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NEEDS ANALYSIS IN ENGLISH FOR SECURITY STUDIES

Abstract

ESP has become an increasingly important branch of ELT imposing new requirements and criteria to be met by teaching professionals and ESP practitioners. Designing an ESP course is one of these requirements, with learner needs analysis as its key first stage informing further steps within this complex cyclical process. This paper presents and discusses the results of a needs analysis of students of security studies in relation to their professional careers as perceived by first- and second-year students and the academic staff of the University of Belgrade - Faculty of Security Studies. Questionnaires were administered to these three groups of stakeholders, who were asked to evaluate the importance of language sub-activities within communicative language activities for students' professional careers. Their evaluations were analysed to identify the most important language activities for all three groups and then compared to find similarities and differences in their perceptions. This paper offers insight into how these findings can be used to inform course design so as to best reflect security students' needs and enable them operate effectively within target communicative situations.

Keywords: course design, ESP, needs analysis, questionnaire, security studies

1 Introduction

English for specific purposes (ESP) has become one of the most prominent areas of English language teaching since its emergence in the 1960s, offering a new approach to language teaching aimed at meeting the learners' specific needs. Due to the increasing importance and dominance of English in academic and professional communities and its status as "the world's predominant language of research and scholarship" (Hyland, 2006, p. 24), many universities offer ESP courses to their students.

English as a foreign language has been taught to and learned by the students at the University of Belgrade for decades as one of several foreign languages and it is the only foreign language taught at the University of Belgrade - Faculty of Security Studies. The Faculty was founded in 1978 as the Faculty of National Defence. In 2006, it was renamed the Faculty of Security Studies and its curriculum was broadened and redesigned to focus on the interdisciplinary field of security studies. Currently, two compulsory English language courses are taught at the Faculty: English language I, a first-year course, and English Language II, a second-year course. Both are intended to teach English for security studies.

English language teachers at the Faculty design these courses and course materials themselves. However, given that security studies is a relatively recent discipline that came to prominence only after the Second World War (Williams, 2008), and that our Faculty has focused on the interdisciplinary field of security studies only recently, it is understandable that there has been a lack of adequate English language course materials and course books based on needs analysis that teachers at the Faculty could use or build on.

The study presented in this paper is part of an effort to design English language courses for students of security studies drawing on ESP theory and methodology, with needs analysis as the first stage. Its aim is to identify and analyse the English language needs of the students of the University of Belgrade - Faculty of Security Studies, and help them acquire knowledge and skills essential for their professional careers.

In subsequent sections, we present the theoretical framework, the methodology employed to obtain the data for our study, i.e., the instrument we designed and the data collection procedure, and the statistical methods we used to analyze the obtained data. We then turn to the results of our analysis and discuss their implications for ESP course design at the Faculty of Security Studies in Belgrade. In the conclusion, we summarise the findings of our study and address some of its limitations that might be overcome by further research.

2 Theoretical framework

ESP is, as has been noted by Woodrow (2018, p. 9), "a relatively recent branch of English-language teaching (ELT)", which originated in the late 1960s. As Hutchinson and Waters (1987, p. 6) underlined, it was "a phenomenon that grew out of a number of converging trends". Its emergence was provoked by the global scientific/technological and economic development and increase in international trade, which in turn led to a need to communicate in English on a global scale and to an increase in the number of international students (Hutchinson & Waters, 1987; Woodrow, 2018). In such circumstances, and with no adequate language

approach, ESP was born to meet the particular and specific learners' needs. Its emergence and growth were, at the same time, influenced and shaped by the developments in the field of linguistics and educational psychology (Hutchinson & Waters, 1987).

According to Hutchinson and Waters (1987, p. 9), "ESP is not a monolithic universal phenomenon" and, from its beginnings in the 1960s, it has undergone a number of phases of development. The earliest ESP, between the 1960s and early 1970s, focused on register analysis, i.e., on the language at the sentence level and "on the grammar and vocabulary of scientific texts" (Woodraw, 2018, p. 10). In its second phase in the 1970s, ESP shifted its attention towards rhetorical functions, and consequently moved away from the sentence level, trying to understand organisational patterns in texts, i.e., "how sentences were combined in discourse to produce meaning" (Hutchinson & Waters, 1987, p. 11); it is against this background that discourse analysis developed in later years (Woodraw, 2018). Needs-based courses emerged in the late 1970s and early 1980s (Dudley-Evans & St John, 1998) with the work of the Council of Europe and Munby's *Communicative Syllabus Design* (1978). They focused on needs analysis, i.e., on analysing and classifying needs based on the language required to function effectively within target situations. Munby proposed a profile of the learners' needs in terms of communication purposes, communicative setting, means of communication, etc. (Hutchinson & Waters, 1987; Woodraw, 2018). In the next phase of ESP development, in the 1980s, the attention was shifted to study skills and strategies, thinking processes that underpin language use and adequate strategies (Alfehaid, 2011; Dudley-Evans & St John, 1998; Hutchinson & Waters, 1987). In its, as some authors noted, fifth stage, Hutchinson and Waters (1987, p. 12) emphasised 'target situation analysis', the term they considered more accurate than the term 'needs analysis' and stated that "target situation analysis stage marked a certain 'coming of age' for ESP". In their work they proposed a learning-centred approach to ESP, as opposed to previous language-centred and skills-centred approaches (Alfehaid, 2011), which they claimed was based on "the principle that learning is totally determined by the learner" (Woodraw, 2018, p. 11). In its next phase, in the 1990s, ESP diversified and a number of courses emerged. Some identified genres as their approach to an ESP course design and offered different definitions (Bhatia, 1997; Swales, 1990). As Woodraw (2018, p. 11) suggests, some authors have contributed to the "use of corpora of lexis or texts and computer technology" within ESP. Corpus studies help identify lexical and grammatical patters found in texts to inform ESP course design (Woodraw, 2018).

Although ESP has undergone different phases, and shifted its focus from sentence level to discourse, needs and functions, skills, learning processes, etc., not one of them has proved comprehensive enough, faultless or ideal. ESP has undoubtedly benefited from all of them, but it seems that today's ESP is best described as 'a multidisciplinary approach' or an "acceptance of many different approaches and a willingness to mix different types of materials and methodologies" (Dudley-Evans & St John, 1998, p. 30).

