



Identifying the perceived professional development needs of English for specific purposes (ESP) teachers¹

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Abstract. This study aims to identify novice English for specific purposes (ESP) teachers' professional development needs with regard to academic practice, ESP students, curriculum development and program implementation. The research was implemented at a foreign languages department of a foundation university. Research sample was composed of 12 non-native English instructors teaching ESP courses to undergraduate students. A mixed-methods sequential explanatory design was utilized in the study. Findings revealed that the teachers did not know how to cooperate with the faculty and promote students' higher order thinking skills in ESP courses. The results indicated a scarcity of textbooks and materials on ESP teaching besides a need for support during pre and in-service teacher education on how to teach ESP. It was also found the teachers felt insecure when working individually so they sought more collaboration with faculty members and other ESP teachers.

Keywords: English for specific purposes, professional development, needs, novice teachers, mixed-methods design

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INTRODUCTION

English for Specific Purposes (ESP) started to emerge as a field in the late 1960, following the Second World War, a time when more and more people desired to learn English to conduct businesses in international technology and commerce. These eventually required English courses to be designed for specific groups of learners, taking into account the linguistic characteristics of learners' area of work and study (Hutchinson & Waters, 1991). As a result of these developments, and growing research in educational psychology, tailoring ESP courses according to learner needs historically played a pivotal role in both the design and teaching of ESP (Stevens, 1988).

Today, English Language Teaching (ELT) professionals make a distinction between English for General Purposes (EGP) and ESP. While EGP aims at providing students with a solid foundation of English language so that they will build on it in future, ESP refers to the teaching of English for such specific purposes as academic, and occupational (Basturkmen, 2019). ESP is therefore mainly concerned with teaching the specialist language, and "involves teaching and learning the specific skills and language needed by particular learners for a particular purpose" (Day & Krzanowski, 2011, p.5). The words "particular" and "purpose" in Day and Krzanowski's definition deserve further attention. "Particularness" is of great importance in ESP as disciplinary study is the main focus of it, and "purpose" why learners learn ESP is specifically related to their needs in the workplace, with special emphasis on chunks and patterns of language used in particular disciplines and professions. In short, ESP aims "to develop the competencies needed to function in a discipline, profession, or workplace" (Basturkmen, 2014, p.6).

Since its being acknowledged as an area of study, ESP has been widely taught at universities all around the world (Kırkgoz & Dikilitas, 2018) through courses offered such as

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English for Engineers, Aviation English, English for Law, and etc. In English Medium Instruction (EMI) university contexts, ESP has had two main aims to achieve; catering for the needs of learners who need English to “study” and to “work”, which made learner needs a challenging issue to tackle with. Students enrolled in universities where English is the main medium of instruction study to improve their level of English, as they receive their occupational training. What makes this dual function complex is that, as Nunan (2004) asserts, in addition to the linguistic items special to a field, ESP should also be concerned with meeting communicative needs of diverse learners from different disciplines. Kennedy and Bolitho (1984) also underline the importance of the communicative function in ESP courses. For these reasons, ESP is inherently learner and learning centered.

As a consequence of its learner-centered nature, teaching ESP imposes a lot of demands on teachers. The first of these demands is related with the knowledge base an ESP teacher should possess. As previously pointed out, learners from various fields such as aviation, engineering, management, and architecture to name a few specialize in their field of study so that they will fulfill the requirements of their future jobs in a professional and effective manner (Tomlinson, 2003), necessitating a specialization in language learning. It should be acknowledged that this specialization tends to produce challenges for teachers. ESP is usually taught by a language teacher, not an academician with expertise in a particular field. Hence ESP teachers should have subject specific knowledge (Day & Krzanowski, 2011), and elicit content knowledge from students (Savaş, 2009). However, it should be kept in mind that since language teachers are not originally trained to teach subject matter, an ESP teacher’s job gets more difficult (Bell, 1996). What is more, although content knowledge is a must for teachers, it is not enough on its own. Teachers should also be able to present content knowledge in meaningful ways to learners, requiring additional knowledge called pedagogical content knowledge (Darling-Hammond & Baratz-Snowden, 2005; Kunter, Klusmann, Baumert, Richter, Voss, & Hachfeld, 2013).

