

2 Finding the way through the ESP maze: designing an ESP teacher education programme

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Abstract

English for Specific Purposes (ESP) is an area of language Education that has been advancing during the last years due to increased social and professional mobility. Despite this, as shown in the related literature, the area of ESP Teacher Education (TE) is deprived of attention by researchers; as a result, many ESP educators in different countries are General English (GE) teachers with insufficient training in ESP. The present chapter reports on the first findings of a technical action research study, which aims at exploring and addressing the problem of insufficient ESP TE among a specific group of ESP practitioners, suggesting an intervention in the form of an online ESP TE programme. Following the spiral pattern of action research, the study evolves in cycles of continuous improvement. This chapter focusses on the initial stages of the study during which the problem of lack of ESP TE opportunities was identified, and a remedy to this problem, an online ESP TE course, named Online Reflective Teacher Education in ESP (ReTEESP Online), was developed and piloted before its implementation.

Keywords: English for specific purposes, teacher education, technical action research, reflection, online instruction.

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1. Introduction

Almost 60 years after the emergence of ESP (Dudley-Evans & St John, 1998), the economic, political, social, and technological changes that have occurred around the globe have led to an increase in the numbers of people who attend ESP courses. ESP, with all its subdivisions, e.g. English for Occupational Purposes, English for Academic Purposes (EAP), etc., is a field which is currently thriving. Nevertheless, a review of the literature in the field of ESP TE illustrates a lack of research in the area of ESP TE and the need for more ESP TE opportunities which meet the needs of ESP practitioners. This problem in the area of ESP TE exists across the ESP practitioners' communities in many parts of the world (Abedeen, 2015; Bracaj, 2014; Chostelidou, Griva, & Tsakiridou, 2009; Sifakis, 2005), and it is also sensed in the researchers' own context.

Despite the fact that differences between ESP and GE teaching methodology are not significant (Dudley-Evans & St John, 1998), the specialised nature of ESP and its focus on learners' needs give distinctive attributes to the role of ESP educators. As a consequence, the provision of ESP TE is essential, a fact that has been widely acknowledged in the literature (Abedeen, 2015; Basturkmen, 2010; Bell, 2002; Bezukladnikov & Kruze, 2012; Bojović, 2006; Bracaj, 2014; Chen, 2012; Howard, 1997; Johnstone, 1997; Mahapatra, 2011). Nevertheless, despite the differences between them, language teachers mostly receive training focussed on general English Language Teaching (ELT) and not ESP.

Some research studies conducted in the area of ESP TE describe what ESP TE opportunities should involve, how they should be delivered (Abedeen, 2015; Bojović, 2006; Jackson, 1998; Johnstone, 1997; Master, 1997; Mebitil, 2011; Savas, 2009), and outline the kind of knowledge, competences, and skills ESP practitioners should acquire to be successful. Furthermore, they provide advice on the different conventions practitioners need to be familiar with, and elaborate on the ways in which this can be achieved. Drawing on this research, the present study aimed at providing a solution to the problem of insufficient ESP TE that a group of ESP practitioners faced. The solution proposed was an intervention in the form of an online ESP TE programme. The present chapter

aims at presenting the pilot implementation of the programme. The purpose of the study was to investigate the effectiveness of the programme, the challenges participants faced, and the improvements that needed to be made.

2. ReTEESP Online and the context of the research study

A review of the literature as well as an analysis of ESP practitioners' needs in terms of ESP TE (Kakoulli Constantinou & Papadima-Sophocleous, *under review*) showed that the most appropriate solution to address the needs of the particular group of ESP practitioners was the design of an educational intervention, a short-term online ESP TE course founded on a 'practise what you preach' approach inspired by Wallace's (1991) reflective model of TE, based on principles of ESP and the theories of social constructivism and connectivism. Apart from providing information on the content of the course, the literature review and the needs analysis process indicated that the ESP TE course should be delivered online due to practical issues related to flexibility and cost effectiveness (Jung, 2005). The option of attending an online ESP TE course that did not demand the participants' physical presence was more attractive, and furthermore, it provided the opportunity to ESP practitioners from different educational contexts to participate and share experiences. The course created was an online reflective TE course in ESP, named ReTEESP Online.

