen & Bocanegra-Valle, 2018). Participants had prior access to the interview protocol so that they could reflect on their replies and bring evidence to support their comments. Interviews lasted around 45 minutes each, they were digitally recorded and the recordings were transcribed.

For the analysis of the data we used a mixed methods approach in which participants' replies to the interview questions were identified and counted, but examined qualitatively.3 The data were analysed in five stages. First, we went through the transcripts to get a general idea of each participant and how the whole interview had developed. It is here that the parts of the interview under study (background questions and part two) were identified and delimited (see Appendix B). Then, we focused on the background questions to get an individual profile of each participant and a general profile of the whole group. After this, we closely examined each interview transcript and listed and tallied the replies to each question against the names of the participants who had responded in a similar way or with a similar idea in mind. This provided us with a list of statements per question and participant together with its corresponding counts. Next, we closely examined this list and coded the statements in two stages as suggested in qualitative-research literature (e.g. Saldaña, 2009; Silverman, 2005; Dörnyei, 2016): first we annotated the texts with keywords and expressed them in the form of categories or codes (open coding); then we refined the categories and grouped the codes into a dozen themes (axial coding). Last, we collated our findings with the existing literature through a process of inductive coding, and reformulated the initial codebook into five themes and fifteen subthemes as shown in Table 1.

Themes and sub-themes			Participants (n=19)	
Course development needs		16		
a.	Needs assessment		9	
b.	Teaching skills		12	
C.	Autonomy		9	
d.	Materials use and development		15	
e.	Motivation		13	
Knowledge of the target discipline/profession/industry		16		
a.	Engagement in disciplinary community		10	
3. Knowledge of language use in the target discipline/profession/industry		15		
a.	Situational language		7	
b.	Situational vocabulary		6	
C.	Genres and text types		6	
d.	Disciplinary culture awareness		10	
4. Peer collaboration		15		
a.	Collaboration with peers		15	
b.	Collaboration with content teachers		10	
Professional development opportunities		19		
a.	Support for novice teachers		19	
b.	Support for experienced teachers		19	
C.	Ongoing professional development		17	

Table 1: ESP teacher needs: Themes and sub-themes.

Findings and discussion

Esp teacher needs were identified with regard to the participants' replies to part 2 of the interview (see Appendix B) and following the iterative analysis process noted above. Needs are presented as the main themes have emerged along the interviews, and discussed in turn.

Course development needs

Nearly all the teachers (n=16) highlighted the central role they accorded to learners' needs in their courses. They saw needs-based instruction as the core of ESP teaching. They stressed the importance of selecting the right topics and language (discipline/profession relevant) for the syllabus and emphasized the importance of analysing target situations to know what was required. As one participant said, "you have to research the language and the needs before teaching the course" (Eva). Teachers talked about the specific skill set of ESP teaching as one that included designing activities and tasks that resemble real life (in the target discipline/profession). They felt that they needed good skills in promoting class interaction and engaging students in conversations but that they also needed to be willing to accept learners' suggestions (the idea of shared expertise) and be ready to move from one target discipline to another. Around half felt they needed to be able to encourage autonomous learning (as their learners would have to continue learning English for their discipline/profession beyond ESP instruction) and talked about the importance of promoting self-direction and independent learning.

Almost all the teachers referred to the need to be able to develop materials that met target needs. For most this involved selecting from and adapting already existing (sometimes published) ESP materials (like textbooks) and for others it involved adapting authentic materials and devising new materials. They all felt a necessity to develop, select or adapt materials which demonstrate language use in the discipline/profession. It was important for around two thirds of the teachers to be skillful in increasing motivation because some students appeared unmotivated, particularly when the discipline was not the preferred degree choice of the students.

It has become clear from the data that teachers need pedagogical knowledge and teaching skills. This refers not only to the knowledge of basic teaching principles but also to the teacher ability to make the language of a target discipline teachable – that is, the need "to be effective teachers" (Hall, 2013: 5540). It also involves an awareness of those pedagogical issues that are most appropriate for the teaching context (how to promote a particular skill, how to encourage active participation, how to manage the group and how to assess language development) so that teachers are good users of the target language and understand how the target language works (Jourdenais, 2009). Such level of awareness leads many participants to see themselves as involved in too many tasks (the Jack-of-all-trades teacher depicted by Hyland, 2012) because not only do they have to study and learn about the teaching context but also investigate it in view of successful teaching performance (Belcher, 2006; Hall, 2013). Lack of training in pedagogical practices, such as testing and assessment (Huang, 2018) or materials development (Basturkmen & Bocanegra-Valle, 2018), makes, in these participants' view, a significant difference with general English language teaching (ELT).

