

Methodological and Technological Aspects of ESP Classes in the Online Academic Environment: Challenges, Transformations, Implications

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Abstract

The present study focuses on challenges and transformations in the contemporary educational process, suggests methodological solutions, and provides frameworks for teaching ESP courses in an online academic environment. The purpose of the paper is to analyze specific features of an effective ESP course, to present a new English for Business Purposes (EBP) course within the framework of the ESP course, to introduce strategies for online teaching with the help of digital tools and online resources, and to demonstrate the developed TALAS web application that encourages students' motivation and provides challenging activities. Needs analysis procedures were used to identify and analyze the students' language requirements in occupational and academic settings and to locate the dimensions for developing the new course content and design. The findings of the present study may enhance the educational process, help advance students' language knowledge, and improve skills related to their future occupations. In a broader scope, it is expected that the developed course and web application with interactive assignments, as well as new methodological solutions, may contribute to a more efficient educational process. In conclusion, the paper summarizes the discussion of the potential for transformations and innovations in the educational area.

Keywords: EBP Course; Educational Transformation; ESP Methodology; Needs Analysis; Online Learning; Web Application

1. Introduction

1.1. Objectives

Higher education is a sphere of human activity that requires continuous promotion and enhancement of modernization processes to support the development of educational and intellectual potential, as well as to carry out social and economic reforms. However, at different times, various events have affected these processes in different ways. The situations with the COVID-19 pandemic spreading throughout the world and the war in Ukraine have forced higher education to face new challenges that suddenly caused the sphere to engage in extensive transformation to meet the needs of students in an innovative way of learning different academic subjects, including English for Specific Purposes (ESP). Education has shifted away from university premises to virtual classrooms supported by online resources. This shift has changed the methods of teaching ESP, boosted the search for new strategies for organizing the learning process, and even resulted in alterations to course content. Moreover, the shift constantly promotes the improvement of the pedagogical framework of ESP courses, including additional input resources and various types of interactive activities, particularly video/audio resources, online tests, and assignments.

On the one hand, while analyzing the methodological transformations in the contemporary educational process,

we argue that information technologies should become a significant area of students' concern in learning English. On the other hand, we understand that they allow teachers to shape education in the context of organizing classes to equip students with important skills and competencies to acquire knowledge in a new way. Additionally, information technologies challenge students' motivation and arouse their interest in learning English based on Internet resources. In light of the ideas mentioned above, it is of great significance to focus on educational transformations and challenges for creating new environments to teach language efficiently in online classrooms. Our contention is that the methodology applied for teaching English is closely connected with the type of learning environment, which is an important factor in organizing ESP classes.

The *purpose* of the paper is to analyze educational transformations and challenges based on the study of three main aspects: the place and specific features of the ESP course within the framework of the English as a Foreign Language (EFL) course; the implementation of a new ESP course created at Ivan Franko National University of Lviv to enhance the teaching of ESP in new circumstances; and the introduction of online strategies and the discussion of the ways of teaching ESP today in comparison with the pre-pandemic period. It is worth mentioning that to create an ESP course, it is important to conduct a systematic analysis and rigorous evaluation of students' needs to be implemented in curriculum development and classroom instruction. Therefore, a significant task of this research is to undertake such a needs analysis. Additionally, the purpose of the paper challenges the tasks of studying the tools and resources for online ESP learning and teaching, suggesting the discussion of the TALAS (Teaching and Learning Academic Subjects) web application (Ivashchyshyn & Dovbenko, 2021) as well as analyzing the benefits, advantages, risks, disadvantages, and difficulties of online learning in contemporary education.

The purpose and tasks of the paper have encouraged us to design the structure of the paper and choose the methodology and approaches that will facilitate understanding of the research solutions. Accordingly, the structure is based on the analysis of previous investigations in the areas of ESP and online learning, as well as the discussion of innovations and suggestions for the use of new resources that hopefully could add originality and increase the value of the paper. Additionally, the structure contains a detailed study of the positive and negative features of online ESP teaching, as well as the analysis of findings and results of the discussion. Moreover, a description of a new ESP course, purposefully designed to meet the current needs of students and fill the gap in the educational process, is suggested.