The current influence of cloud computing in education, and the cost effectiveness, practicality, flexibility, and high scalability of such tools (Kakoulli Constantinou, 2018), were the main reasons Google's cloud computing services for educational purposes, the G Suite for Education, were selected as the most appropriate means to deliver ReTEESP Online (also see Barlow & Lane, 2007; Herrick, 2009; Railean, 2012). The suite had been previously integrated in two EAP courses for first-year students of the Departments of Agricultural Sciences, Biotechnology, and Food Science and Commerce, Finance, and Shipping at the Cyprus University of Technology during the academic years 2016-2017 and 2017-2018 (Kakoulli Constantinou, 2018, 2019), and even though the context in

those cases was different, the researchers gained valuable insights regarding the qualities and affordances of the suite.

ReTEESP Online was designed to be a three-week (maximum six), five-hour per week, free course, intended for (1) ESP educators representing different ESP fields, (2) EFL educators who would like to educate themselves on issues pertaining to ESP teaching methodology, or (3) practitioners looking to update their knowledge on the latest developments in ESP teaching practices. The aim of the course was to engage educators in hands-on activities involving both synchronous and asynchronous communication that would enable them to develop in areas associated with ESP teaching and give them the opportunity to implement their new knowledge in their ESP practice. The course was flexible, depending on the participants' profiles and needs, and it evolved around topics such as ESP and its characteristics, the ESP lesson planning process, ESP students' needs analysis, resources, tools, and tasks for the ESP classroom, the ESP lesson in practice and collaborative reflection on the teaching process. It was based on a reflective model for professional development and a 'practise what you preach' approach (Wallace, 1991), since the techniques and methods of instruction which were used in the course could be used by trainees in their language classrooms. The course adopted a social constructivist perspective to teacher training, taking into account the social context in which the ESP practitioners operate, being based on discussion and a constant exchange of ideas and collaboration (Roberts, 1998). Finally, it was also governed by principles of connectivism, which supports that knowledge is acquired through making connections and extending one's personal network (Downes, 2010; Siemens, 2005).

3. Method

3.1. Methodology

The study employed technical action research, which is the type of action research that aims at improving the educational practice by making it more

efficient and effective, and the practitioners depend on the researcher, who acts as a facilitator, in order to improve the educational practice (Denscombe, 1998; Grundy, 1982). As aforementioned, this chapter describes the findings of the pilot implementation of the study, following Vaccarino, Comrie, Murray, and Sligo's (2007, pp. 14-27) description of the pilot stage of an action research study in the context of The Wanganui Adult Literacy and Employment project. For validation purposes, a 'critical friend' (McNiff, 2002) was engaged consistently with looking at the research from time to time and providing the researchers with critical feedback.

3.2. Data collection tools

Data was elicited through an online questionnaire administered to the participants at the beginning of the course as well as ESP practitioners' reflective journals and comments throughout the course. Moreover, data was also collected through the course facilitator's field notes and focus group discussions which took place after the course completion. The data gathered was mainly qualitative and was analysed using NVivo software for qualitative data analysis.

The coding process was repeated by the external researcher who acted as a 'critical friend' (McNiff, 2002), in order to enhance credibility and validity, avoid research bias, and rule out any misinterpretation of the data. Cohen's (1960) kappa test was run to determine inter-rater reliability, in other words if there was agreement between the researchers' and the second rater's thematic analysis of the data. The results showed that there was almost perfect agreement between the two coders' judgements, $k=.866$, $p<.0005$ (Landis & Koch, 1977).

3.3. Participants

The pilot implementation of ReTEESP Online ran from May 2nd to June 29th, 2017, with six ESP practitioners from Higher Education (HE), who represented a convenience sample, a sample which the researcher had easy

access to (inspired by Cohen, Manion, & Morrison, 2000). Despite the low number of participants, the large amount of data gathered and the triangulation techniques used in the study (use of four different research tools) allowed the extraction of in depth results. To ensure the anonymity of the participants, they were referred to as Teachers 1-6. Table 1 presents some information related to the participants.