The need for a variety of materials already expressed in Jordan (2000) has also been highlighted by these teachers together with the need for assessing, selecting, adapting, creating and developing new materials that, firstly, meet the needs of the learners and the target discipline/profession and, secondly, address students' levels and the size of learner groups. Accepting that materials development has been a major activity since the beginning of ESP courses (Belcher, 2006), we have observed that (i) the original goal of providing learners with useful materials adapted to their target needs has evolved and expanded; and (ii) there is also a need for providing materials which prioritize motivation and self-direction.

Last, the introduction of independent learner strategies in ESP courses for self-direction and learner autonomy is an issue which has gathered little interest in the literature (e.g. Mozzon-McPherson, 1997) but has been identified elsewhere as a relevant teacher need (Alexander, 2007; Upton, 2012). The promotion of self-direction and autonomy in view of lifelong learning is one of the main tenets of the EHEA, to which the Spanish university (like other EU universities) must adhere.

Knowledge of the target discipline/profession/industry

Most participants (n=16) stated that knowledge of the target discipline is "absolutely necessary" or "very desirable" for successful ESP teaching. The reason underlying such need is, as one participant put it, because "the more you know, the best you are going to give in this tuition" (Blanca). Comments also revealed that a lack of disciplinary knowledge reflected poorly on teachers: "I don't feel confident when they [learners] talk about all those things [...]. I am not going to teach them how it works but, once they know how it works, I should know because they ask me in their conversations" (Ines). Most of the teachers felt an acute need for engagement or full integration in the disciplinary community so as to feel "respected", "valued" and "credible". As one participant (Victoria) noted, if the ESP teacher is not integrated, s/he will feel "an outsider", "an alien", and will not be respected or valued. These issues of "respect" and "value" were explicitly pointed out by almost a third of the whole group. One participant (Claudia) remarked on the importance to appear "credible" before content colleagues and to achieve this she worked in a research group of the discipline so as to know "what is accepted and what is not in the area".

Disciplinary knowledge has been studied in the ESP literature as content knowledge, subject-matter knowledge or specialist knowledge. Participants in this study believed that the amount and depth of disciplinary knowledge required are difficult to quantify and vary along with teaching experience and the students' levels. These findings concur with earlier works discussed in the literature review (i.e. Ferguson, 1997; Master, 2005). For these teachers general knowledge about the discipline is necessary in early teaching stages (students are apprentice in the discipline), but the more expert the learners, the more information about the content area an ESP teacher needs (even up to a level of "immersion", as one participant pointed out). Also, as another participant explained, students in higher levels (that is, master's degrees or close to graduation) will demand more content depth in texts and activities if compared with students in lower courses (freshmen).

The demanding nature of the teaching context in terms of disciplinary knowledge needs is a major concern. ESP teachers, usually with a humanitiesbiased education as it is the case here, should not be expected to master the substantive content of the learners' discipline (Ferguson, 1997). This group of ESP teachers shares this view; however, they feel indirectly forced to acquire and develop disciplinary knowledge for successful teaching and if they do not wish to feel uncomfortable. It stands out that many teachers may find the specialist content areas of their ESP learners "unfamiliar, uninteresting, and even intimidating" (Belcher, 2006: 139), some others, may just not feel at ease or comfortable.

Esp settings host a very special teacher-student relationship and entail the concept of "shared expertise", that is, "the learners are likely to have more experience and knowledge than the teacher in the specific area being targeted" (Hall, 2013: 5537). Such special relationship and the concept of "shared expertise" have been observed by these study participants and different actions on the ESP teacher's part to overcome any possible obstacles have been suggested.