The methodological part of the study contains a description of the methods and strategies used during the ESP study, the materials and techniques applied for creating a new course and web application that should provide a clear idea of the objectivity of the results, and a short information section that may be helpful for other researchers who wish to replicate the study. In this part, we also try to show the reader that the empirical data are reliable, comprehensive, and logical, and that the research methodology is appropriate and effective.

1.2. Background

The study of online teaching is one of the most important areas of research in the field of contemporary education. The methods and strategies of teaching ESP that are also in focus in teaching EFL have been studied using many methodologies in the course of developing new approaches to teaching academic subjects in higher education. Investigations in this area, which help in understanding how to achieve positive results in developing students' communicative skills in specific disciplines, have considerably widened their scope in the past few years due to the increasing role of English as a language of international communication in various spheres of life.

This research is based on the approaches supported by methodologists and linguists such as Kitkauskienė (2006), Marwan (2009), and Netikšienė (2006), who studied the challenges of teaching ESP within the framework of English language learning and pointed out that ESP has made English teaching more purposeful. According to Kassim and Ali (2010), ESP classes should focus on developing students' communicative skills relating to their future professions. We share the ideas expressed by Cowling (2007), Poedjiastutie and Oliver (2017), and Spence and Liu (2013) that it is important to use needs analysis in ESP teaching and in planning a syllabus for ESP. From the point of view of Long (1996), Early (1981), and Ghafournia and Sabet (2014), it is essential to investigate the linguistic environment in language acquisition and the role of an ESP teacher in creating a learning environment. Thus, these researchers focus on various aspects of teaching ESP.

In the context of the online academic environment, Semenets-Orlova et al. (2019a) state that effective information exchange is crucial for fostering collaboration, which simultaneously increases the learning

experience in English for Specific Purposes (ESP) classes. The readiness of education managers to facilitate organizational development within institutions plays a pivotal role in navigating the challenges posed by digital transformation, ensuring that both faculty and students are equipped to adapt to new methodologies (Semenets-Orlova et al., 2019b). Furthermore, according to Stryhul et al. (2019), the development and dynamics of economism, alongside the commercialization of Ukrainian higher education, necessitate a strategic approach to curriculum design and delivery, emphasizing the need for innovative pedagogical practices that align with market demands while maintaining educational integrity.

Supporting the ideas developed in their works, we also consider it important to draw attention to the research conducted by Edwards (2000), who analyzed effective needs assessment, syllabus design, and materials preparation in a practical ESP study. In addition, considering the contemporary necessity to teach ESP in an online environment, we would like to emphasize the role of innovative technologies in organizing ESP virtual classes. Literature in the area of computer-assisted language learning has pointed to the importance of incorporating a variety of tools for teaching purposes (Gonzalez-Lloret, 2003; Dudeney & Hockly, 2007) and the advantage of interactive electronic media in intensifying learners' perceptions, cognitions, and experiences (Chun & Plass, 2000; Felix, 2002; Benson & Voller, 1996). From the point of view of Harris (2001), an emphasis on the use of innovative methodology leads to the conclusion that technologies applied to teaching constitute an excellent means of learning and teaching. Moreover, Gonzalez-Lloret (2003) points out that suitably designed computer-assisted tasks enable greater individualization and make it possible to cater more fully to learners' individual needs and learning styles.

We share the ideas mentioned above and believe that teaching ESP should be analyzed within the framework of teaching EFL. Additionally, we realize that in contemporary education, the methods and ways of teaching ESP have greatly changed under the influence of the shift to online teaching and learning. Therefore, we are convinced that these changes should be studied in detail to understand their positive and negative features. For this purpose, it is important to analyze their advantages and disadvantages for the further development of ESP methodology and strategies, which have always been the focus of English teachers and linguists.

This research considers the results of both theoretical investigations and their practical implementation, as well as suggests a new methodology for the integration of innovative resources in teaching ESP to achieve the goal of developing students' skills in ESP classes based on online platforms, management systems, and web applications as effective additional resources with interactive tests and writing assignments.

Among many challenging questions of ongoing research, the following important questions remain open: What are the benefits and advantages of online learning, on the one hand, and what are the risks and disadvantages, on the other? In this research, we make an attempt to answer these questions.