Table 1. The participants

Participants: HE ESP instructors	Country of origin	Age
Teacher 1	Spain	30-39
Teacher 2	Cyprus	30-39
Teacher 3	Cyprus	40-49
Teacher 4	Greece	30-39
Teacher 5	Cyprus	40-49
Teacher 6	Cyprus	40-49

All participants had previous experience in teaching ESP ranging from one to 20 years and appeared to be very active in the ESP field, both in terms of teaching ESP and in terms of conducting research in the field. Four participants had an extensive background of teaching experiences. Two of the practitioners were also pursuing a PhD in the ESP field at the time.

4. Results and discussion

The findings from this trial implementation of ReTEESP Online generated important implications for the future refinement and improvement of the course.

The analysis of the data, which was coded and categorised, yielded three general thematic categories. These categories were: (1) participants' profiles, (2) the course experience, and (3) suggestions for improvement of the course. Each of these general categories consisted of a series of subcategories, which consisted of other subcategories, as they appear in Table 2.

Table 2. The thematic categories which resulted from the analysis of data

A. Participants' profiles	B. The course experience	C. Suggestions for improvement of the course
1. Who they are 2. Reasons for attending the course 3. Challenges they face with teaching ESP 4. Beliefs about ESP learners	1. The course content <ul style="list-style-type: none"> • Course material • Tasks • Topics 2. Positive aspects of the course <ul style="list-style-type: none"> • Elements liked • Knowledge acquired • Practices from the course that can be integrated in ESP • Participants' realisations • Participants' high performance in the course 3. Challenges faced during the course <ul style="list-style-type: none"> • Participants' expectations from the course • Collaboration • Participants' failure to meet the deadlines • Negative feelings created • Cases in which knowledge was not acquired • Difficulties faced during the use of certain tools • Changes in plans 	1. Content <ul style="list-style-type: none"> • Organisation • Tasks 2. Presentation of material <ul style="list-style-type: none"> • Facilitator's presence 3. Duration of the course <ul style="list-style-type: none"> • Deadlines 4. Technology tools <ul style="list-style-type: none"> • Facebook closed group • Participants' technology literacy 5. Collaborative work <ul style="list-style-type: none"> • Pairing/organisation into groups 6. Reflections 7. Communication with participants 8. Participants' motivations

4.1. Participants' profiles

The first thematic category, which relates to the six participants' profiles (as presented in [Table 2](#)), revealed the following in relation to the four themes that emerged from the data:

(1) Only one of the participants had received training in ESP as part of their Bachelor of Arts (BA), while the other five had received training on ESP as part of in-service and in the context of conferences and seminars, and that was another reason that made the course attractive.

(2) All participants were very actively involved in conference participation and seminar attendance, and they all tried to keep abreast of the latest developments in the field. They wished to expand their knowledge about ESP teaching and developing teaching materials and also to exchange and share ideas with other colleagues, reflect on them and also to discuss different challenges faced in their everyday teaching in a collective effort to provide solutions. All of them sought to update themselves on the latest developments in the ESP field, and they had a positive attitude towards the idea of continuous professional development.

(3) Teacher 2 identified finding and designing appropriate material which will serve the purpose of the courses that she taught as the major challenge that she faced in her ESP teaching. Despite the fact that relevant material can be found on the internet, according to her "it is never spot on what [she is] looking for". Adapting the material is difficult since, as she added, ESP practitioners are not experts in the area. The same challenge was acknowledged by Teachers 3 and 5. Teacher 3 also added that adapting the material to meet the level of her students meant that the material was not authentic any more. Moreover, Teachers 1, 5, and 6 also stressed the importance of having substantial discipline-related knowledge, which made designing and implementing courses more demanding and sometimes overwhelming for teachers.

(4) In the focus group discussion after the completion of the course, Teacher 1 expressed the belief that students like to remain in their comfort zone and that her job was to take them out of there by engaging them in tasks that would lead them outside the four walls of the classroom, in real-life situations. Furthermore, Teachers 2, 3, and 5 expressed the view that, with no appropriate control by the instructor, students are not engaged in collaborative tasks, but they prefer working individually instead.

