The aim of the paper is to contribute to the development of English for Specific Purposes (ESP) by offering various blended solutions to curriculum design, material development, teaching methods, and forms of study. In the first part, the English language teachers’ attitude to teaching ESP is examined, and the findings show that it is not very positive. So in the second part, the paper aspires to propose inspirational blended solution practices for teaching ESP, based on the author’s experience of designing and teaching a successful ESP course to Military Air Traffic Controllers at the University of Defence in Brno in 2013-2019. Most of the recommendations stem from the evaluation of data collected from the participants’ feedback over the sixteen course runs. The author argues that the attendees’ expertise should be employed and openly appreciated during all stages of the course development, and its relentless improvement through iteration retrospectives. Finally, the paper provides examples of close cooperation among ESP teachers, course participants, and subject experts, which may contribute to the course design refinement and to making teaching ESP an enjoyable experience.

Keywords: Air Traffic Controllers, Aviation English, blended learning, case study, curriculum development, English for Specific Purposes, feedback, Moodle LMS, survey.

1 INTRODUCTION

The origin of English for Specific Purposes (ESP) dates back to 1960s. According to T. Hutchinson and A. Waters (1987, p. 19) [1], ‘ESP is an approach to language teaching in which all decisions as to content and method are based on the learner's reason for learning’. A wide range of theoretical and methodological topics and practical implications concerning ESP is covered by T. Dudley-Evans and M. J. St John (1998) [2]. Within ESP they distinguish between English for Academic Purposes (EAP), intended mainly for university students, and English for Occupational Purposes (EOP), designed for professionals. Further development of ESP is aptly summarized and discussed by E. Jendrych (2013) [3] who addresses the complexity of teaching ESP in the 21st century with the emphasis on an increasing importance of needs analysis.

Teaching ESP has witnessed significant changes since the introduction of multimedia. Their ability to combine different content forms, such as text, audio, video, still images, animation and various kinds of interactivity contributes to the complexity of the language acquisition process. In addition, advanced authoring tools enable the lecturers to create their own learning objects which allow the users to interact with their contents both inside and outside their classrooms. The initial experience with distance language learning is thoroughly examined by C. White (2003) [4]. Though she is a fan of distance learning, she wisely emphasises the role of face-to-face sessions. Nowadays, a blend of the face-to-face and online learning methods contributes significantly to specialized English language acquisition, especially in higher education [4, 5, 6]. The latest development of blended technologies in language learning classrooms are presented by D. Hinkelman (2018) [7]. He points out the importance of iterative processes in designs for blended learning, which involve making revisions on a regular, cyclical basis to improve design elements. This is in line with the central focus of the paper.

1.1 English language teachers’ attitude to English for Specific Purposes

In practice, ESP is known as an approach to teaching English as a foreign or second language meeting the needs of learners who learn a foreign language for use in their specific fields, such as science, technology, medicine, business, or academic learning. The integration of a specialized content and foreign language poses numerous challenges and often becomes a matter of concern to many English language educators. In some cases, the educators become self-taught persons in the fields of study in which they might not genuinely be interested in. They have to master substantial amount of vocabulary from the particular field, and, frequently, they have to create their own study
materials. So it usually takes considerable and sustained effort and time before gaining confidence in teaching ESP.

However, there is a bright side of teaching ESP. As the ESP courses are tailored to the learners needs, the learners are usually highly motivated and grateful for the opportunity to take an ESP course, namely the participants of courses for Occupational Purposes. They are willing to share their professional experience among themselves and the teacher, and thus create pleasant and supportive atmosphere in the classroom. As soon as the teacher has gained confidence in teaching a particular ESP specialization, gathered and tested relevant teaching materials, created and improved the syllabus, and, above all, established rapport with the learners, teaching ESP might become an exciting experience; it brings various opportunities for the teacher’s professional development, and opens the door to various research activities. Due to its uniqueness, the teaching process offers unprecedented opportunities for creativity and blended solutions. Being aware of the fact that teaching ESP has its advantages and disadvantages, and that university teachers have different attitudes to ESP, the first research question in this paper is aimed at examining the UoD teachers’ attitude to ESP.