ESP is usually classified into two main branches: English for academic purposes (EAP) and English for occupational purposes (EOP). Within these two branches there are certain subdivisions, i.e., EAP is classified as English for general academic purposes (EGAP) and English for specific academic purposes (ESAP) (Hyland, 2006) and EOP is often classified as English for professional purposes and English for vocational purposes (EVP) (Dudley-Evans & St John, 1998; Woodraw, 2018). Depending on the setting, field of education and level of experience

(Woodraw, 2018), "this is not a clear-cut distinction: people can work and study simultaneously" (Hutchinson & Waters, 1987, p. 16) and consequently these categories may often overlap (Belcher, 2004).

Designing an ESP course is a complex and cyclical process comprising several components, the number and type of which differ depending on the author/model (Alfehaid, 2011). These usually include: needs analysis, course objectives and teaching aims, syllabus design, materials selection, methodology, assessment, evaluation (Alfehaid, 2011; Flowerdew, 2013; Hutchinson & Waters, 1987; Hyland, 2006; Woodraw, 2018) and these are closely integrated and interrelated. Central place within ESP belongs to needs analysis which is, as noted by Hutchinson and Waters (1987, p. 54), "the irreducible minimum of an ESP approach to course design". The fact that needs analysis is often referred to as "the backbone of ESP course design" (Woodraw, 2018, p. 21) or "the cornerstone of ESP" (Dudley-Evans & St John, 1998, p. 122) testifies to its paramount importance for the process of every course design. Consequently, this kind of analysis is seen as "the foundation on which all other decisions are, or should be, made" (Belcher, 2006, p. 135).

The term 'analysis of needs' was first introduced in the 1920s by Michael West and included two important factors: "what learners will be required to do with the foreign language in the target situation and how learners might best master the target language" (West, 1994, p. 1). And it was later reintroduced, as has been already mentioned above, in the late 1970s and early 1980s by the ESP movement. As Chambers (1980, p. 26) noted, the term 'needs' is "both ambiguous and imprecise" and so far it has been conceptualised differently by myriad authors. Nevertheless, most of them agree that needs are multifaceted, they are subject to change, they are not fixed facts, they can vary from person to another person, they are constructed and can be identified and analysed (Alfehaid, 2011; Brown, 2016; Caplan & Stevens, 2017; Woodraw, 2018). It is "a much broader term and also includes linguistic and learning factors" (Hyland, 2006, p. 73). No matter whether they are real or ideal needs, objective or subjective, target or learning needs, the term 'needs' is often regarded as an 'umbrella term' (Hyland, 2006, p. 73) covering a range of concepts. The analysis of learners' needs may be approached as the target situation analysis (TSA), learning situation analysis (LSA) or present situation analysis (PSA). TSA implies identifying the target situations and analysing the activities, tasks, linguistic features of the language required to operate efficiently in these settings. LSA explores learning situations trying to discover how learners learn to do what they are supposed to do with language in their target situation. Hutchinson and Waters (1987, p. 54) distinguish "between 'target needs' (i.e., what the learner needs to do in the target situation) and 'learning needs' (i.e., what the learner needs to do in order to learn)". Within the category of target needs, they differentiate necessities, lacks, and wants. Necessities are "the type of needs determined by the demands of the target situation; that is, what the learner has to know in order to function effectively in the target situation" (Hutchinson & Waters, 1987, p. 55). Lacks are defined as the gap between "target proficiency" and "existing proficiency of the learners" (Hutchinson & Waters, 1987, p. 56). Necessities and lacks refer to target needs in an objective sense. However, wants are the necessities of the target situation as perceived by the learners themselves and they refer to "what the learners want or feel" they need to learn (Hutchinson & Waters, 1987, p. 56). They further argue that "it is quite possible that the learners' views will conflict with the perceptions of other interested parties" (Hutchinson & Waters, 1987, p. 56). Learning needs focus on the learning situation and learner's mind

and motivation, i.e., on how they are to learn the language required for the target situation (Hutchinson & Waters, 1987). These needs include learners' views about their learning goals and interests, learning background, preferred methodology, learning styles, etc. Dudley-Evans and St John (1998, p. 123) argue that needs are best defined if TSA and LSA are accompanied by PSA, which is "a third piece of the jigsaw". This kind of analysis provides information of the learners' actual knowledge (Dudley-Evans & St John, 1998) and it is concerned with identifying what learners know at the beginning of the course, their strengths and weaknesses, as perceived by students themselves and their language teachers. All these approaches complement each other and needs analysis is thus most comprehensive if all of them are combined (Flowerdew, 2013; Taillefer, 2007). Essentially, needs analysis is a process of collecting information about learners' needs, or as Brown (1995, p. 36) defined it, needs analysis is "a systematic collection and analysis of all subjective and objective information necessary to define and validate defensible curriculum purposes that satisfy the language learning requirements of students within the context of particular institutions". A broader definition of needs analysis is given by Hyland (2006):

> Needs analysis refers to the techniques for collecting and assessing information relevant to course design: it is the means of establishing the *how* and *what* of a course. It is a continuous process, since we modify our teaching as we come to learn more about our students, and in this way it actually shades into evaluation – the means of establishing the effectiveness of a course. Needs is actually an umbrella term that embraces many aspects, incorporating learners' goals and backgrounds, their language proficiencies, their reasons for taking the course, their teaching and learning preferences, and the situations they will need to communicate in. Needs can involve what learners know, don't know or want to know, and can be collected and analysed in a variety of ways. (pp. 73–74)

Bearing in mind different theoretical approaches to needs analysis and the opinion that although "learners are not likely to be well-informed about their present or future communicative needs, due to their lack of knowledge of the tasks they will be required to perform" (Serafini et al., 2015, p. 21), "subjective needs are often as important as objective" ones (Graves, 1996a, p. 14) as they increase "the student's motivation" (Chovancová, 2014, p. 43), this study aims at identifying both subjective and objective needs of students attending English language courses at the Faculty of Security Studies, focusing on skills and language activities that are important for learners' target careers as perceived by both students and members of the academic staff.