The interviews revealed that the ways these teachers developed disciplinary knowledge were varied and largely self-initiated. In the absence of specific support, teachers have employed different strategies to meet their content knowledge needs, and choices depend on the disciplinary knowledge level to be attained and the purposes pursued: reading popular science and exploring ESP textbooks to get a general idea of the discipline; reading relevant books and journal articles is recommended once basic disciplinary knowledge has been acquired; attending disciplinary lectures and invited talks delivered at the institution; holding conversations with content teachers about the discipline and the profession; helping content colleagues to improve their English and chatting over relevant topics in the discipline in English; or getting involved in an inter-disciplinary research group.

The need for respect and full integration in the disciplinary community noted by our participants may be interpreted as a consequence of "teachers' attempts to overcome their 'outsider' status" (Hyland, 2012: 33). It is not only a question of acquiring the knowledge and skills that are expected but also of "being able to engage in and contribute to the construction of meanings that are important to the community as a competent member of that community" (Tsui, 2011: 33). These participants aim at reaching the goal of building themselves an identity that is positively valued by both content teachers and students (that is, the community) and this need for engagement in the disciplinary community may be explained on the basis of Lave and Wenger's (1991) "legitimate peripheral participation" tenets.

Knowledge of language use in the target discipline/profession/ industry

Most participants (n=15) cited the need to develop and master some kind of pedagogical disciplinary knowledge. In particular, how language is used in a particular discipline, how specific vocabulary features in a particular discipline, and the genres and text types which are characteristic and how

they contribute to communicating within the discipline. As participants explained, "it's not just words, it's more than that. It's the situation, the way you use this vocabulary" (Blanca), and this is because, in comparison with ELT, "I am teaching professionals, future professionals, so I want my students to be good professionals so the aim, the objective, the focus is absolutely different" (Alberto).

Some participants argued that the teaching of the most common technical terms would suffice: "you have to be familiar with the vocabulary, at least with the most frequently used terms" (Yolanda). But for others the more teaching experience, the more vocabulary and the more specialisation are necessary: "I'm also lost sometimes in spite of the 20 years because so much to know, so many words" (Eva).

A third of the teachers talked about the need to learn about the most common genres in the target discipline/profession and explore the rhetorical structure of specialised texts so as to introduce genres as a learning tool in their courses. By way of example, one participant (Eva) elaborated on this issue and described in detail the way she introduced genres as a learning tool in her course (e.g. certificates from classification societies to naval engineering students). She was aware of her need to design and develop a course (or at least some activities of the course) on the basis of the instances of types of oral and written discourse that her students were expected to face in the target profession; therefore, she investigated samples of specialised discourse and also the situations in which such discourse occurred.

Last, teachers commented that a discipline embraces a particular culture and, hence, there arises a need for disciplinary culture awareness. For more than half of the participants the knowledge of some disciplines is difficult to acquire and, as a result, disciplinary knowledge may or may not be a challenge depending on the target discipline: "you need to have knowledge of the subject and it depends as well on the subject" (Laura). The view that emerges thus far is that different disciplines attract different students and, therefore, different teaching approaches are felt to be needed. Some teachers provided clear examples of such differences like "engineers are practical, they do not like oral discussions and see them as a waste of time" (Esther); "they have visual minds so they love watching videos showing what engineers think and how they work" (Victoria). They highlighted that teaching ESP is faced with different demands depending on the target discipline. For instance, Mario and Eva explained that there exists plenty of

textbooks in some areas (business, for instance) whereas in others (like naval engineering) there are very few; as a consequence, they felt a higher or lower need to design and develop their own teaching materials, and even selecting or adapting effectively from what was available became at times more important than developing new materials.

From this group of participants it becomes clear that language knowledge, pedagogical knowledge and disciplinary knowledge on their own are not sufficient to function in an ESP context. Teachers need to go beyond the simple mastery of language systems, they need to know about how language is used in specific contexts, they need to develop genre and discourse analytical skills and they have to establish effective ways to represent disciplinary knowledge to students. It is assumed that ESP teachers are required to assist students in developing not only the target language but also the discoursal requirements and related skills that are necessary to function in a professional community.