2. Material and Methods

2.1. Participants and Instruments

The research is based on the general analysis of ESP classes at Ivan Franko National University of Lviv, Ukraine. We have studied the strategies and methods used by ESP teachers to conduct classes for Philology students and students of International Economic Relations, taking into consideration the field of study, the current situation, aims of courses, students' needs, and market demands. Accordingly, the methods of fieldwork survey, as well as socio-pragmatic and needs analysis, have been applied to study specific features of the language environment in these contexts. Based on this study, we conducted an analysis of the ESP program and suggested the EBP course created for students majoring in International Economic Relations, investigated Internet tools for online teaching, and discussed the TALAS web application, which has been implemented in teaching ESP to Philology students.

In collecting the data for this study, both practical and theoretical-methodological instruments were used in the course of analyzing the current situation in teaching ESP. The instruments were based on investigations in the field of teaching ESP, the study of methodological techniques, requirements for online teaching, as well as achievements and failures in the teaching process. It is worth emphasizing that the analysis of teaching ESP, its transformations, and implications in the contemporary situation are challenging in terms of both methods and approaches.

On the one hand, we employ the methodology of a case study based on a vast scope of linguistic and methodological literature, which introduces theoretical approaches focusing on the specific features of the ESP

course. On the other hand, these approaches help differentiate between various types of ESP courses presented in the Discussion part below. Both methodology and approaches provide the grounds for substantiating the role of teaching ESP in contemporary education and analyzing its strategies in the online academic environment.

2.2. Procedure

An important element of the procedure in this research is a needs analysis survey, as it helps to meet the demands of students in current educational and social contexts. In EFL teaching, a needs analysis is the basis of training and aid-development programs. In ESP, the situation is similar. A needs analysis is conducted prior to every program that is to be developed. As an ESP course is always designed for specific learners to meet their professional and academic demands, a needs analysis should be pivotal in forming the basis for the ESP program. While conducting a needs analysis, we took into consideration all its components: Target Situation Analysis, Learning Situation Analysis, Present Situation Analysis, and Means Analysis. As defined by Rahman (2015), Target Situation Analysis refers to the form of a needs analysis that focuses on identifying the students' language requirements in the occupational or academic setting. Having analyzed the language requirements of 180 students based on tests and questionnaires, we received valuable directions for course content.

The next crucial step of the analysis, which makes it effective for ESP courses, is the creation of a Communicative Needs Processor comprising a set of linguistic parameters. It helps to define the whole scope of target skills and enables teachers to develop a range of activities to practice students' skills. The methodology built on the Target Situation Analysis and Communicative Needs Processor tackles a two-fold aim: language acquisition and subject matter learning. In our research, this intricate combination of the expected skills as the target of the course called for the implementation of a synthesis of materials and activities, which resulted in a three-staged thoroughly designed methodology for the EBP course discussed in detail below.

We have also made use of a needs analysis survey to accomplish the essential aim that has much to do with finding out the students' expectations in order to create the EBP course. It is important to emphasize that the methodology of EBP is based on the idea of integrated learning at its core. The multidisciplinary principle has been designed to aim at the comprehensive development of communicative, cognitive, informational, socio-cultural, professional, and general competence of the students. Thus, EBP equally focuses on the development of both linguistic and professional skills. Taking the idea of multidisciplinary as the basis for EBP methodology development, we explored the needs of the target learners (upper-intermediate and advanced students intending to work in the sphere of International Economic Relations after graduation). This enabled us to combine English language learning and subject-field learning. The methodology proved to be effective and suggested a wide scope of learning opportunities. As a result of EBP course design and implementation, a textbook titled "English for Successful Business Communication" (Kashchyshyn, 2020) was published and proved to be effective in the current social context. It covers the most problematic topics and focuses primarily on the development of communicative skills in the field of International Business.

To outline the strategies for effective teaching of ESP courses in the academic environment influenced by war, we studied the process of online teaching to 120 students majoring in Philology and investigated and systematized the collected data on the usage of Internet resources for ESP learning. Outlining the concept, we analyzed online platforms, electronic management systems, and the TALAS web application that help teachers create a virtual classroom, organize the educational process, and develop students' ESP competence. To suggest opportunities for the implementation of theoretical results, we applied a pragmatic approach to elaborating interactive tests and assignments based on the TALAS web application to practice the usage of ESP knowledge.