Another demand is related with the roles of ESP teachers. An ESP teacher takes on different roles and responsibilities. In addition to acting as teachers, they also play a key role as curriculum developers (Gatehouse, 2001), as well as course designers, materials writers, collaborators, evaluators, and researchers (Dudley Evans & St. John, 1998). It would not be wrong to assert that ESP teachers need to carry out additional tasks that teachers who teach EGP do not usually carry out (Basturkmen, 2019). ESP teachers are specialists, “often needs analysts, then designers and implementers of specialised curricula”. However, the literature has not fully considered the implications of these roles (Belcher 2006, p. 135).

Most teachers serving as ESP teachers are language teachers who trained themselves to teach a specific ESP course (Master, 1997). The British Council Report on the state of English in higher education in Turkey (2015) emphasizes that most university teachers do not have enough training in the teaching of ESP, thus lacking skills to develop a department specific curriculum and design teaching materials and activities. The report further maintains that it is crucial for teachers to receive intensive training on the teaching of ESP.

Purpose of the Study

The demand for ESP courses is increasing and more and more universities are beginning to offer ESP courses. The literature in ESP focuses on linguistic descriptions and learner needs, descriptions of syllabi and materials design. However, there has been scant research on ESP teaching, teacher learning and teacher education needs (Basturkmen, 2019, Ding & Campion, 2016), and studies on novice teachers’ development to serve as ESP teachers and their professional growth (Chang, 2017) are limited.

For the purposes of the present study, we aimed to identify the perceived professional development needs of ESP teachers who were employed at a foundation university in Turkey. We specifically investigated professional development needs with regard to the following areas;

- academic practice,
- ESP students,
- curriculum development,
- program implementation

METHODS

A mixed methods research design was utilized in the study. In an attempt to gain more insights into the research question and examine the results in more detail, quantitative and qualitative research are connected using sequential explanatory strategy (Creswell, 2009). As shown in Figure 1, quantitative data were collected and analyzed in the first phase of the study. Then, in the second phase, qualitative data were collected and connected with quantitative results for interpretation.

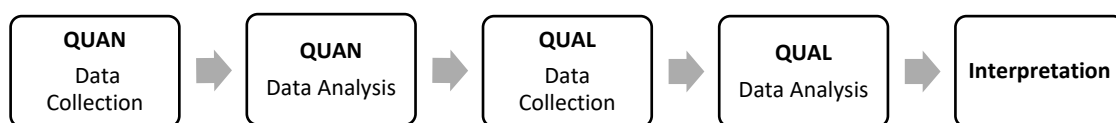


FIGURE 1. Research design

Setting and Participants

The research was implemented in 2018-2019 academic year spring semester at a foreign languages department of a foundation university. ESP curriculum was adopted in the department in 2017 and the program has been coordinated under the guidance of an ESP program coordinator in charge of developing and assessing the courses. Prior to the implementation of the ESP program, all freshmen students used to take Academic Presentation Skills and Academic Writing Skills courses regardless of their faculty. However, the program was being criticized by students and faculty members due to the fact that it fell short of providing basic terms and phrases in science, math, chemistry, logistics, and management, and Academic Presentation and Writing Skills courses were not adequate to support students with their studies in the faculty. ESP courses were taken by the students who were studying in the Faculty of Business Administration, Faculty of Flight Transportation, and Faculty of Engineering. Academic Presentation Skills and Academic Writing Skills were offered to the second grade students in the Faculty of Business Administration. Table 1 illustrates the courses offered in the department along with the number of the teachers giving the courses.

Table 1. ESP courses taught in the department

Faculty	ESP course	n
Air Transportation	Aviation English	1
Engineering	English For Engineering	7
Business Administration	English for Aviation Management	2
	English for Business Administration	1
	English for Logistics	2

The sample of the study was composed of 12 non-native English instructors who were teaching ESP courses to undergraduate students. At the time of the study, none of the participants had received any training on how to teach ESP and were involved in any type of cooperation such as team teaching or designing course materials together with the subject

specialist in or outside of school. Table 2 presents descriptive information about the study participants.