1.2 Curriculum development in English for Specific Purposes

The central aim of the paper is searching effective ways for enhancing the effectiveness of ESP teaching and learning through curriculum development. The concept and practical implications of course design in ESP are thoroughly discussed by T. Hutchinson and A. Waters. For them, ‘course design is a process by which the raw data about a learning need is interpreted in order to produce an integrated series of teaching-learning experiences, whose ultimate aim is to lead the learners to a particular state of knowledge’ (T. Hutchinson and A. Waters, 1987, p. 65) [1]. They critically examine the approaches to course design, and strongly favour the learning-centred process at the expense of language-centred and skills-centred designs (pp. 72-4, 92-7, 167). Hutchinson and Waters argue that the course design process should be dynamic and interactive, and ‘factors concerned with learning must be brought into play at all its stages’ (p. 77).

Their opinions are consistent with the theory and practice of adult learning. D. MacKeracher (2004, pp. 40-41) [8] summarizes findings about the function of the self-concept and self-esteem in the learning activities of adults. They indicate that adults learn best when they are involved in developing learning objectives for themselves, as they are influenced by past learning experiences, present concerns and future prospects. In other words, they are interested in acquiring skills which can be put to immediate use. Obviously, the EOP course participants are the best candidates to exercise their own responsibility in the choice of learning objectives of a course, and its content and methods, as presented in the following chapters.

1.3 Case study: Course for Military Air Traffic Control Officers

The author’s experience stems from teaching ESP to University of Defence (UoD) students, and mainly to Military Air Traffic Control officers (MATCos). The research draws on designing and teaching the course named ‘Speaking Refresher for MATCos’ at the University of Defence in Brno in the years 2013-2019. This course belongs to the category of EOP which covers situations in which learners are studying English for work related reasons. The course originated in response to the Air Force Headquarters demand to provide MATCos with training that would refresh their speaking and listening skills before taking their regular mandatory tests to validate their language proficiency endorsement. The research examines the course curriculum development and refinement, based on close collaboration with the MATCos. The following subchapters give brief characteristics of the course.

1.3.1 Course objective

Language proficiency requirements for pilots and air traffic controllers are set by the International Civil Aviation Organization (ICAO), a UN agency specialized in codifying the principles and techniques of international air navigation. The course objective is to refresh and enhance the MATCos’ ability to communicate effectively in both routine and non-routine situations at least at the intermediate level of English language proficiency. The content of the course is focused mainly on plain English as opposed to radiotelephony. It is exam oriented, aiming at levels 4-5 according to the rating scale issued by International Civil Aviation Organization (ICAO) [9]. The course design, study materials and teaching methods serve this purpose.
1.3.2 Course characteristics

Every ESP course should be tailored to the needs of its participants in a way which complies with their personality traits. Research results offered by S. Toms (2016) [10] present Air Traffic Controllers as calm, calculated and sure-footed, not easily unnerved, but testing the ground thoroughly, and liking to do things ‘by the book’. They approach tasks in an analytical and business-like way, and like to plan ahead and be well prepared. The implications are that they can facilitate discussion around a variety of risk-related topics, and that they are able to adopt effective strategies in dealing with any challenges. Moreover, they are considered great team players. All these traits make them not only excellent ESP learners, but also effective course designers.

The process of the course design was congruent with the learner-centred approach to curriculum design. The UoD language educators established channels of communication with aviation lecturers, ICAO examiners and air traffic controllers with the aim to address the MATCos’ the occupational needs, collaborate on the course design and select or create suitable teaching material. The course was planned for two weeks including 60 teaching hours. The structure of the course for each day is simple: 90 minutes of grammar in aviation context; 90 minutes of practising exam skills, namely picture description, repeating and assessing information and reactions to non-standard situation in aviation; and 90 minutes of participants’ presentations on aviation topics. More details about the initial stages of the course design and the structure of the course are presented by E. Stankova (2016) [11].

Since the course for MATCos is scheduled for two weeks only, time is precious. Meeting the course objectives in such a short time requires effective planning. Due to high motivation, the course participants are willing to study before and after the course. Two weeks before the course starts, they obtain by e-mail information about the course, the course schedule and a package of guidelines on how to prepare for their presentations. They have to sign up for two aviation topics in a sharable Google document, revise principles and phrases for giving successful presentations, and prepare two presentations for delivery in the course. After giving the presentations during the course and improving them according to feedback from other participants, the presentations are uploaded and stored in the UoD Moodle Learning Management System (LMS) [12], and thus contribute to the extensive Aviation English e-learning support, which serves them during and after the course. By extending the course activities before and after the course, the participants take advantage of blended learning approach: face-to-face and distant forms of study.