For these teachers, ESP was essentially teaching discourse as it occurs within a discipline and promoting effective ways to communicating in a target profession. For instance, they saw the teaching of specialized vocabulary as teaching learners how to apply and use it within the discipline (i.e. situational knowledge). It was also important to be aware of the most salient language features so as to place a greater focus on them. Likewise, it was of utmost importance to understand the situations in which the language is used, the discourse of the discipline, the forms and features of communication in the target profession, and the nature of the communicative events that usually take place (i.e. conceptual knowledge). The teaching of vocabulary was understood as key for the mastery of the language of the target discipline/profession and how to make vocabulary teachable was an important concern; however, the amount and degree of specificity of vocabulary to be dealt with are issues that remain unanswered.

It also deemed necessary for these ESP teachers to explore the most common genres in the disciplines and the rhetorical structure of specialised texts. This point was already raised by Ferguson (1997: 87) in his understanding that teaching ESP very often involved "teaching language for a genre-specific purpose". Among the different approaches to the investigation of disciplinary discourse identified in the literature, genre analysis and corpus analysis stand out as the most common. Texts are the primary source for exploring the language and discourse features of a discipline and

understanding how language relates to the target context. They may also inform learning materials and textbooks so that they become more contextcentered and closer to real life discourse. ESP teachers need to gain knowledge of these two areas as appropriate (Ferguson, 1997; Belcher, 2006; Basturkmen, 2010; Hall, 2013) since the ESP approach to discourse and genre has exerted the largest influence on practitioner knowledge (Ding & Bruce, 2017). The TESP (Teaching ESP) Module introduced at the English Department of the University of Vienna is a good example of how genre analysis and corpus linguistics can inform ESP/EAP teacher education given that ESP teachers are often faced with "the difficult task of teaching many ESPs, including unfamiliar or newly emerging genres" and "the impossibility of predicting the genres that future ESP teachers might be teaching in the next 40 years of their professional lives" (Hüttner, Smit & Mehlmauer-Larcher, 2009: 100).

These teachers' concern with disciplinary cultures suggests that there can be no single model for ESP teaching and that differences across disciplines need to be taken into account (Ferguson, 1997). Each discipline has its own way of thought and embodies different difficulties, learning priorities, teaching goals and educational challenges. Thus, ESP teachers need to be aware of such potential differences and ready to overcome them. Importantly enough, learners have different learning styles depending on the target discipline/profession and this also has an influence on the way they expect (and like) to be taught. These interviews have provided some fine examples of disciplinary culture differences as based on the participants' own experience.

Peer collaboration

Most teachers (n=15) voiced the need for greater collaboration with their peers. Lack of peer collaboration was seen as a cause of regret. As one participant remarked, "we should have meetings and we should talk about our needs but we don't do that" (David). Another said, "sometimes we have the same problems, we don't talk about them and we don't know how to deal with them and perhaps, you know, something that works very well in English for nurses for example could be also useful in English for lawyers" (Lucia). These teachers' suggestions for collaboration with other ESP teachers included: peer tutoring; peer observation; working with experienced home colleagues; using experienced colleagues' materials that have proved efficient; organizing meetings with ESP colleagues regardless of their experience (so as to share common problems or teaching ideas); informal or brief discussions

among ESP home colleagues on issues related to everyday practices. Two thirds wished for closer contact with content teachers and, although opportunities to do this had been limited, two teachers described particular positive experiences. Laura, for example, talked about having received help from a colleague at the law department in designing her English for law syllabus. Last, three of the teachers felt it would be beneficial if they could attend content lectures (related to their ESP branch of teaching).

The lack of personal and professional contact with disciplinary teachers and the isolation from other teachers doing similar work are problems that arise in the literature (e.g. Belcher, 2009) as a "social need" (Basturkmen, 2019: 328). Collaboration among peers is known to have favourable effects on ESP teachers and strengthen "the value of informal learning opportunities" (Ding & Campion, 2016: 552). Also, moments of informal or brief conversations between teachers ("tiny talks") have been found to benefit teacher education development (Zoshak, 2016). Peer observation involves ESP novice or experienced teachers observing other ESP experienced teachers or content teachers during class time. Following these participants' comments, mobility programmes may offer a good opportunity to attend similar courses in other universities, both at home or abroad, and meet other teachers teaching similar ESP learner groups.