Table 2. *Study participants*

Major	n	%
American Culture and Literature	1	8.3
English Language Teaching	11	91.7
TOTAL	12	100.0
Degree		
Bachelor's	11	91.7
Master's	1	8.3
TOTAL	12	100.0
Teaching experience		
2-4	2	16.7
5-7	8	66.7
8-10	1	8.3
11+	1	8.3
TOTAL	12	100.0
Experience in ESP teaching		
0-1	1	8.3
2-3	8	66.7
4-5	3	25.0
TOTAL	12	100.0
Training to teach ESP		
Yes	1	8.3
No	11	91.7
TOTAL	12	100.0
Cooperation with the subject specialists		
Yes	0	0
No	12	100
TOTAL	12	100

As displayed in Table 2, most teachers (66.7%) have been teaching ESP for 2 to 3 years, and only 1 (8.3%) received a special training to teach Aviation English. When asked, teachers reported that they did not receive any training because the course fees were high, they were not able to find relevant courses, they did not anticipate they would have to teach ESP, and they had no personal interest in teaching ESP. It should also be noted that none of the teachers have cooperated with subject specialists.

Data Collection and Analysis

Data for the study were collected using quantitative and qualitative instruments and gathered in two phases. To gather quantitative data, we used *Competency Framework for Teachers of English for Academic Purposes* (British Association of Lecturers in English for Academic Purposes [BALEAP], 2008), which suggests key professional competencies an EAP teacher should have. The framework was mainly designed to offer guidance to “less experienced teachers” for their professional development in EAP programs.

Based on the competency statements in the framework, we created the items in our questionnaire. The questionnaire consists of four parts and includes 30 items. Items 1-11 on the questionnaire were on “*academic practice*”, 12-16 were on “*ESP students*”, 17-22 involved items on “*curriculum development*” and 23-30 had items on “*program implementation*”. The

respondents were asked to specify their level of agreement to the items on a 5-point Likert scale (1. Strongly disagree; 2. Disagree; 3. Undecided; 4. Agree; 5. Strongly agree).

For data analysis, quantitative data were, initially, analyzed in SPSS software calculating the mean scores and standard deviations of the items. Then, the qualitative data collection process began. Qualitative data were collected through one-on-one interviews with all the participants. Each interview approximately took 20-30 minutes and the participants' strengths, weaknesses in addition to their suggestions for professional development were asked. The interviews were held in Turkish as per the participants' preference. To analyze the data, each researcher listened to the interviews alone and created the codes separately. Later, the codes were compared and reorganized to arrive at the common categories from the data set. The extracts to be used to present the results of the study were translated into English by the researchers and sent back to the participants to confirm their ideas were accurately reported.

RESULTS

Academic Practice

Quantitative data analysis results for academic practice displayed in Table 3 showed that teachers agreed they could "train their students to investigate the practices of their disciplines" (M=3.83, SD=0.83), "work with materials and tasks from different subject areas" (M=3.66, SD=0.77), "take appropriate decisions to teach ESP" (M=3.66, SD=0.88), "provide analytical feedback" (M=3.50, SD=1.16), "read and make sense of systemic language without being a subject specialist" (M=3.50, SD=1.10), "raise students' awareness of discourse features of texts" (M=3.50, SD=1.00), "apply theories of text and discourse analysis to course design" (M=3.41, SD=0.90), and "help students find their way into the writing and speaking practices" (M=3.41, SD=0.90). Analysis of qualitative data revealed that teachers' feelings of self-efficacy mostly resulted from their personal interest in the subject, and educational background;

"Since I have a particular interest in math and science, I believe I'm more comfortable than some of my colleagues with the teaching of ESP courses." (Teacher 3)

"I used to be a science student at high school and my grades were always good. For this reason, I'm familiar with most of the terms we teach and answer most of my students' questions about math, science and chemistry." (Teacher 11)

Teachers also reported that their bonds with students, and CPD opportunities offered in the department facilitate the teaching of ESP;

"My biggest advantage is my relationship with my students. I never behaved as if I were an expert. From the very beginning, I shared with them the fact that we'll learn from each other. This openness helped me a lot in shaping my way. Students came up with suggestions about their needs. I asked them about the things I wasn't very sure about. This developed both me, my course and students." (Teacher 8)

"We take part in CPD practices. We used to do team teaching, lesson study, action research in the prep program. This year, we began to conduct these practices with ESP students and saw several benefits for the course, teachers and students. This is an institutional strength I benefit from." (Teacher 2)

However, teachers were undecided if they could "engage with academic research and literature to inform own practice" (M=2.83, SD=1.11), and "guide students to investigate the genres and expert practitioners" (M=2.66, SD=0.99). They disagreed that they could "work with subject specialists and take account of their different perspectives" (M=1.83, SD=0.57). Teachers reported that they do not "conduct research to inform and improve their practice" for several

reasons. The most important reason for this was lack of time and interest as reported by Teacher 4;

“To be honest, I have neither time nor interest in conducting literature review on the subject. I’m also not very sure about how to do that research, which sources to consult. A more reasonable way, in my view, is to ask for a reading list from a subject specialist.”