3. Results

In terms of curriculum development at Ivan Franko National University of Lviv, as an educational institution with nineteen faculties and three colleges, ESP is an important academic subject for students due to the significant role of English as the language of international communication in both educational and economic development in the contemporary globalized world. To analyze the transformations and challenges for teaching ESP in the contemporary educational environment, it was important to specify its place within the framework of teaching EFL, study its characteristic features, and discuss the peculiarities of the ESP academic program.

ESP occupies a particular place in teaching EFL due to its specific character, which is oriented toward developing students' communicative skills related to their majors. It has been an innovative and distinct field since its inception in the 1960s (Rahman, 2015). We support the idea that any ESP course runs concurrently with disciplinary studies and that its linguistic content is determined by the topic of the lesson. According to

Rahman (2015), ESP is concerned with the specific English language needs of the target learners and focuses on language in context based on a learner-centered approach to teaching English. Hutchinson and Waters (1987) define ESP as an approach rather than a product. ESP is aimed at developing communicative skills in a specific discipline involving knowledge of terminology. In ESP classes, students are also exposed to academic culture and real-world communication practice.

As in every discipline, success in learning ESP primarily depends on effectively planned academic programs. Dooley (2010), who studies students' perspectives of English pathway programs, emphasizes that participants benefit from an academic program as it provides them with a good transition to study despite several obstacles that still must be overcome. It is worth emphasizing that the ESP program differs from the general English language program. The analysis of the ESP program has contributed to determining the following characteristics: it is designed to meet the specific needs of students; it is related in content to particular disciplines or occupations; it uses authentic work-specific documents and materials; it promotes cultural awareness and seeks to improve intercultural competency; and it delivers intermediate and advanced level language training.

The ESP program offers classes that focus on developing the language skills needed for success in students' future occupations. Traditionally, an ESP course is composed of two streams: the EAP course and the EOP course. We agree with Bojovic (2006) that EAP and EOP can be divided into several types according to discipline or professional area. An EAP course can help students develop their academic communicative skills. Moreover, successful completion of an Academic Writing course also meets the requirements of an ESP program. The EOP course challenges the development of job-specific English language communicative skills for those who seek to enter or advance in their professions.

The types of ESP courses depend on the area of study, but at the same time, all of them support the development of communicative skills, grammar and vocabulary knowledge, listening comprehension, reading, and writing abilities. Vesela (2012) emphasizes the necessity of developing all integrated skills in teaching ESP. In fact, the outline of common concepts of teaching ESP courses includes organizing and stylizing knowledge, improving pronunciation for spoken language, developing reading comprehension, practicing grammar and vocabulary competence, developing writing skills, acquiring research tools, and practicing analytical interpretation.

The study of the characteristic features of the ESP program course and the understanding of the necessity to develop integrated skills have challenged the introduction of methodological changes reflected in designing and planning the contents of new ESP courses. According to Gao (2007) and Ghenghesh (2013), to be successful in teaching, it is of great importance to design and plan all details that can be helpful in an ESP course. This idea has been supported by ESP teachers at Ivan Franko National University of Lviv. Consequently, students pursuing a degree in Philology, in addition to a regular ESP program based on the principles discussed above, are engaged in reading original literature of various genres, including poetry, dramas, and novels, as well as taking specialized writing classes. Those majoring in International Relations study diplomatic and business documents of various types: agreements, international contracts, agendas, memos, etc. Such additional educational material helps students enrich their knowledge and expand their horizons in the fields related to their majors.

To develop a successful ESP course, we have analyzed classroom activities viewed from different perspectives in more detail. In ESP classes, the list of activities integrates very specific and generally used strategies. For instance, in learning how to write correctly on topics related to their majors, students develop their writing and researching abilities that will help them succeed in both their higher education and future careers. Fulfilling writing assignments challenges students to work on improving writing style, organization, and mechanics that are acceptable at the university level. Additionally, students learn how to edit their papers based on peer review checklists. Grammar is offered for students with B1, B2, and C1 levels of English in different ways. B1 students practice writing sentences and phrases correctly, paying attention to verb agreement, conjugation, sentence structure, and the use of tenses. The activities designed for B2 students increase their essay writing skills to further idea development and coherence, helping them practice the complicated use of tenses, modals, and conditional sentences. C1 students develop their skills in writing CVs, summaries, reviews, and research papers, practicing the use of Complex Participle, Infinitive and Gerund, complex and compound sentences, and punctuation.