The aim of our paper is therefore to address the following research questions:

1. What are the target situation language needs of the students of security studies as perceived by the students themselves, i.e., what language activities do the students of security studies find important for their target careers?
2. What are the target situation language needs of the students of security studies as perceived by the members of academic staff, i.e., what language activities do the members of the academic staff find important for students' target careers?

3 Methodology

To realise the set aim, a questionnaire was employed. Three groups of respondents participated in the research. All the respondents were included in the study based on convenience sampling, a non-probability sampling method.

The first two groups of respondents included first- and second-year students from the Faculty of Security Studies. Upon completing their secondary education, students in Serbia are expected to have achieved A2.2/B1/B2.1 level according to the Common European Framework of Reference (CEFR) (Council of Europe, 2001). Their language proficiency depends on the type of school (different curricula and different number of language classes per week) as described and defined by relevant national documents/bylaws (Nejdanović Tomić, 2015; Pravilnik o planu i programu nastave i učenja za gimnaziju, 2020) and their individual achievement. After they have been admitted to the Faculty, their level of English is not tested.

The third group of respondents included members of the academic staff (professors and teaching assistants), i.e., subject specialists, who were members of both the academic and professional community.

3.1 Data collection instruments

Two parallel questionnaires, one for students and one for the academic staff, were specially designed to obtain information relevant to the English language needs of the students of security studies with regard to their academic and professional careers. They focused on the modes of communication and corresponding communicative language activities as defined by the Common European Framework of Reference for Languages – Companion Volume with New Descriptors (CEFR Companion) (Council of Europe, 2018). This volume outlines four modes of communication – reception, production, interaction and mediation – and 11 categories of language activities within those four modes. Each of the activities is further divided into a number of sub-activities that specify its different aspects.

The CEFR Companion replaced the traditional model of four skills since it "has increasingly proved inadequate to capture the complex reality of communication" (Council of Europe, 2018, p. 30) and this modified approach to language activities is closer to real-life language use since "a move away from the matrix of four skills and three elements (grammatical structure, vocabulary, phonology/graphology) may promote communicative criteria for quality of performance" (Council of Europe, 2018, p. 31). This change is particularly important as it emphasises that "since these are the types of categories used in language learning for the field of work, a link between a general-purpose language and language for specific purposes (LSP) would be facilitated" (Council of Europe, 2018, p. 31). This transition to modified and updated descriptors clearly reflects "increasingly varied contexts and practices of academic communication" (Hyland, 2006, p. 2) at the tertiary level of education and new demands imposed on students and roles they are supposed to take on. As Hyland (2006, pp. 1–2) underlined, "the communicative demands of the modern university, much like the modern workplace involve far more than simply controlling linguistic error or polishing style".

In the light of all this, we designed the questionnaires so as to include the four modes of communication, the activities and their sub-activities from the CEFR Companion. However, we introduced two changes to increase the clarity of some questionnaire items. In three cases, two sub-activities were merged into one because their descriptions were too similar to be certain that the respondents would be able to tell them apart. Additionally, the CEFR Companion divides Mediation into three distinct activities (Mediating a Text, Mediating Concepts and Mediating Communication), but in our questionnaires Mediation was included as one activity and several of its sub-activities were merged. This decision was based on our assessment that the respondents would not be familiar with mediation as an activity and that they would have difficulty distinguishing between three different types of mediation. The final version of our questionnaires contained nine language activities and each activity had at least one sub-activity.

Most of the sub-activities in the questionnaires were accompanied by a number of typical examples of target communicative situations to help the respondents understand them and differentiate between them. In some cases, the sub-activities in the questionnaire were adapted to fit target situation language activities and communicative situations students of security studies are likely to encounter in their professional careers (Wozniak, 2010). Finally, the questionnaires were translated into Serbian to avoid the possibility of the respondents' level of English proficiency interfering with their understanding of the questionnaire items.

The questionnaires consisted of several components: Section 1 – background information (11 items in the student questionnaire and three items in the academic staff questionnaire); Section 2 – the importance of language sub-activities within nine communicative language activities for academic studies and performance as perceived by both students and members of the academic staff (41 items); and Section 3 – the importance of language sub-activities within nine communicative language activities for learners' professional careers as perceived by both students and members of the academic staff (41 items).

The three groups of respondents were asked to rate the importance of each sub-activity within the nine activities for the academic studies of security students (Section 2) and for students' professional careers (Section 3) on a four-point Likert scale: 'unimportant', 'moderately important', 'important, or 'very important'. Throughout the questionnaires, the sub-activities were referred to as activities because the respondents were unlikely to be familiar with the details of the division of language activities in the CEFR Companion.

This paper focuses on the importance of language activities for learners' professional careers as perceived by both students and members of the academic staff in Section 3 of the questionnaires (Table 1).

Table 1
Communicative language activities and sub-activities in Section 3 of the questionnaires

Listening Comprehension How would you rate the importance of the following listening comprehension activities for your professional career[a]/security students' professional careers[b]?
1. Understanding conversation between other speakers (e.g., interactions between other speakers, discussions, debates) 2. Listening as a member of live audience (e.g., lectures, speeches, presentations) 3. Listening to announcements and instructions (e.g., technical information, public announcements, warnings) 4. Listening to audio media and recordings (e.g., podcasts, radio news and documentaries)
Reading Comprehension How would you rate the importance of the following reading comprehension activities for your professional career[a]/security students' professional careers[b]?
1. Reading correspondence (e.g., emails, discussion forums, postings) 2. Reading for orientation (e.g., textbooks, articles, resolutions, strategies, websites) 3. Reading for information and argument (e.g., textbooks, articles, resolutions, strategies, websites) 4. Reading instructions (e.g., emergency information and warnings, security information and alerts) 5. Reading as a leisure activity (e.g., literary texts, short stories, comics, magazines)
Audio-visual Reception How would you rate the importance of the following audio-visual reception activities for your professional career[a]/security students' professional careers[b]?
1. Watching TV, film and video (e.g., TV news programme, current affairs programme, documentaries)
Spoken Production How would you rate the importance of the following spoken production activities for your professional career[a]/security students' professional careers[b]?
1. Sustained monologue: Describing experience and giving information (e.g., detailed account of an event or impressions from a conference, reporting project result) 2. Sustained monologue: Putting a case (e.g., during a speech, in a debate) 3. Public announcements (e.g., introductory speech, announcing different events or persons) 4. Addressing audiences (e.g., a seminar/conference presentation)