In terms of guiding students to “investigate the genres and expert practitioners”, teachers were in need of academic and professional support.

“Without having sufficient background knowledge about engineering, logistics, etc., how am I supposed to give guidance to my students? Thus, we must work side by side with subject specialists and they must guide us first.” (Teacher 7)

Teachers emphasized that cooperation with subject specialists was a necessity. However, they had some hesitations in working with subject specialists as pointed out by Teacher 11 and 6;

“I don’t know if I can, on my own, without informing my coordinator, go and ask for advice from a faculty member. I’ve never tried it but what I’m always told by the coordinator is they’re [faculty members] busy or don’t care much about what we’re doing.”

“Without receiving any feedback from a lecturer from the faculty, we can never be sure if the content is appropriate to our students and if we meet their needs. However, I don’t know who the right person to go and ask for opinions is.”

Table 3. Items related to academic practice

Academic practice		
Item	X	sd
1. I can work with materials and tasks from different subject areas and engage with the ideas they present.	3.66	0.77
2. I can help students find their way into the writing and speaking practices of their disciplines.	3.41	0.90
3. I can work with subject specialists and take account of their different perspectives with regard to knowledge communication.	1.83	0.57
4. I can raise students’ awareness of discourse features of texts in their disciplines.	3.50	1.00
5. I can guide students to investigate the genres and expert practitioners of their specific discourse communities.	2.66	0.98
6. I can train students to investigate the practices of their disciplines (e.g., the use and citation of sources as evidence).	3.83	0.83
7. I can read and make sense of systemic language (technical vocabulary, grammar, syntax, discourse features) in texts without being a subject specialist.	3.50	1.10
8. I can apply theories of text and discourse analysis to course organization, materials selection and development, and assessment.	3.41	0.90
9. I can provide analytical feedback, across the range of features of systemic language knowledge, which promotes accuracy in students’ spoken and written outputs.	3.50	1.16
10. I can take appropriate decisions to teach ESP based on my own knowledge and understanding.	3.66	0.88
11. I can engage with academic research and literature to inform own practice and communicate these ideas to colleagues.	2.83	1.11

ESP Students

The findings under ESP students as displayed in Table 4 demonstrated teachers were in the opinion that they could “provide opportunities and stimulus for critical thinking” (M=3.50, SD=1.08). Nonetheless, qualitative data analysis results revealed that teachers faced challenges in terms of providing their students with opportunities for critical thinking. Teachers 9 and 5 reported on this as follows;

“I believe I do my best to integrate critical thinking skills into my lessons through activities encouraging discussion and problem solving skills, but to some extent. Most activities suggested in the course book are mechanical, fill in the blanks type, and I tend to use them more often.”

“I can’t do this. My knowledge is very superficial. In my general English courses I have confidence in myself and I know how I can develop critical thinking skills in my students. But in ESP, activating higher and deeper thinking skills in students is not very possible.”

Teachers regarded students as important stakeholders who could facilitate the implementation of the program;

“If we as teachers do not communicate well with our students, there is no room for personal and professional development. I’m happy that I’ve formed good relationship with my class and they honestly share with me the strengths and weaknesses of my course.” (Teacher 1)

However, teachers were undecided whether they could “show the use of a range of teaching methods and teacher roles” (M=3.16, SD=1.02), “foster student autonomy” (M=3.16, SD=1.02), “stage the sequence of learning activities” (M=3.08, SD=1.02), and “show how students review and evaluate their own learning” (M=2.75, SD=1.05). Teachers pointed out that not receiving any pre-service and in-service training on how to teach ESP negatively affected their understanding of students and performance as teachers.