While developing speaking skills, students learn how to speak English properly. Topics of study include

phrasing, intonation, rhythm, and stress natural for a native speaker. By taking this part of an ESP course, students learn to speak English more articulately and gain self-confidence in speaking. They use the opportunity to talk with their classmates and teachers, discussing ways to decrease misunderstandings that come from mispronunciation and word misuse. Moreover, students practice speaking abilities in the process of developing ideas on subject-field topics.

Activities for developing reading comprehension and improving vocabulary knowledge increase students' reading abilities and broaden their vocabulary. Students learn to speed-read materials for information that will be useful for ESP competence and research purposes. In this part of an ESP course, students develop analytical discussion skills. Often, students are required to read a specified number of pages in their area, make PowerPoint presentations, and discuss them in classes. This part of an ESP course develops students' rhetorical skills, enabling them to create and support an argument based on facts.

The results of the analysis of the ESP program, classroom activities, and methodological changes in planning the contents of the ESP course have contributed to the creation of the EBP course, which we suggest for further discussion.

4. Discussion

Based on the results of the analysis presented above, we suggest a discussion of a new EBP course as one of the types of ESP courses and innovative strategies for online ESP teaching that contribute to transformations in the contemporary academic environment. The first aspect of the discussion is highly important due to the integrational processes that are crucial and challenging for both education and the economy. The second aspect is an inevitable part of the current situation in the contemporary academic environment, with a shift to online education greatly influencing the process of ESP teaching.

In suggesting the EBP course, we highly rely on the fact that Business English is an integral part of ESP courses, possessing special value in modern international social and business spheres. Business English is largely used in international trade by many whose primary spoken or written language is English. In a globally connected world, Business English is becoming increasingly important as more and more companies need their staff to be multilingual in the use of languages. The goal of any EBP course is to teach its users to effectively communicate with others in a business environment, whether that communication is in correspondence, face-to-face meetings, or other methods (Fitria, 2019).

The EBP course is a professionally oriented course designed not only to meet the requirements of university curriculum development but also to satisfy the needs of Ukrainian society trying to join the European business community. It is based on an integrated multidisciplinary principle and focuses on the comprehensive development of communicative, cognitive, informational, socio-cultural, professional, and general competence of students. Taking into account the specificities of Lviv University's educational policies, which are largely aimed at European integration, market demands, and the character of the student body, our pivotal target is to discuss the methodology of the EBP course, which makes it possible to achieve the following long-term and short-term objectives:

- Develop students' language competence and performance necessary to communicate in a professional environment;
- Raise students' awareness in their professional sphere;
- Develop students' ability to understand and analyze phenomena, processes, and events that are key in modern international relations and European integration processes;
- Boost interdisciplinary ties and enhance multidisciplinary education;
- Expand the exchange of expertise between specialists in linguistics and other subjects;
- Network and exchange experience with colleagues both in Ukraine and abroad;
- Integrate with other members of civil society apart from university students and suggest language training that would enable them to participate in European business processes more actively;
- Encourage integration processes in the sphere of international business.

Based on a generally accepted understanding of the methodology of teaching as a carefully designed set of activities and techniques aimed at satisfying the needs of a special learning group to provide knowledge in a certain sphere, we suggested reassessing and widening it in the sense that a modern effective ESP course equally pays attention to the development of both linguistic and professional skills. Taking this idea as the basis for EBP methodology development, as well as understanding the needs of the target learners (upper-intermediate and

advanced students intending to work in the sphere of International Business and International Economic Relations), we applied a combination of English language learning and subject matter learning. We also implemented a synthesis of traditional pedagogical methods and some innovative techniques to activate in-classroom and out-of-classroom learning that incorporates academic, linguistic, and vocational areas of activity. The methodology can be presented in three successive stages (Figure 1).