4.2. The course experience

The second thematic category that emerged from the data concentrated on a description of the ESP participants' and the facilitator's experiences from the implementation of the course. As far as the positive aspects of the course are concerned, during the focus group discussions, participants generally expressed the view that the course was well-structured and well-organised and it guided them step-by-step through all the tasks. Moreover, they stated that the facilitator's idea of organising them into pairs worked very well. Collaboration among the participants was reported as enjoyable, despite the fact that some said that future participants in the course might express some concerns on the issues of collaboration and sharing, mostly having to do with sharing one's own work. Regarding the ESP lesson plan, which participants were asked to produce and implement in their classes in the context of the course, the fact that the course facilitator had separated the process into different steps gave time to the participants to work on the process and reflect on it thoroughly.

The findings from the facilitator's field notes, the participants' reflective journals, and the focus group discussions revealed that all six participants in the course liked the instructional technology tools that were used, that is Google Classroom, Google Drive, MindMeister, the closed Facebook group, and Skype. These were considered as effective, in the sense that they served the purposes which the course facilitator used them for. Simultaneously, the facilitator thought that these tools were flexible, easy to use, and well-accepted by the participants. In one of the focus group discussions after the completion of the course, Teacher 1 says:

“I really liked, like the interface and how you can go to the stream and see what’s happening, see whether you have submitted your work or not, and the layout is very, it’s very nice. I hadn’t used it before (laughs)... and it was great. We use Google and Google’s best tools for a project but not yet Google Classroom and it’s very nice. And then everything was very clear from the very beginning, very well-organised, well you know, I didn’t get lost in the... you know how sometimes online courses can be very... overwhelming because you don’t know where things are, or you don’t know how to navigate the web pages. Well it wasn’t the case with this course. So, from the very beginning and the introduction everything was very clear and well-organised”.

Teacher 4 agrees, adding the following:

“Yeah, I agree and I think that it was really a good idea to use Facebook as a different kind of platform, a bit more informal, a bit more communicative, not that it wasn’t interactive in the classroom (Google Classroom) but we also had something else um to... er I mean you used it for announcements sort of let us know when something new was up in the course so I thought it was a good outlet and I’ve used Facebook with my ESP courses before, and it was very well-received by the students, and they enjoyed using it and they became very interactive with each other, and they used it to be informed about the course as you did with us, and I thought that was a good way, um to communicate with everyone instead of the standard you know email and this happening and that happening...”.

All six participants also positively welcomed the opportunity to remember how a well-structured lesson plan is designed and the fact that the course combined both a theoretical part (the list of useful readings that the participants were provided with) and a practical part, which involved the implementation of the lesson plan participants had designed. They learned about new learning theories such as connectivism, which they had not heard of in the past, but also remembered some important principles of ESP. They also liked the progress report that the

facilitator compiled somewhere in the middle of the course, in order, on the one hand, to inform participants about their progress, and, on the other hand, to urge those who were behind to complete their unfinished work.

Two of the participants in the course admitted that they gained a lot from the interaction and the exchange of ideas, and that they integrated new things in their courses that they were not aware of previously. Almost all of the participants expressed the view that they benefited from the reflective processes of the course, since reflection made them think about their careers as ESP practitioners, their teaching contexts, their teaching practices, the different roles they assume as ESP practitioners, and the training they had received in developing and delivering ESP courses to a wide range of HE students from different disciplines. Moreover, the course provided them with material and specific tasks they could apply in their ESP classes (e.g. useful readings on which they could base their teaching, sample lesson plans, links where they could find material, etc.) in the new academic year, and also a new understanding in several things. At the same time, the course facilitator's field notes revealed that the constant interaction and exchange of ideas, and also the whole process of checking the participants' work and providing feedback to them, were very enlightening for the facilitator too; after the completion of the course, she too felt that she had gained new knowledge and ideas she could implement in her own ESP teaching classes.

Teacher 4 states the following in one of the focus groups discussions after the completion of the course:

“Well, for me I feel I benefited from the course because I learned new things I can apply in my teaching coming September (she laughs). It's like, I got information I can immediately use and it wasn't random, it wasn't general, it was very specific things that I could apply in my teaching when I'm teaching any department really, so that was the biggest benefit for me... that I had actual material that I can put forward and I also have a new understanding in several things that I hadn't thought of before... and I can plan it, I can plan my lesson accordingly now and also integrate new things that I hadn't been using before”.