Written Production How would you rate the importance of the following written production activities for your professional career[a]/security students' professional careers[b]?
1. Creative writing (e.g., descriptions, stories, reviews) 2. Written reports and essays
Spoken Interaction How would you rate the importance of the following spoken interaction activities for your professional career[a]/security students' professional careers[b]?
1. Understanding an interlocutor and conversation 2. Informal discussion (with friends) and formal discussion (meetings) 3. Goal-oriented co-operation (e.g., discussing a document, organising an event, cooperating on a project) 4. Obtaining goods and services (e.g., negotiating transactions, negotiating a solution to a dispute, making complaints) 5. Information exchange (e.g., discussing texts or audio/video content, exchanging information on an ongoing event) 6. Interviewing and being interviewed 7. Using telecommunications (e.g., mobile phone)
Written Interaction How would you rate the importance of the following written interaction activities for your professional career[a]/security students' professional careers[b]?
1. Correspondence (e.g., exchanging messages, personal and formal emails) 2. Notes, messages and forms (e.g., taking different notes and messages, filling in different forms)
Online Interaction How would you rate the importance of the following online interaction activities for your professional career[a]/security students' professional careers[b]?
1. Online conversation and discussion (e.g., online chat with multiple interlocutors, composing posts for others to respond to, commenting on posts and contributions of others) 2. Goal-oriented online transactions and collaboration (e.g., an online project/activity, asking about the availability of a product or service)

Mediation How would you rate the importance of the following mediation activities for your professional career[a]/security students' professional careers[b]?
1. Relaying specific information in speech and writing (e.g., information found in texts, announcements, instructions, reports)
2. Explaining data in speech and writing (e.g., diagrams, tables, charts, figures, graphs)
3. Processing text in speech and writing (e.g., summarising texts, identifying similarities and differences between texts, recognizing and clarifying the purpose and viewpoint of the text)
4. Translating a written text in speech and writing
5. Note-taking (e.g., during lectures, meetings, seminars)
6. Expressing a personal response to creative texts (including literature) (e.g., personal interpretation of the work, describing characters)
7. Analysis and criticism of creative texts (including literature) (e.g., comparing two works, giving a reasoned opinion about the work, critically evaluating literary techniques)
8. Facilitating collaborative interaction with peers (e.g., making suggestions on collaboration, responding to suggestions, acknowledging contributions, proposing solutions, noting ideas and decisions on group work)
9. Collaborating to construct meaning (e.g., highlighting main issues, summarising, evaluating and linking various contributions, framing a discussion)
10. Managing interaction (e.g., assigning different roles to participants, monitoring and directing group work, intervening to prevent disruptive behaviour)
11. Encouraging conceptual talk (e.g., linking ideas of group members, encouraging group members to elaborate on their thinking, asking questions that build on different contributions)
12. Facilitating pluricultural space (e.g., collaborating with people of different cultures, appreciation of different cultural perspectives, contributing to a shared communication)
13. Acting as intermediary in informal situation (with friends and colleagues) (e.g., informally communicating what is said in a conversation, conveying important information)
14. Facilitating communication in delicate situations and disagreements (e.g., demonstrating sensitivity to different viewpoints, helping parties in disagreement to better understand each other, establishing common ground)

Note. [a]Student questionnaire. [b]Academic staff questionnaire.

3.2 Data collection procedure

The questionnaires were administered in March 2020. Ethical approval for this study was obtained from the Vice-Dean for Undergraduate Studies of the Faculty of Security Studies at the University of Belgrade.

During their English Language classes, first- and second-year students had been informed about this research and its importance in detail, and asked to take part in it. Their participation was anonymous and completely voluntary. On the previously agreed date, they were invited to fill in an online questionnaire (Google form) in a networked computer classroom. Prior to filling in the questionnaire, they were informed about ethical issues and that the results would be used only to fulfil the aims of the study, i.e., its results would be used to inform the English language course design for students of security studies. A cover letter containing all the necessary information about the research, its nature and purpose, as well as the ethical issue was included in the questionnaire.

Academic staff members had been informed about the research informally during meetings prior to being formally asked via an email to fill in the questionnaire online (Google form).

3.3 Data analysis

The respondents provided us with their evaluations of the importance of language sub-activities within nine language activities. To determine and compare the importance of the language activities included in our questionnaires as a whole, we conducted a principal component analysis (PCA) to identify the underlying component(s) measured by the questionnaire items within each activity (Joiliffe, 2010). PCA was carried out on the dataset comprising students from both years; these results were subsequently applied to the dataset containing the answers from the academic staff (the number of respondents among the academic staff being too small to allow a PCA analysis). We used eigenvalue over one as a criterion for identifying the relevant dimensions within each activity set (Joiliffe, 2010). This analysis was carried out for eight out of nine activities since Audio-visual Reception had only one sub-activity. The internal consistency of the items within each activity was measured by the Cronbach's alpha coefficient (Dörnyei, 2010). For those activities where more than one component was extracted, we used the varimax rotation to maximise the dispersion of loadings within factors, i.e., to find the best fit for each item among the identified factors (Field, 2013; Tenjović, 2000).

Once we identified the components (language activities) in the questionnaires, we calculated the scores for each of the activities as a mean of the sub-activity evaluations. To be able to compare the evaluations of their importance between the respondents, we carried out One-way ANOVA to determine if the differences between the means of the three groups were statistically significant (Field, 2013; Ravid, 2020). Where ANOVA results suggested that there were differences between the three groups, we ran post hoc tests in order to determine which pairs of groups had statistically significant differences. We chose a conservative post hoc test, Tamhane's T2 (Field, 2013).