“During pre-service education, I was never made aware of the fact that one day I would have to teach ESP.” (Teacher 3)

“If we had been provided with theory or a course on teaching ESP, our job would be easier now. At present, we’re finding our way by trial and error.” (Teacher 12)

“I always thought that after graduation, I would be teaching general English at MoNE or universities. I can’t understand why this wasn’t offered ELT students as a course.” (Teacher 6)

Moreover, teachers also emphasized that ESP courses’ being offered by teachers without much interest into the subject produces ineffective results;

“I’m teaching English for Engineering for the first time. I’m not happy about what I’m doing since I don’t have any idea about and interest in engineering. I know I have to teach the course since there are not so many instructors who can teach it. Yet, with no interest to teach it, how am I supposed to be effective?” (Teacher 2)

“ESP courses should be given by those who are into the subject. It’s hard and ineffective to try to teach something about which you don’t have any prior information. In my classes, I spend the minutes with the fear that my students will ask me something I don’t know. I feel insecure.” (Teacher 5)

Table 4. Items related to ESP students

ESP students		
Item	X	sd
12. I can show the use of a range of teaching methods and teacher roles in response to different types of learner needs	3.16	1.02
13. I can provide opportunities and stimulus for critical thinking in sequences of learning activities	3.50	1.08
14. I can show how students review and evaluate their own learning aims/materials/ activities/ assessment in terms of usefulness for future study	2.75	1.05
15. I can stage the sequence of learning activities from guided to facilitated to autonomous	3.08	1.08
16. I can foster student autonomy through group activities as well as one-to-one tutorials	3.16	1.02

Curriculum Development

Findings in regard to curriculum development are displayed in Table 5. Teachers agreed that they could “select, adapt or create materials and tasks” (M=4.00, SD=0.95), “incorporate analysis of spoken and written texts into teaching” (M=3.75, SD=0.96) “stage and scaffold the teaching of reading and listening” (M=3.75, SD=0.75), “integrate course objectives, language and skills, content and assessment” (M=3.58, SD=0.90), and “use a text-based approach for teaching writing and speaking” (M=3.50, SD=0.79). In terms of materials development teachers believed their experience in teaching general English would help them a lot;

“We’re preparing, adapting, creating many materials for the prep students. This is a great experience. Although the content is different in the faculty, we know how a quality material looks like. I believe I can transfer this skill to my ESP course and create new teaching materials for my course.” (Teacher 4)

Despite being confident in themselves in materials development, when it came to course content, their ideas changed;

“We don’t know if we’re teaching the right content. I always feel the need to speak to a more knowledgeable person or a subject expert.” (Teacher 10)

“Yes, we have the textbooks prepared, written and edited by well-known publishing companies. But we cannot use them since the needs of each institution and class vary, therefore, we need to make additions, extractions and modifications in the textbook. But to do this, there’s a need for subject specialists to give us suggestions.” (Teacher 12)

On the other hand, teachers commented that CPD activities organized in their department enabled them to experiment with new teaching methods, resulting in an improvement in course delivery;

“With CPD, we can try new techniques, we find the courage to try different methods, focus on problems particularly when working as a group. CPD has contributed much to the growth of ourselves as ESP teachers, delivery and content of the course.” (Teacher 1)

However, teachers were undecided if they could “identify aims and objectives of an ESP syllabus to address the gap between students’ competence and what they need for academic study” (M=3.33, SD=0.98). Teachers reported that they did not think they could do so for the reasons stated below;

- 7) *"I can talk about my students' competence to some extent because I know most of them from prep class, but I'm not really sure if I know what they need for academic study."* (Teacher 7)
- "We need to do needs analysis to find out students' academic needs. Without asking students, faculty members, even the graduates, it's unrealistic to design a program."* (Teacher 9)

Teachers also underlined that preparing a syllabus would pose a serious problem to them, too.