Peer collaboration also involves collaboration with content teachers. This means a step further in the roles that language and content teachers have acquired in the field. For this group of participants ESP teachers may benefit from this collaboration in selecting topics/content for the course (i.e. designing a course syllabus), sharing and solving problems about terminology, finding authentic materials and relevant learning resources (particularly those which are not accessible to non-content teachers), designing and developing materials, clarifying conceptual knowledge, or solving problems about common practices discipline/profession. It stands out that none of the interviewees showed concern about CLIL or EMI programmes when voicing this need; therefore, this collaboration may not be understood in the terms of the "adjunct model" anticipated by Arnó-Macià and Mancho-Barés (2015).

Professional development opportunities

All these ESP teachers (n=19) reported the need for teacher support at any stage of their career given that they had been "prepared to teach general English" (Lucia) and not ESP. Besides the peer collaboration already noted, and which was understood as a kind of teacher support, these participants pointed at the organization of courses adapted to the needs of both novice and experienced teachers. For three participants, a good solution would be to include a module on ESP teaching as a part of the English philology degree. For almost two thirds, former experience in teaching English or Spanish as a foreign language was also helpful when faced with ESP teaching duties.

All participants felt that both novice and experienced teachers should receive some form of support. Five of them stressed that support needs change along with the passing of time and for two of them new education changes (such as those required by the EHEA - e.g. CLIL and EMI approaches) also place new demands on teachers for which they have received little or no training. This idea concurs with similar findings in other settings (e.g. Banegas, 2018).

The need for continual professional development regardless of years of experience was mentioned by almost all participants. Also a clear need for engagement in collaborative reflections (i.e. sharing experiences, beliefs and concerns, and reflecting on how to improve their teaching practices and professional development) was identified. Three participants believed that, if compared with ELT, ongoing professional development was much more necessary in this teaching context. For some others, disciplinary knowledge justified on its own the need for continual development. This was an issue of concern particularly among those participants involved in a very wide variety of target disciplines. Teresa is a case in point: after eighteen years in the ESP profession she moved from teaching agriculture to industrial engineering and was faced again with the need to develop disciplinary knowledge in view of successful teaching.

The literature suggests that typically only some teachers who come to teach ESP have received formal training (Basturkmen, 2010). Also, the provision of more ESP teacher education opportunities and more programmes in language education offering ESP as an area of specialisation has been advocated (Hamp-Lyons, 2011; Hall, 2013; Basturkmen, 2014). These ESP teachers have not received any specific training in ESP and they have learnt from practice and by gaining experience over the years; their general ELT education and training provides them with a strong background and a very rich practical knowledge, but this needs to be supplemented by specialized teacher training (Hall, 2013; Campion, 2016).

Both novice and experienced teachers need support. Participants suggested that novice teachers should be provided with support regarding: the target ESP branch; differences between teaching general English and ESP; how to conduct a needs analysis; how to identify discipline-related linguistic features; genre-based approaches to investigating and learning; how to facilitate the acquisition of specialised vocabulary; how to develop courses and materials; and how to carry out ESP-related research.

Support to experienced teachers may be attained through peer collaboration, as discussed above, attendance to introductory/general courses on particular disciplines so as to be acquainted with content knowledge and its relevance for ESP teaching, running of specific workshops (e.g. materials assessment), organisation of refreshing courses focused on pedagogical issues (e.g. classroom management), setting up of online forums so as to exchange ideas and practices with other ESP teachers in other universities. The little provision for professional development in ESP is a matter of concern (Hamp-Lyons, 2011; Campion, 2016); however, ESP teachers can at present collaborate, discuss and develop on common professional topics (for details about current opportunities see Hamp-Lyons, 2011; Hall, 2013; Basturkmen, 2014; Ding & Campion, 2016).

This group of teachers adopted a number of coping strategies by which they have developed their teaching expertise - e.g. reading books and journals on ESP, attending conferences on ESP and related fields, watching videos with professionals at work, learning from what other colleagues around Spain are doing if faced with similar courses (by discussing practices at conferences or by reading scientific articles). These strategies are informal developmental paths found by ESP teachers given the absence of some kind of direct formal guidance for professional development and, following Tsui (2011), as a result of the ways in which they personally interact within their specific contexts of work and the possibilities that are opened up for their professional learning. As Campion (2016) found, informal activities are very valuable for the development of teachers' specialist knowledge (rather than teaching skills) and for becoming successful in this context.