Teaching the course for MATCos requires specific methods. First, the course is exam oriented, and the main required functions that are practiced are introductions, description, asking questions, explaining, re-stating information, summarizing, sequencing and giving advice. For this purpose, the participants are offered plenty of stimuli, and are encouraged to react to them in a very straightforward way. Second, the methods respect the common personality traits of Air Traffic Controllers, as mentioned above. So the approach is rather deductive, starting by giving rules, then examples, then practice; rather than inductive, which starts with examples and asks learners to find rules. It might be their adherence to rules and the time constraint of the course that speaks in favour of the deductive approach. In terms of feedback on their errors in speaking, the attendees require in most cases on-the-spot correction, since they are aware that communicative approach, which has been a recommended and popular approach in foreign language teaching over the last decades, has not paid as much attention to accuracy as required in air traffic communication.

Over the 16 runs of the course, plenty of teaching materials have been gradually developed, tested and improved. Electronic materials have been systematically saved in the UoD Moodle LMS for further retrieval, as well as many links to abundant aviation online sources, such videos on Youtube.com and aviation websites. Some exercises in the UoD Moodle, created mainly for practicing aviation vocabulary, are interactive and provide the learners with feedback. Electronic materials are used almost in all sessions and between them, as well as prior and after the course. Thus the course content and teaching methods have become a blend of well proven traditional printed materials and deductive methods, updated by electronic sources of different nature and modern methods of using them.

The contentment of the course participants is constantly monitored by asking them for oral feedback during the course, and written assessment after the course. Their suggestions feed needs analysis and serve for further refinement of the following course runs. They are presented and offered for discussion below.
2 METHODOLOGY

2.1 Research questions

Based on twofold research interest of this paper, two research questions have been formulated.

1 What is the UoD English language teachers’ attitude to teaching ESP?
2 What recommendations can be derived from the case study to facilitate teaching ESP courses and to improve the quality of them?

As the paper deals with two research questions, two data sets have been gathered, analysed, evaluated and discussed below. Microsoft Excel has been used for graphical representation of the data.

2.2 Data set 1: Survey on teachers’ attitude to English for Specific Purposes

The author constructed an electronic questionnaire survey with the aim to learn about her colleagues’ attitude to teaching ESP. The questionnaire was created online using the website of the company called Survio s.r.o. [13], which also provided statistics. The questionnaire was answered in April and May 2019 by twenty UoD teachers who have had some experience in teaching ESP. Only some relevant answers, which are in line with the focus of the paper, are presented. The relationships among responses are represented by bar graphs in Fig. 1 in the RESULTS section.

2.3 Data set 2: Case study - course participants’ feedback on the course

The data set comprises quantitative and qualitative data from the course participants’ feedback on sixteen course runs. The paper and pen questionnaire was constructed with the aim to obtain data about the extent of their satisfaction with the course and their suggestions for its further improvements. The responses were gathered gradually at the end of the course runs from the total of 99 participants in 2013-2019. The most important questionnaire items, which have influenced course design, teaching methods and materials are presented in the paper. The relationships among closed responses are represented by bar graphs in Fig 2 in the RESULTS section. Relevant open responses are presented in section 3.2.2.

3 RESULTS

3.1 Survey on teachers’ attitude to English for Specific Purposes

The attitude of twenty UoD teachers to teaching ESP is expressed by the answers to the following four questions.

1 I prefer teaching General English to EPS.
2 I welcome the opportunity to teach ESP in the case I have already taught a course aimed at the same specialization.
3 I welcome the opportunity to teach ESP even though I have never taught a course aimed at the same specialization.
4 The teacher’s preparation for ESP sessions is more demanding than the preparation for General English sessions.

The results are represented as bar graphs in Fig. 1 below. The horizontal axis represents the number of answers, and the vertical axis refers to the responses to the four above mentioned questions. The responses show that most teachers prefer teaching General English to ESP (68.4% are on the positive side of the scale). However, in the case they have already taught an ESP course aimed at the same specialization, the majority of them (94.8%) welcome or rather welcome the opportunity to teach them. Up to 67.4% of the teachers are reluctant to teach ESP courses, if they have had no experience with the given specialization. The reason might be that the teacher’s preparation for ESP sessions is more demanding than the preparation for General English sessions, as agreed by all respondents. Though the research sample is relatively small, the responses indicate that teaching ESP is not very popular with teachers, unless they have had some previous experience with the given specialization.
3.2 Case study - course participants’ feedback on the course and its implementation

The feedback questionnaire contains both closed-response and open-response questions. The answers of 99 respondents are presented.