"This is a challenging task. Perhaps, I can do it with the support of my colleagues, but on my own I can't prepare a syllabus with aims and objectives included." (Teacher 1)

Table 5. *Items related to curriculum development*

Curriculum Development		
Item	X	sd
17. I can identify aims and objectives of an EAP syllabus to address the gap between students' competence and what they need for academic study	3.33	0.98
18. I can integrate course objectives, language and skills, content and assessment	3.58	0.90
19. I can select, adapt or create materials from appropriate sources and develop appropriate tasks	4.00	0.95
20. I can incorporate explicit analysis of spoken and written texts into sequences of teaching and learning activities	3.75	0.96
21. I can stage and scaffold the teaching of reading and listening for study purposes	3.75	0.75
22. I can use a text-based approach for teaching writing and speaking skills	3.50	0.79

Program Implementation

Findings related to the implementation of the program as displayed in Table 6 revealed that teachers agreed that they could "reflect on and respond to observation or student feedback" (M=4.16, SD=0.57), "integrate course objectives", "language and skills content with assessment" (M=3.91, SD=0.79), "use assessment outcomes to inform teaching and learning" (M=3.91, SD=0.79), "adapt or create materials" (M=3.83, SD=0.93), "select appropriate modes of assessment and design assessment tools" (M=3.75, SD=0.96), "plan and deliver a program of lessons" (M=3.66, SD=1.15), "give feedback on oral and written student performance" (M=3.41, SD=1.24). Teachers reported that they felt self-confident in terms of program implementation thanks to their previous experience.

"It's one of my strengths now. Of course, I gained it with experience in time. A novice teacher may not think in the same way. But now that I'm teaching the ESP course for three years and teaching English for seven years, I believe I can create ESP course materials and teach them effectively in collaboration with my colleagues." (Teacher 10)

In addition, they pointed out that their students were valuable sources in helping them design and implement the program more effectively;

"Before planning the courses and shaping our curriculum, we must ask our students what they expect from an ESP course and what will help them with their courses in the faculty. I noticed that students can come up with a lot of suggestions worth considering for next year's program." (Teacher 8)

On the other hand, they were undecided if they could “integrate teaching of academic language and academic study skills in lessons” (M=3.33, SD=1.07). Teachers reflected on the reasons as follows;

“Since I’m not very sure about the needs of my students, I don’t think I can teach them academic study skills. I know about their weaknesses in language, but I don’t know what they need more to improve academically.” (Teacher 3)

Teachers believed that the root cause for this was lack of books and materials specifically designed for ESP teaching;

“We come across the same course books, materials in ESP. There are relatively more materials for business administration but for engineering it is very limited.” (Teacher 6)

“I know there are not many books on the teaching of ESP. Actually, no textbook can be perfect on its own for our specific aims. Thus, we need to design our own materials but it’s challenging. How? How can we do this? In general English there are hundreds of them, but in ESP not many.” (Teacher 10)

In addition, teachers were of the opinion that they needed to be engaged in research and have more expertise before they could claim that they taught academic language and study skills;

“To agree with this statement, we should do more corpus-based studies. To some extent, I teach academic language with the help of the course book, but I don’t know if it suffices. For academic study skills, it needs more expertise. I’m not very experienced in ESP, so I don’t think I can teach academic study skills in my lessons.” (Teacher 9)

Table 6. Items related to program implementation

Program implementation		
Item	X	sd
23. I can plan and deliver a program of lessons based on a syllabus	3.66	1.15
24. I can adapt or create materials and explain the rationale behind these	3.83	0.93
25. I can integrate teaching of academic language and academic study skills in lessons	3.33	1.07
26. I can reflect on and respond to observation or student feedback on teaching	4.16	0.57
27. I can integrate course objectives, language and skills content with assessment	3.91	0.79
28. I can select appropriate modes of assessment and design or evaluate assessment tools for language and skills for ESP	3.75	0.96
29. I can give appropriate feedback on oral and written student performance	3.41	1.24
30. I can use assessment outcomes to inform teaching and learning	3.91	0.79

DISCUSSION and CONCLUSIONS

It is a well-known fact that what determines the quality of any educational institution is inextricably linked with the quality of its teachers. To improve teacher quality, schools invest money, time and effort in CPD practices. For CPD practices to be impactful, they need to cater for teacher needs. This study sought to identify the professional development needs of ESP teachers, and shed light on the content and delivery of future CPD opportunities for ESP teaching.

In terms of academic practice, results showed that teachers agreed they could perform most of the tasks. It is very promising to see that teachers can readily transfer their skills in EGP to the teaching of ESP when they have got a personal interest in the subject that they teach. They also seem to benefit from student feedback to improve their courses. We must build on such strengths to expand the impact on CPD practices offered.