Lastly, findings have lent strong support to the idea that engagement in reflective teaching provides teachers with professional development opportunities. This, as Jourdenais (2009: 655) puts it, assists teachers in "enhancing their own classroom practices" and "expanding the domain of language education research".

Conclusions

The insights gained from this group of participants suggest that experienced ESP teachers have a plurality of interrelated necessities, concerns, expectations, lacks and wants. Contrary to previous work which focused on individual needs this study has profiled five main groups of needs that suggest clear pointers for future action in the local context: specific training and qualifications in the field of ESP, enhanced disciplinary and pedagogical knowledge, peer collaboration initiatives at various levels and provision of continual professional development opportunities.

Many findings in this study concur with those featuring in general second language teacher education and development (e.g. Jourdenais, 2009; Tsui, 2011) in that the way we think about how teachers learn to teach, how teachers teach second languages, or what constitutes their professional development trajectories are at the core of teaching education. They are also supported in some respects by some of the few studies on ESP teacher needs (see Ferguson, 1997; Jordan, 2000; Alexander, 2007). However, new findings like those related to engagement in the disciplinary community, disciplinary culture awareness, support or professional development strategies illustrate the complex nature of teacher education and development as a field of enquiry and open up new avenues for exploration. By way of example, the suggestion of taking advantage of teaching mobility programmes as a form of peer collaboration and professional development would require the redefinition of the roles of those involved (and the corresponding agreements between institutions) but, hopefully, would contribute to sharing and importing best practices in ESP teaching. It would also have implications for the internationalisation of institutions and, hence, for the globalisation of the ESP teaching profession. To what extent ESP teachers may take advantage of these mobility programmes and in what ways their teaching practices may be redefined are issues which, at present, remain unanswered.

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References

Aguado de Cea, G. & A. Curado Fuentes (2012). "ESP in Spain: Goals, achievements and prospects". Asp 62: 91-107.

Alexander, O. (2007). "Groping in the dark or turning on the light: Routes into teaching English for Academic Purposes". Paper presented at the IALS Teacher Education Symposia 2006. University of Edinburgh. URL: http://www.uefap.com/baleap /teap/ oa ials symposium.pdf [13/05/18].

Alexander, O. (2012). "Exploring teacher beliefs in teaching EAP at low proficiency levels". Journal of English for Academic Purposes 11: 99-111.

Arnó-Macià, E. & G. Mancho-Barés (2015). "The role of content and language in content and language integrated learning (CLIL) at university: Challenges and implications for ESP". English for Specific Purposes 37: 63-73.

Banegas, D. (2018). "Learning subject-specific content through ESP in a Geography teaching programme: An action research story in Argentina". English for Specific Purposes 50: 1-13.

Basturkmen, H. (2010). Developing Courses in English for Specific Purposes. New York: Palgrave Macmillan.

Basturkmen, H. (2014). "Lsp teacher education: Review of literature and suggestions for the research agenda". Ibérica, Journal of the European Association of Languages for Specific Purposes 28: 17-33.

Basturkmen, H. (2019). "Esp teacher education needs". Language Teaching 52(3), 318-330.

Basturkmen, H. & A. Bocanegra-Valle (2018). "Materials design processes, beliefs and practices of experienced ESP teachers in university settings in Spain" in Y. Kirkgöz & K. Dikiltaş (eds.), Key Issues in English for Specific Purposes in Higher Education, 13-27. Cham: Springer.

Belcher, D. (2006). "English for Specific Purposes: Teaching to perceived needs and imagined futures in worlds of work, study and everyday life". TESOL Quarterly 40: 133-156.

Belcher, D. (2009). "What ESP is and can be: An introduction" in D. Belcher (ed.), English for Specific Purposes in Theory and Practice, 1-20. Ann Arbor, MI: University of Michigan Press.

Bocanegra-Valle, A. (2016), "Needs analysis for curriculum design" in K. Hyland & P. Shaw (eds.). 560-576.

Campion, G. (2016). "'The learning never ends': Exploring teachers' views on the transition from general English to EAP". Journal of English for Academic Purposes 23: 59-70.

Dafouz, E. & U. Smit (2017). "A sociolinguistic approach to the multifaceted roles of English in English-medium education in multilingual university settings" in A. Llinares & T. Morton (eds.), Applied Linguistics Perspectives on CLIL, Amsterdam/Philadelphia: 287-306. .lohn Benjamins.