4 Results

The student questionnaire was filled in by 323 students out of 734 first-year and second-year students (a 44% response rate). 171 out of 393 first-year students agreed to participate in the research. Of those, 26.3% were male and 73.7% female; the average age of first-year students was 19 (M = 19.25, Mode = 19). 152 out of 341 second-year students responded to the questionnaire. Of those, 19.7% were male and 80.3% were female; their average age was 20 (M = 20.17, Mode = 20).

As far as the first-year students are concerned, 43.9% of them learnt English for 13 years and more, 48% of them for 9–12 years, 7.6% of them for 5–8 years, and 0.6% of them for 1–4 years. Regarding the second-year students, the majority of them (59.9%) learnt English for 13 years and more, 36.8% of them for 9–12 years, and 3.3% of them for 5–8 years. The large majority of both first-year students (91.9%) and second-year students (96.7%) learnt English during their entire previous primary and secondary education. Therefore, their levels of English proficiency were between A2.2 and B2.1 levels according to the CEFR framework. Together with the remaining respondents who did not learn English throughout their previous education, they were considered mixed-ability groups.

15 out of 39 members of the academic staff (38.46%) filled in the questionnaire. Of these, three were teaching assistants, one was assistant professor, seven were associate professors and four were full professors.

4.1 Language activities

The responses to items in Section 3 of our questionnaires gave us insight into the importance attached to particular language sub-activities by the two groups of students and the academic staff of the Faculty of Security Studies for security students' professional careers. PCA allowed us to identify the underlying component(s) measured by the questionnaire items within each activity, i.e., to determine if the evaluations of sub-activities could be used to draw conclusions about the perceived importance of language activities as a whole. For seven out of eight activities, one principal component or factor was identified. Table 2 presents the results from the PCA analysis for these activity sets: eigenvalues (including the percentage of variance explained by each component within the set of sub-activity variables) and the correlations of variables with the extracted factor. All of the items within each group had a strong correlation with the first component. Cronbach's alpha value for these activities was as follows: $\alpha = .863$ for Listening Comprehension, $\alpha = .809$ for Reading Comprehension, $\alpha = .893$ for Spoken Production, $\alpha = .715$ for Written Production, $\alpha = .906$ for Spoken Interaction, $\alpha = .841$ for Written Interaction and $\alpha = .836$ for Online Interaction. The values were above .7, .8 or .9, indicating an acceptable, good or excellent internal consistency of the items in the scale, respectively (George & Mallery, 2019).

Table 2
Results from a principal component analysis of seven activity sets

	Initial Eigenvalues				Component Matrix	
Language Activity	**Component**	**Total**	**% of Variance**	**Cumulative %**	**Variable**	**Component 1**
Listening Comprehension	1	2.852	71.309	71.309	1	.502
	2	.469	11.724	83.032	2	.519
	3	.408	10.200	93.232	3	.491
	4	.271	6.768	100.000	4	.487
Reading Comprehension	1	2.927	58.543	58.543	1	.461
	2	.770	15.397	73.940	2	.474
	3	.557	11.142	85.082	3	.483
	4	.423	8.470	93.551	4	.450
	5	.322	6.449	100.000	5	.358
Spoken Production	1	3.034	75.847	75.847	1	.512
	2	.446	11.162	87.009	2	.521
	3	.357	8.914	95.923	3	.487
	4	.163	4.077	100.000	4	.479
Written Production	1	1.560	78.004	78.004	1	.707
	2	.440	21.996	100.000	2	.707
Spoken Interaction	1	4.512	64.727	64.727	1	.376
	2	.750	10.710	75.437	2	.383
	3	.533	7.617	83.054	3	.403
	4	.378	5.406	88.460	4	.338
	5	.320	4.575	93.035	5	.390
	6	.284	4.050	97.085	6	.388
	7	.204	2.915	100.000	7	.365
Written Interaction	1	1.726	86.323	86.323	1	.821
	2	.274	13.677	100.000	2	.731
Online Interaction	1	1.720	86.010	86.010	1	.857
	2	.280	13.991	100.000	2	.781

Note. The extraction method was principal component analysis (PCA). The variables (sub-activities) in the component matrix are presented in the same order as in Table 1.

One activity, Mediation, had two principal components so its items were rotated using the varimax method (Table 3). Based on the correlations of variables (sub-activities) with the extracted components (Table 4), seven sub-activities were found to represent one component – Mediating Concepts and Communication – and the other seven sub-activities were found to belong to the second component – Mediating Texts. The internal consistency of the items in both components was excellent (Cronbach's alpha was .907 for the first component and .921 for the second component) (George & Mallery, 2019).

Table 3
Results from a principal component analysis of Mediation

		Initial Eigenvalues			Rotation Sums of Square Loadings		
Language Activity	**Component**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
Mediation	1	8.150	58.217	58.217	4.895	34.967	34.967
	2	1.195	8.536	66.752	4.450	31.785	66.752
	3	.808	5.771	72.523	.808	5.771	72.523
	4	.722	5.154	77.677	.722	5.154	77.677
	5	.575	4.104	81.782	.575	4.104	81.782
	6	.451	3.222	85.004	.451	3.222	85.004
	7	.405	2.896	87.900	.405	2.896	87.900
	8	.358	2.560	90.460	.358	2.560	90.460
	9	.306	2.185	92.645	.306	2.185	92.645
	10	.269	1.925	94.570	.269	1.925	94.570
	11	.242	1.729	96.299	.242	1.729	96.299
	12	.210	1.499	97.798	.210	1.499	97.798
	13	.165	1.176	98.974	.165	1.176	98.974
	14	.144	1.026	100.000	.144	1.026	100.000

Note. The extraction method was principal component analysis (PCA) with an orthogonal (varimax) rotation.

Table 4
Correlations of variables with the extracted components in Mediation

Language Activity	**Rotated Component Matrix**		
	Variable	**Component 1**	**Component 2**
Mediation	1		.265
	2		.272
	3		.372
	4		.468
	5		.397
	6		.406
	7		.381
	8	.373	
	9	.454	
	10	.415	
	11	.425	
	12	.336	
	13	.237	
	14	.302	

Note. The variables (sub-activities) in the component matrix are presented in the same order as in Table 1.