ESP teachers do not know how to cooperate with the faculty to increase their content knowledge. There needs to be a closer dialogue between ESP teachers and the faculty. This dialogue is critical especially in phases of needs assessment, coursebook selection and materials design. They cannot be sure if they do the right thing for their students. CPD programs should enable faculty members and teachers to meet, discuss needs, expectations and share ideas together.

Teachers reported they did not have time for and interest in engaging in ESP research. Nonetheless, they also find their knowledge in the teaching of ESP to be superficial. As suggested by one of the teachers in this study, conducting corpus-based studies can develop teachers' language awareness. With more language awareness, they might get more autonomous and develop higher quality materials, and integrate critical thinking skills more into their classes.

Results in regard to ESP students revealed that teachers found it difficult to promote students' higher order thinking skills mainly because of their insufficient content knowledge. Students enrolled in ESP courses will know more about the content being taught than the teacher who attempts to teach it. This is an important factor to be considered and accepted by ESP teachers (Day & Krzanowski, 2011). Moreover, an ESP class for a particular subject area might include students with different proficiency levels, and this requires teachers to serve different roles in class. However, ESP teachers seem to be in disagreement about their roles, and they need support to vary roles. Therefore, identifying the roles of ESP teachers and communicating these to students is critical and should be taken into consideration during curriculum development.

The findings of this study are parallel to the British Council report (2015) which states that one of the most important professional development needs of ESP teachers is related with the teaching of ESP. Teachers in our study reported a need for support to vary their teaching methods, and they asked for pre and in service courses on ESP to develop these skills. They think that an elective or compulsory undergraduate course on how to teach ESP would provide several benefits to them. It is apparent that ESP teachers need CPD to develop their ESP teaching skills. More conferences, events, sources on ESP should be offered to teachers.

A significant finding of this study is that teachers believe ESP courses should be offered on the basis of willingness and voluntariness. ESP teachers prefer teaching courses in which they have a personal interest. It should not be forgotten that ESP teachers teach for a field in which they have very limited knowledge, and some ESP subjects might be easier to teach than others (Basturkmen, 2019). Therefore, if possible, the administration can consider distributing teaching of these courses among the voluntary instructors.

The transition from an EGP teacher to an ESP teacher means that teachers will need additional skills in needs analysis, course design, and materials development (British Council, 2015). ESP teachers believe they can better perform these skills as long as they are sure that they picked the right content. To do so, they need support from the faculty. ESP teachers in our study complain about the lack of textbooks and materials on ESP. Thus, they, most of the time, need to create their own course materials. However, they prefer doing this in collaboration with their peers and by receiving support from the faculty members. Therefore, special interest groups where teachers will develop the content of the courses together can be formed in the department.

ESP teachers need to learn as much as they can about their students' professional field to improve the course planning process (Day & Krzanowski, 2011). They do not seem to agree about what students really need and where they should get at by the end of the course. A needs

analysis study involving the opinions of all stakeholders should be conducted before designing the curriculum.

When it comes to program implementation, teachers reported that they learned it through experience, so there should be more collaboration among ESP teachers since only through collegial support can short-term needs of teachers be met in an effective manner. ESP teachers feel insecure when working on their own in the teaching of ESP. They look for the support of other colleagues. Thus, we suggest collaboration be encouraged, and more coordination meetings be arranged in the department.

Further, ESP teachers seem to become more confident in the teaching of ESP, material preparation and assessment after each year they teach the course. Thus, the experienced and less experienced should always communicate ideas, and share experiences.

Research contends that rather than using commercial coursebooks, ESP teachers produce their own materials (Hutchinson & Waters, 1987) as a result of the fact that the commercially produced materials are targeted for a general audience and fall short of meeting contextual needs of a specific group of students (Basturkmen, 2014). In our case, teachers underlined the need for more materials and coursebooks on ESP, and they stated they lacked the specialist knowledge necessary for creating materials from scratch. Moreover, using authentic texts as a solution presents challenges in two ways. First, teachers need an expert's opinion on which text to pick. Second, most of the texts are beyond students' current English level.

Finally, we agree with Day and Krzanowski (2011) who suggest that an ESP teacher with strong pedagogical but limited content knowledge may teach more effectively than a subject matter expert with no pedagogical knowledge, and hope that this study will provide insights into how to support teachers to become even more equipped with not only pedagogical but also content knowledge.

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