Ding, A. & I. Bruce (2017). The English for Academic Purposes Practitioner. Operating on the Edge of Academia. Cham: Palgrave Macmillan.

Ding, A. & G. Campion (2016). "EAP teacher development" in K. Hyland & P. Shaw (eds.), 547-

Dörnyei, Z. (2016). Research Methods in Applied Linguistics. Oxford: Oxford University Press.

Ferguson, G. (1997). "Teacher education and LSP: The role of specialised knowledge" in R. Howard & G. Brown (eds.), 80-89.

Flowerdew, L. (2013). "Needs analysis and curriculum development" in B. Paltridge & S. Starfield (eds.), The Handbook of English for Specific Purposes, 325-346. Oxford: Blackwell.

Hall, D.R. (2013). "Teacher education for LSP" in C. Chapelle (ed.), The Encyclopedia of Applied Linguistics, 5537-5542. Oxford: Wiley-Blackwell.

Hamp-Lyons, E. (2011). "English for Academic Purposes" in E. Hinkel (ed.), 89-105.

Hewings, M. (2002). "A history of ESP teaching through English for Specific Purposes". English for Specific Purposes World 1(3), URL: http://www.espworld.info/Articles 3/ Hewings paper.htm [01/10/

Hinkel, E. (ed.) (2011). Handbook of Research in Second Language Teaching and Learning, volume II. New York, NY: Routledge.

Howard, R. & G. Brown (eds.) (1997). Teacher Education for LSP. Clevedon: Multilingual Matters.

Huang, L-S. (2018). "A call for critical dialogue: EAP assessment from the practitioner's perspective in Canada". Journal of English for Academic Purposes 35: 70-84.

Hüttner, J., U. Smit & B. Mehlmauer-Larcher (2009). "Esp teacher education at the interface of theory and practice: Introducing a model of mediated corpus-based genre analysis". System 37: 99-109.

Hyland, K. (2012). "The past is the future with the

lights on': Reflections on AELFE's 20th birthday". Ibérica, Journal of the European Association of Languages for Specific Purposes 24: 29-42.

Hyland, K. & P. Shaw (eds.) (2016). The Routledge Handbook of English for Academic Purposes. Abingdon: Routledge.

Jordan, R.R. (2000). "EAP: The human dimension - Changes, difficulties & needs". IATEFL ESP SIG Newsletter 17: 17-21.

Jourdenais, R. (2009). "Language teacher education" in M.H. Long & C.J. Doughty (eds.), The Handbook of Language Teaching, 647-658. Oxford: Blackwell.

Lave, J. & E. Wenger (1991). Situated Learning. Legitimate Peripheral Participation. Cambridge: Cambridge University Press.

Master, P. (1997). "Esp teacher education in the usa" in R. Howard & G. Brown (eds.), 22-40.

Master, P. (2005). "Research in English for Specific Purposes" in E. Hinkel (ed.), Handbook of Research in Second Language Teaching and Learning, 99-115. Mahwah, NJ: Lawrence Erlbaum.

McDonough, J. & T. French (eds.) (1981). The ESP Teacher: Role, Development and Prospects. ELT Documents 112. London: The British Council.

Mozzon-McPherson, M. (1997). "The LSP teacher and independent learning strategies" in R. Howard & G. Brown (eds.), 176-185.

Richards, K. (1997). "Teachers of specific purposes"

in R. Howard & G. Brown (eds.), 115-126.

Ruiz-Garrido, M. & I. Fortanet-Gómez (2009). "Needs analysis in a CLIL context: A transfer from ESP" in D. Marsh, P. Mehisto, D. Wolff, R. Aliaga, T. Asikainen, M.J. Frigols-Martin, S. Hughes & G. Langé (eds.), CLIL Practice: Perspectives from the field, 179-188. Jyväskylä: University of Jyväskylä.

Saldaña, J. (2009). The Coding Manual for Qualitative Researchers. London: Sage.

Silverman, D. (2005). Doing Qualitative Research. London: Sage.

Tao, J. & X. Gao (2018). "Identity constructions of ESP teachers in a Chinese university". English for Specific Purposes 49: 1-13.

Tsui, A.B.M. (2011). "Teacher education and teacher development" in E. Hinkel (ed.), 21-39.