On the other hand, the participants also faced challenges. Some of them expressed the view that their expectations were not completely met; these were ESP practitioners that had a similar background as the course facilitator and researcher, therefore one could assume that they were already familiar with the things included in the course, and they expected to be exposed to new ideas. On the contrary, the two ESP practitioners who came from different backgrounds and different teaching contexts did not appear to have any other expectations from the course.

Another challenge that participants faced was related to working together to complete the collaborative tasks and failure to meet deadlines. This is reflected in both the facilitator's reflective journal and the focus group discussions, and it resulted in the extension of the course. They all agreed on the fact that the reason behind this was their workload as well as their other commitments in combination with lack of free time. This might imply that the course was overloaded with materials and tasks, and that participants could not cope with them. In one of the focus groups discussions, Teacher 2 states:

“It was a matter of workload. Maybe if I didn't have so much workload, if I didn't have so much pressure, maybe I could focus more on the things you assigned to us”.

Teachers 3, 4, and 5 also admitted that they did not study carefully some of the material the facilitator had uploaded for them on the platform, again due to lack of time. When files and documents were uploaded on the platform they just scanned through them, missing points that the facilitator considered to be important for the educational process, and paying attention to presentations or materials which were more concise instead of reading useful articles and large word documents. This fact yielded important implications concerning changes that had to be made too.

Another reason which explains this constant extension of deadlines might also be culture. Teacher 1 admitted that the same thing also happened with her students, and she characterised it as a “Mediterranean thing”. As the course proceeded,

the course facilitator's field notes reveal that a few of them started feeling overwhelmed by the course because of the workload. This is also displayed in the focus group discussions, where two of them (Teachers 2 and 5) admitted that they felt extremely stressed when they had to describe their teaching practices on the basis of theories of learning. They found this a difficult task to do, and 'complained' that the level of performance of a couple of participants in the course was too high, and this created feelings of stress and fear of inferiority.

Finally, some practical difficulties regarding the use of certain technology tools were mentioned in the facilitator's field notes, the participants' reflective journals, and the focus group discussions. A challenge that was noted mostly by the facilitator was the fact that due to the practical difficulties faced by the participants during the course (e.g. the sound on a PowerPoint presentation was not working, participants forgetting passwords, connection problems during Skype Webinars, etc.), she had to be flexible, constantly alert, and make different changes in the course while it was taking place. This was not something unexpected, since changes of instructional plans is a practice that occurs in all sorts of teaching contexts.

4.3. Suggestions for improvement of the course

The third major thematic category that derived from the data related to suggestions for the improvement of the course. As Table 2 illustrates, the suggestions expressed by the participants and the facilitator revolved around five major themes: (1) the content of the course, (2) the presentation of material, (3) the duration of the course, (4) the technology tools used for the delivery of the course, (5) collaborative work, (6) reflective procedures, (7) communication with participants, and (8) participants' motivations.

As far as the content of the course is concerned, data from the participants' reflective journals and focus groups indicated that the course was found overwhelming and hectic in terms of content by four of the participants. Moreover, Teacher 3 suggested that it would have been a lot better if the facilitator provided the participants with different practical ideas on where to find material for their

classes and how to conduct needs analysis, and perhaps even provide them with ready-made questionnaires. In addition, as noted in the facilitator's field notes, the facilitator also suggested that it would have been useful for the participants to be introduced to different ESP organisations/networks/social media groups that they could be members of as well as conferences on ESP in order to expand their network and develop further. Moreover, according to the course facilitator, ideas on resources and materials could have been added earlier in the course, before participants had started working on their ESP lesson plans so that they would have an idea on where and how to look for their scenarios, tasks, etc.

As far as the presentation of the material is concerned, in one of the focus group discussions, Teachers 3 and 5 supported that material should be easily accessible and comprehensive but concise. Furthermore, they suggested that the facilitator should present the material in video tutorials, as this would give the course a more personal nature and would make it more interesting.