With Audio-visual Reception as one component, the total number of components in our questionnaires was ten. Once we determined these ten principal components, we were able to compare and contrast the evaluations of importance of language activities as a whole between our three groups of respondents.

We used the raw scores of sub-activities to calculate the sample means for each of the nine components containing more than one sub-activity. For Audio-visual Reception, we used the raw score of the sub-activity representing this activity. Together, these figures provided us with a numerical value of the importance assigned to these components by first-year students, second-year students and the academic staff, which we present together with their standard deviations in Table 5.

The mean scores of first-year students all fall within the range of 2.89–3.39. No activity was scored above 3.5 and three activities (Audio-Visual Reception, Written Production and Online Interaction) were scored (barely) below 3, indicating that overall first-year students found the language activities to be important, but not very important for their future careers.

The mean scores of second-year students fall within the range of 3.04 to 3.41. Although no activity has a score above 3.5, second-year students also did not score any of the activities below 3, which indicated that on average they found the activities to be important, but not very important for their careers.

With regard to the academic staff, all the scores fall within the range of 3.20 and 3.73. The academic staff scored 5 out of 10 language activities above 3.5. In other words, they found all of the activities to be either important (3) or very important (4).

If we compare the results of the three groups of respondents, we can identify an increase in the scores between the groups. All language activities were evaluated as more important by second-year students compared to first-year students and they were also evaluated as more important by the academic staff compared to students of both years. The results of One-way ANOVA showed that there were statistically significant differences ($p < .05$) between at least two groups of respondents in Reading Comprehension ($F(2, 335) = 5.329$, $p = .005$), Written Production ($F(2, 335) = 3.773$, $p = .024$), Written Interaction ($F(2, 335) = 5.698$, $p = .004$), Online Interaction ($F(2, 335) = 4.254$, $p = .015$) and Audio-visual Reception ($F(2, 335) = 6.713$, $p = .001$). However, the results of post hoc Tamhane's T2 tests did not reveal any statistically significant differences in the scores between the two groups of students except for Audio Visual Reception ($p = .016$). In several cases, the differences in scores were statistically significant between one or both groups of students compared to the academic staff. Post hoc tests showed statistically significant differences between first-year students and the academic staff in their scores for Written Production ($p = .051$), Online Interaction ($p = .019$), Audio-visual Reception ($p = .029$), Reading Comprehension ($p < .001$) and Written Interaction ($p < .001$). Between second-year students and the academic staff, there were statistically significant differences in scores for Reading Comprehension ($p < .001$) and Written Interaction ($p = .004$).

The comparison of mean scores pointed to certain trends in the respondents' evaluations but was not sufficient for us to draw conclusions for course design. In the second part of our analysis, we turned to the ranking of the activities. For each group of respondents, we ranked

Table 5
Means and standard deviations for the evaluation of activities by first- and second-year students and the academic staff

Language Activity	Group	Number of Respondents	Mean	Standard Deviation
Listening Comprehension	1st-year students	171	3.39	0.581
	2nd-year students	152	3.41	0.584
	Academic staff	15	3.68	0.383
Reading Comprehension	1st-year students	171	3.20	0.627
	2nd-year students	152	3.23	0.597
	Academic staff	15	3.73	0.344
Audio-visual Reception	1st-year students	171	2.95	0.792
	2nd-year students	152	3.18	0.723
	Academic staff	15	3.53	0.743
Spoken Production	1st-year students	171	3.23	0.687
	2nd-year students	152	3.26	0.648
	Academic staff	15	3.30	0.607
Written Production	1st-year students	171	2.89	0.747
	2nd-year students	152	3.04	0.751
	Academic staff	15	3.37	0.667
Spoken Interaction	1st-year students	171	3.34	0.594
	2nd-year students	152	3.36	0.560
	Academic staff	15	3.51	0.512
Written Interaction	1st-year students	171	3.08	0.740
	2nd-year students	152	3.22	0.702
	Academic staff	15	3.70	0.455
Online Interaction	1st-year students	171	2.99	0.789
	2nd-year students	152	3.13	0.723
	Academic staff	15	3.53	0.640
Mediating a Text	1st-year students	171	3.03	0.674
	2nd-year students	152	3.13	0.628
	Academic staff	15	3.32	0.633
Mediating Concepts and Communication	1st-year students	171	3.14	0.666
	2nd-year students	152	3.22	0.570
	Academic staff	15	3.44	0.631

the activities based on the mean scores, as shown in Table 6. It enabled us to shift our focus, and examine and contrast language activities between groups in terms of their importance within each group rather than in terms of the differences in their mean scores.

Table 6
Language activities ranked according to the mean scores of first- and second-year students and the academic staff

1st year	2nd year	Academic staff
1. Listening Comprehension (3.39)	1. Listening Comprehension (3.41)	1. Reading Comprehension (3.73)
2. Spoken Interaction (3.34)	2. Spoken Interaction (3.36)	2. Written Interaction (3.70)
3. Spoken Production (3.23)	3. Spoken Production (3.26)	3. Listening Comprehension (3.68)
4. Reading Comprehension (3.20)	4. Reading Comprehension (3.23)	4/5. Online Interaction / Audio-visual Reception (3.53)
5. Mediating Concepts and Communication (3.14)	5/6. Mediating Concepts and Communication / Written Interaction (3.22)	4/5. Online Interaction / Audio-visual Reception (3.53)
6. Written Interaction (3.08)	5/6. Mediating Concepts and Communication / Written Interaction (3.22)	6. Spoken Interaction (3.51)
7. Mediating a Text (3.03)	7. Audio-visual Reception (3.18)	7. Mediating Concepts and Communication (3.44)
8. Online Interaction (2.99)	8/9. Online Interaction / Mediating a Text (3.13)	8. Written Production (3.37)
9. Audio-visual Reception (2.95)	8/9. Online Interaction / Mediating a Text (3.13)	9. Mediating a Text (3.32)
10. Written Production (2.89)	10. Written Production (3.04)	10. Spoken Production (3.30)

Most of the ten activities had the same ranking for both groups of students, although we should note that there were two cases for second-year students where two activities had the same mean value and occupied the same place in the ranking. Even in those cases where there were differences in the rankings, they were not dramatic – Mediating a Text was one place/two places apart in the ranking and Audio-Visual Reception was ranked two places higher or lower when we compared the two groups of students.