Upton, T. (2012). "LSP at 50: Looking back, looking forward". Ibérica, Journal of the European Association of Languages for Specific Purposes 23: 9-28.

Woźniak, M. (2017). "Esp in clil degree programmes". Esp Today 5: 244-265.

Yang, W. (2016). "ESP vs. CLIL: A coin of two sides or a continuum of two extremes?". Esp Today 4:

Zoshak, R. (2016). "'Tiny talks' between colleagues: Brief narratives as mediation in teacher development". Language Research 20: 209-222.

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NOTES

- ¹ In this study no distinction between "teacher education" and "teacher development" is made because, as claimed by Ding and Campion (2016: 548), in the field of ESP these are overlapping terms "due to significant changes which are occurring in the broad field of teacher education".
- ² As Hewings (2002) attested, the journal English for Specific Purposes only published 10 articles on teacher education in 20 volumes between 1980 and 2001 and this was the topic that awakened the least interest. A closer look at the same journal from 2002 to date (October 2018) shows that teacher education accounts for just three articles in the past 16 years (volumes 21 to 53). This journal, Ibérica, has also published three articles on the topic in 36 volumes (from 1999 to Fall 2018).
- ³ A "mixed method" study involves "the mixing of quantitative and qualitative methods or paradigm characteristics" (Dörney, 2016: 163) so that both approaches are integrated at one or more stages of the research process.

Appendix A. Participants in this study

Participant (pseudonym)	experience (+ other) (years)	ESP field	ESP target students
Alberto	13	Nursing, tourism, business, public administration, wine industry	Undergraduates, master's, in-service workers
Alvaro	7 (+9)	Nursing, tourism, law, information technology, business	Undergraduates
Antonio	34	Criminology, business, economics, chemistry, engineering, accounting	Undergraduates
Blanca	30 (+2)	Business, public administration, industrial relations	Undergraduates
Claudia	12 (+13)	Telecommunications, professional communication, writing for engineers	Undergraduates, masters'
Cristina	22 (+1)	Electronics, telecommunications, academic writing	Undergraduates
David	20 (+10)	Mechanics, electronics, computing engineering	Undergraduates
Esther	27 (+13)	Shipbuilding, marine engineering, port logistics	Undergraduates, in-service naval architects, masters'
Eva	21 (+2)	Shipbuilding, navigation, radioelectronics	Undergraduates, in-service naval architects
Ines	25	Engineering, business, tourism, public administration, advertising, marketing, public relations, wine industry	Undergraduates, master's
Irene	16 (+3)	Journalism, dentistry, sports, economics, energy and mining engineering	Undergraduates
Laura	15 (+3)	Tourism, business, nursing, marketing, finance, law	Undergraduates
Lucia	10 (+10)	Business, tourism	Undergraduates
Mario	24 (+2)	Health science, business, industrial relations, electrical and civil engineering	Undergraduates
Monica	10 (+8)	Tourism, writing for academic publishing	Under- and post-graduates, academics
Paula	32 (+2)	Telecommunications, technical translation, reading for telecommunications	Undergraduates
Teresa	18 (+6)	Agricultural and industrial engineering, academic English, scientific English	Undergraduates, PhD students
Victoria	35	Tourism, civil engineering	Undergraduates
Yolanda	25 (+5)	Aeronautical engineering	Undergraduates

Appendix B. Interview protocol (adapted)

Part Two: Teacher needs

- 1. Could you tell us about how/why you started teaching ESP? How did you come to teach ESP?
- 2. In your view is teaching ESP different from teaching general English?
- 3. Did you know about ESP teaching when you started? How did you learn? Can you recall any specific learning experiences?
- 4. Have you done teacher training, a course, reading on teaching ESP? If so, what topics did the course focus
- 5. What skills/knowledge do you think are needed by ESP teachers? Are the skills/knowledge different compared to those needed by the general English teacher?
- 6. Do you feel particularly competent in certain areas of teaching ESP? How did you develop this competence?
- 7. Are there any skill or knowledge areas in which you feel less competent or confident? Would you like support in this and if so, what form of support would you prefer?
- 8. In your opinion, what would be a good form of support for
 - a) Novice ESP teachers?
 - b) Experienced ESP teachers?