Regarding the duration of the course, in the focus group discussions, both the participants (all six of them) and the facilitator shared the view that increasing the duration in order to allow more time for the participants to complete the tasks would not be wise, because there might be participants who will not be willing to continue the course for too long. They suggested having participants engage in shorter and more concise tasks that can be completed in a short period of time, combining some of the units so that the course shrinks, and sending kind reminders to the participants that have missed deadlines. Another idea suggested by Teacher 2 was having a set day for submissions. Finally, Teacher 6 expressed the view that having a minimum and a maximum time of duration and allowing for flexibility within that period of time could be another solution to the problem. It should always depend on the audience, their commitments, and needs.

Regarding the technology tools used for the delivery of the course, the suggestions expressed by the participants were the following: first of all, in the focus group discussions, to eliminate the problem of having two Google accounts (one personal and one for the course), Teacher 2 suggested synchronising the Google

accounts provided by the facilitator with the participants' personal Google accounts. That would make it easier for them to see all the notifications posted by the facilitator. Secondly, Teacher 6 expressed the opinion that the Google Drive folder should have been more structured, with all the folders needed created by the facilitator from the beginning of the course. A tutorial or a video clip might be needed to guide participants on how to use the tools that will be needed for the course. Furthermore, participants' presence in the closed Facebook group after the completion of the course was regarded as a good idea, since the network built would continue to exist this way.

In relation to collaboration, Teachers 3, 5, and 6 suggested that some of the tasks could be delivered individually instead of collaboratively, and that sharing should not be applied to all the stages of the course. This stemmed from the participants' concerns regarding sharing their personal work and ideas, and also from the practical difficulties they faced during collaboration. Moreover, to eliminate the possibility of participants working on tasks separately, Teacher 3 suggested that the facilitator could assign pieces of the work that can be finished only when other participants step in.

On the issue of reflection, it was suggested that a folder for their reflections should be created from the beginning of the course so that the participants are not lost in the cloud; this was suggested by Teacher 6 in the focus group discussions. Moreover, in the same focus group, another participant (Teacher 3) stated that the questions posed to enact reflection were repetitive, and they needed to be more specific every time. Finally, Teacher 6 suggested that constant reflection following every single unit might be unnecessary and might cause repetition.

As far as issues related to communication with participants are concerned, the facilitator's field notes revealed details that could minimize certain practical constraints, e.g. participants being notified before the course commences about the tools that will be used for communication so that they create Skype accounts on time, in case they do not have them. Furthermore, Google Calendar should be used for the deadlines of tasks, and it should be made known to the participants at the beginning of the course.

Last but not least, regarding motivation enhancement, all participants in the course suggested having some kind of reward for the end of the course, something the participants can look forward to, such as a membership in an ESP organisation, a book, or a voucher, which could motivate the participants and reduce potential withdrawals from the course. Selection of the winner could be done by draw, and all participants should be provided with certificates of attendance.

5. Conclusions

This chapter has presented the initial stage of a technical action research study which emerged from the need of ESP instructors for ESP TE. This first trial implementation of the intervention proposed yielded important results for its refinement and improvement for the next stage of this study, and despite the constraints of technical action research, it might provide useful insights to future endeavours in the field of ESP TE.

Notwithstanding the limitations of any type of action research, in this case technical action research, which rest with its inherent nature to provide solutions that can be applied in a particular context, in comparison to other research methods that aim at generalising results, the benefits of action research are many. Coming from a more modernised and more socially oriented stream of thought, the value of any action research study rests on the fact that, through the whole process, both the participants and the researchers grow professionally, gaining enlightenment and deeper understanding of themselves and the social or professional environment they operate in through practice and reflection. Such examples of research constitute ‘bodies of case study evidence’, and according to McNiff (2002), “the more case studies that appear, the more powerful the body of knowledge becomes” (p. 26).

In this sense, the value of this technical action research study lies in the fact that the researchers together with the participants in the study underwent a transformational journey which involved the development of ideas and insights

by all the participants in relation to ESP teaching practices. Furthermore, the present study generated findings that related to the profiles of ESP practitioners in tertiary education and their needs in terms of ESP TE, the content, technology tools, and generally the nature that an online reflective ESP TE could have, parameters that could be positively perceived by ESP practitioners in ESP TE contexts, and others that could constitute challenges. Finally, the study presented useful suggestions for future ESP TE endeavours considering the specific needs of ESP practitioners as well as their teaching contexts. These results may yield some potential implications for future attempts in the field of ESP TE.

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