When we compared the rankings based on the student's scores and the ranking based on the scores of the academic staff, however, we observed considerable differences. There were no matches in the rankings between first-year students and the academic staff. There was only one activity, Mediating a Text, where there was a match in the ranking between second-year students and the academic staff. The differences in the rankings between the students and the academic staff ranged from one to as many as seven places, which was the case with Spoken Production. Online Interaction and Written Interaction were three/four places apart in the ranking. In fact, Listening Comprehension, Mediating a Text, Mediating Concepts and Communication and Written Production were the only activities which were one to two places apart in the rankings.

As noted, the rationale for introducing the rankings into our analysis was to look beyond the differences in mean scores as they alone could not account for the importance of language activities within each group. For example, the mean scores for Spoken Production are very

close in value between all three groups – 3.23 for first-year students, 3.26 for second-year students and 3.30 for the academic staff. However, although the score of the academic staff is higher than the scores assigned by both groups of students, this activity is ranked third according to student evaluations but last (tenth) according to the academic staff. On the other hand, Reading Comprehension, which had much larger differences in scores and a statistically significant difference between the scores of the academic staff compared to both groups of students, was placed much closer in the ranking (first and fourth most important activity for both groups of students and the academic staff, respectively). This kind of two-step analysis provided us with a more comprehensive account of the importance of language activities for course design.

5 Discussion

The findings obtained from the three groups of respondents about the importance of particular language activities for the future careers of students of security studies have important implications for English language course design at the Faculty of Security Studies. Due to the sheer number of language activities and especially their sub-activities, it is virtually impossible to include all of them in ESP courses taught at the Faculty or to dedicate the same amount of teaching time to all of them. It is therefore vital for us to have a smaller set of course objectives to ensure a more streamlined process of course design. However, our intuitions as teachers can only go so far in reducing these course objectives to the most important ones. As subject specialists, the Faculty's academic staff are uniquely qualified to assess the students' objective needs for their careers, making their evaluations crucial for course design in English for security studies. At the same time, despite the students' likely lack of ability to assess their own language needs, their subjective needs bear directly on their motivation to learn the language skills and competencies taught in English language courses at the Faculty. Therefore, they need to be taken into account to ensure that students are successful in acquiring the knowledge and skills they will need in their professional careers. In this section, we present a discussion of our findings and their implications, taking into account both our students' objective and their subjective needs.

The ten language activities we identified through PCA were evaluated by all three groups of respondents as important or very important (the mean values for all three groups ranged between 2.89 and 3.73). There was a consistent increase in the importance assigned to language activities by second-year students compared to first-year students. Their scores were, however, close in value and there was a statistically significant difference between their scores for only one activity, Audio-visual Reception. On the other hand, the academic staff evaluations were higher for all activities than the evaluations by both groups of students. We identified several cases where the difference between scores of one or both groups of students and those assigned to the activities by the academic staff were statistically significant. These results indicated that in some cases members of the academic staff showed an increased awareness of the importance of the English language for students' professional careers. This is not surprising as members of the academic staff are better informed about the language requirements students might face in professional situations and more aware that English has become a lingua franca and a requirement for professional advancement and success.

In order to get a more comprehensive account of the language activities, we ranked them based on the group's mean scores to identify the most important language activities for each group. This allowed us to consider the importance of activities for both groups of students, regardless of the fact that their scores were lower compared to the evaluations by the academic staff.

Together, these results helped us identify those language activities considered most important by all three groups of stakeholders and look for common ground between them, which would enable us to incorporate both students' objective but also their subjective needs into course design. Four activities stood out in that analysis. Two activities, Listening Comprehension and Reading Comprehension, were among the most important activities in all three groups. Listening Comprehension was the most important activity according to the students and the third most important activity according to the academic staff. Reading Comprehension had the highest score of all activities among the academic staff, while the students evaluated it as the fourth most important activity (despite significant differences in the scores). Next, we identified two activities which received one of the highest scores either among the students or the academic staff, but were regarded as only the fifth or sixth most important activity by the other stakeholders. These are Written Interaction (the second most important activity for the academic staff) and Spoken Interaction (the second most important activity to the students).

Since these language activities represent the nexus between our students' objective and subjective needs, they will form the core of our ESP courses. Those activities whose evaluations were characterised by more disagreement between the three groups of respondents in terms of their average scores and ranking will not be entirely excluded from the courses, but will also not take central place in them, thereby reducing our course objectives to more manageable and realistic numbers.

These findings will have an impact on ESP course design at our Faculty. They will guide the materials selection process to ensure that the different types of texts and audio-visual materials we choose focus on the activities we identified as the basis for course design. We will also employ adequate teaching techniques and classroom activities to enable our students to improve on and excel in the most relevant language skills. Depending on how important they are considered to be by the stakeholders, the language activities will be proportionally included in our courses with the aim of enabling our students to acquire the skills they need to operate successfully in their future professional communities. Since course design is a complex and cyclical process, however, all of the decisions will be periodically revisited and reconsidered to ensure that they reflect our students' present needs and current circumstances.

6 Conclusion

The English language courses at the Faculty or Security Studies of the University of Belgrade aim at providing students with the essential knowledge and skills in the target language that would enable them to operate effectively in their professional careers and occupational community. In order to achieve this, we conducted a needs analysis by administering parallel questionnaires to three groups of stakeholders – first- and second-year students and members

of the Faculty's academic staff – who offered their views of security students' needs. We collected and triangulated the data so as to gain insight into the students' objective as well as their subjective needs and establish a foundation for course design. The respondents were asked to evaluate the importance of language sub-activities as parts of the communicative language activities described in the CEFR Companion. We were able to compare and contrast the obtained results. Although all three groups of respondents evaluated most of the activities as important or very important, Listening Comprehension, Reading Comprehension, Written Interaction and Spoken Interaction were identified as the key language activities that will feature prominently in our courses, while other activities will be included to a lesser extent. These results will inform the complex process of course design at the Faculty, including defining course objectives, materials selection, language activities and skills.