3.2.1 Closed responses and their implementation

The attendees were asked the following closed-response questions.

1. As you know, the aim of the course is to refresh speaking and listening in the context of air traffic control. Did the course meet your expectations in this regard?
2. Did the course structure and syllabus serve your needs?
3. Did the course material suit you?
4. Did the teachers’ approach to teaching appeal to you?
5. Should radiotelephony be included in the course content, if it was taught by a subject specialist?

The answers were counted up and plotted on the graphs presented in Fig. 2.
The horizontal axis represents the number of the answers, and the vertical axis refers to the responses to the set of five questions stated above the graph. The responses to the first four questions are of paramount importance for the educators. They show that the course meets the participants’ expectations and that the process of pursuing the course objective is appropriate. The responses indicate that all 99 course participants are on the positive side on the scale of their satisfaction with the course.

Question number 5 is an example of a query enabling the attendees to make a decision on the content of their course. The graph indicates that the answers vary, so no significant preference is expressed. Thus incorporating radiotelephony in the course is not a priority for the attendees.

The results resonate with the findings published by the author in 2016 after eleven course runs [11]. Nevertheless, it is important to continue seeking feedback after each course run because apart from monitoring the overall satisfaction, it can bring valuable suggestions, as shown in the following subchapters.

3.2.2 Open responses and their implementation

In the open responses, the participants expressed their opinions and provided suggestions on the course improvement. Based on their comments, suggestions and wishes, the course has been evolving as follows.

- Several topics of participants’ presentations have been added, such as Parts of aircraft, Military aircraft, Czech Air Force, Airport services, and Visual and instrument flight rules.
- Extensive E-learning support for learners of Aviation English has been developed to encourage sustainable lifelong learning in the UoD Moodle LMS [9].
- Sharable Google documents have been created and used to assist the teacher in online communication with course participants, mainly for signing up for presentations.
- Adding radiotelephony to the syllabus is being considered and discussed.
- Concerning feedback on attendees’ mistakes in oral performance, immediate feedback is used most often, except for the presentation sessions when delayed feedback is more appropriate and does not undermine the confidence of the speakers.

3.3 Author’s feedback on successful sessions

Over the last three years, some participants reoccurred in the course and are planning to attend the course again. So it is necessary to innovate the course, namely teaching materials, and to employ new topics for presentations. During the evolution of the course, the author has been looking for innovations, which would boost participants’ engagement and make the course even more appealing. One of the ideas, which has been successfully implemented, is inviting guest specialists to give presentations and conduct discussion. To illustrate this conception, some concrete examples follow.

- The topics of Medical Issues and First Aid were presented by a medical student in the course.
- The topics of Emergency Situations and Airspace were presented by two subject experts.
- Frequent problems occurring at the ICAO examinations were addressed by an interlocutor.

Conversely, the course participants were asked to meet with UoD students majoring in Air Traffic Control. As real subject experts, they were willingly answering student’s questions in a natural discussion, which benefited both sides and contributed to their content and language integrated learning. All of these sessions were highly appreciated by both the course participants and guests.

4 CONCLUSION AND RECOMMENDATIONS

The results of a small scale survey show that teaching ESP is not very popular with English language teachers. One of the main reasons is that the teacher’s preparation for ESP courses is extremely demanding. Based on the case study, the author offers some recommendations which should assist language teachers in facilitating ESP courses of high quality.

Each course design represents an open dynamic process subject to numerous changes and refreshing innovations brought about by constant informal feedback and formal evaluation. The attendees’ expertise should be employed and openly appreciated during all stages of the course.
development. Particularly important is their engagement in the iterative process aimed at improving
design elements of the course. Some suggestions, which have contributed to the popularity of the
course and could enrich other ESP courses, are as follows:

- The course should be tailored to the needs of its participants in a way which complies with their
  personality traits.
- The course can be extended by online learning prior and after the course.
- The participants can take part in electronic material development, and their products can be
  uploaded to LMS systems for further study.
- They can assist the educators in the selection of relevant subjects, topics and teaching
  methods.
- Subject experts might be invited to bring more expertise to the classroom.
- Close cooperation between ESP teachers, course participants and subject experts brings new
  opportunities for further research.

The author believes that similar case studies enable educators to further develop their understanding
and knowledge of what is involved in effecting a successful course design.

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