The number of the respondents from the academic staff may be considered a limitation to the study, but it was influenced by the fact that the Faculty of Security Studies is the only one of a kind at the University of Belgrade, thus limiting the population of this group of stakeholders. Other possible stakeholders, e.g., former students and professionals in the field of security studies were not included in the study due to time and resource constraints during the academic year 2019–2020, when it was conducted. Their evaluations would certainly have influenced and shaped the results obtained.

Our study would have benefited from a mixed-methods approach as well. For example, additional qualitative data from post-questionnaire interviews with the academic staff could have helped more accurately identify and elaborate on the requirements of the target situations. As needs analysis is an ongoing process, this could be one of the directions for future research on course design in security studies. Gathering and comparing data from other groups of stakeholders, e.g., former students and security professionals could also add to the conclusions reached in this study.

References

Alfehaid, A. F. T. (2011). *Developing an ESP Curriculum for Students of Health Sciences through Needs Analysis and Course Evaluation in Saudi Arabia.* [Unpublished doctoral dissertation]. Leicester: School of Education, University of Leicester.

Belcher, D. (2004). Trends in teaching English for specific purposes. *Annual Review of Applied Linguistics 24*(1), 165–186.

Belcher D. (2006). English for specific purposes: Teaching to perceived needs and imagined futures in worlds of work, study, and everyday life. *TESOL Quarterly 40*(1), 133–156.

Bhatia, V. K. (1993). *Analysing Genre – Language Use in Professional Settings*. Harlow: Longman.

Brown, J. D. (1995). *The Elements of Language Curriculum: A Systematic Approach to Program Development*. Boston: Heinle & Heinle Publishers.

Brown, J. D. (2011). Likert items and scales of measurement. *Shiken: JALT Testing & Evaluation SIG Newsletter 15*(1), 10–14.

Brown, J. D. (2016). *Introducing Needs Analysis and English for Specific Purposes*. London: Routledge.

Caplan, N. A., & Stevens, S. G. (2017). "Step out of the cycle": Needs, challenges and success of international undergraduates at a U.S. University. *English for Specific Purposes 46*, 15–28.

Chambers, F. (1980). A re-evaluation of needs analysis in ESP. *The ESP Journal 1*(1), 25–33.

Chovancová, B. (2014). Needs analysis and ESP course design: Self-perception of language needs among pre-service students. *Studies in Logic, Grammar and Rhetoric 38*(51), 43–57.

Council of Europe. (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment.* Cambridge: Cambridge University Press.

Council of Europe. (2018). *Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Companion Volume with New Descriptors*. Strasbourg: Council of Europe.

Dörnyei, Z. (2010). *Questionnaires in Second Language Research: Construction, Administration, and Processing* (2nd ed.). London: Routledge.

Dudley-Evans, T., & St. John, M. J. (1998). *Developments in English for specific purposes: A Multi-disciplinary Approach.* Cambridge: Cambridge University Press.

Fields, A. (2013). *Discovering Statistics Using IBM SPSS Statistics.* Thousand Oaks: Sage.

Flowerdew, L. (2013). Needs analysis and curriculum development in ESP. In B. Paltridge & S. Starfield (Eds.), *The Handbook of English for Specific Purposes* (pp. 325–346). Hoboken: Wiley Blackwell.

George, D., & Mallery, P. (2019). *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference* (6th ed.). London: Routledge.

Graves, K. (1996a). A framework of course development processes. In K. Graves (Ed.), *Teachers as Course Developers* (pp. 12 –38). Cambridge: Cambridge University Press.

Hutchinson, T., & Waters, A. (1987). *English for Specific Purposes: A Learning-centered Approach*. Cambridge: Cambridge University Press.

Hyland, K. (2006). *English for Academic Purposes*: *An Advanced Resource Book.* London: Routledge.

Joiliffe, I. T. *Principal Component Analysis* (2nd ed.). New York: Springer.

Najdanović Tomić, J. (Ed.). (2015). *Opšti standardi postignuća za kraj opšteg srednjeg i srednjeg stručnog obrazovanja i vaspitanja u delu opšteobrazovnih predmeta za predmet Strani jezik: Priručnik za nastavnike.* Belgrade: Zavod za vrednovanje kvaliteta obrazovanja i vaspitanja.

Pravilnik o planu i programu nastave i učenja za gimnaziju. (2020, June). *Službeni glasnik Republike Srbije – Prosvetni glasnik 4/2020.*

Ravid, R. (2020). *Practical Statistics for Educators* (6th ed.). Lanham: Rowman & Littlefield.

Serafini, E. J., Lake, J. B., & Long, M. H. (2015). Needs analysis for specialized learner populations: Essential methodological improvements. *English for Specific Purposes 40*, 11–26.

Swales, J. M. (1990). *Genre Analysis: English in Academic and Research Settings*. Cambridge: Cambridge University Press.

Taillefer, G. F. (2007). The professional language needs of Economics graduates: Assessment and perspectives in the French context. *English for Specific Purposes 26*(2), 135–155.

Tenjović, L. (2000). *Statistika u psihologiji: Priručnik*. Belgrade: Centar za primenjenu psihologiju Društva psihologa Srbije.

West, R. (1994). Needs analysis in language teaching. *Language Teaching 27*(1), 1–19.

Williams, P. D. (2008). Security studies: An introduction. In P. D. Williams (Ed.), *Security Studies: An Introduction* (pp. 1–12). London: Routledge.

Woodrow, L. (2018). *Introducing Course Design in English for Specific Purposes.* London: Routledge.

Wozniak, S. (2010). Language needs analysis from a perspective of international professional mobility: The case of French mountain guides. *English for Specific Purposes 29*(4), 243–252.