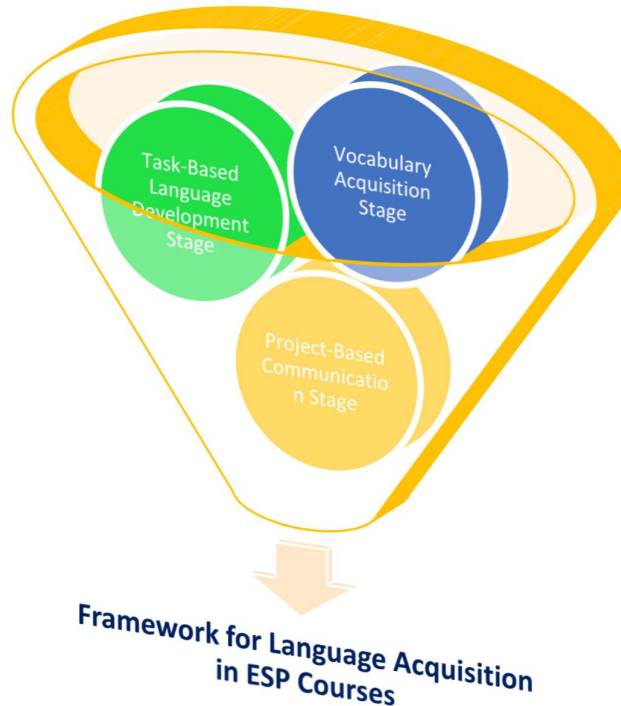


Figure 1. *Stages of ESP Course Methodology*

- i. The vocabulary-oriented stage focuses heavily on acquiring the vocabulary necessary to conduct specific tasks. Due to this, vocabulary activities based on authentic material are designed to enable students to communicate in their professional sphere.
- ii. The task-based stage is meant to use the language competence gained in the first stage and delve deeper into more detailed matters. Being more specific, it makes use of a communicatively oriented set of activities, the most important of which are case studies, role plays, simulation tasks, etc.
- iii. The project-based stage is largely meant to satisfy real needs by adapting language to the skills students require professionally. We suggest the use of project work to encourage communication in English between students outside the classroom, which is both “in- and out-of-class” learning. Followed by oral presentations, this technique is viewed as a sufficient sequence of activities that train students to develop their linguistic autonomy and assist in mastering all language skills (listening, reading, speaking, writing) at an appropriate level.

To enhance the teaching process and make it more innovative and effective, we propose a thoughtful methodological strategy that emphasizes the use of engaging tasks, such as role-playing and simulations. This approach aims to balance training methods (language) and the desired outcomes (knowledge of specific subjects). Immersing students in real-world scenarios from a professional perspective encourages them to apply language skills in practical contexts.

Case studies are among the most effective activities for developing EBP courses. They leverage students' professional abilities, encourage learning beyond the classroom, and promote English as the natural language of their professional communication. Moreover, we suggest incorporating business simulation games, thematic dialogues, and oral discussions to facilitate meaningful interactions and constructive discussions. Our proposed multitasking approach and the "full immersion" technique are designed to build upon learners' existing knowledge, ensuring that all language skills are developed to a high standard.

The offered methodology is tailored to provide students with both language and professional skills necessary to communicate in the sphere of International Economic Relations. The combination of theoretical and practical activities, as well as a synergistic form of course organization, allowing for the segmentation of the language acquisition process into separate language elements presented at different stages, seems very likely to create an effective and timely ESP course. Thus, the professionally oriented EBP course is an effective, up-to-date language training integrating multidisciplinary skills while reflecting on International Business issues. The methodology applied for teaching the course provides the opportunity to enhance linguistic competence in the sphere of International Economic Relations as well as to improve knowledge in subjects closely related to International Business studies.

In contemporary education, with a shift to online education, the strategies for teaching ESP have engaged not only in extensive methodological but also technological transformations. Nowadays, when highly developed Internet technologies provide opportunities to study synchronously in virtual classrooms, teaching ESP integrates innovative offline and online methodologies, creating an online learning environment based on educational platforms, electronic management systems, and web applications. Online learning is a type of learning environment specifically conducted by the teacher and delivered via the Internet to students in a virtual online classroom where students can interactively communicate with the teacher and other students based on the use of educational resources to improve their academic performance.

According to Dashtestani (2014), the implementation of online EFL instruction has gained increasing popularity in language teaching and learning contexts. The benefits of online instruction include the opportunity for ubiquitous learning, convenience, cost-effectiveness, provision of educational opportunities for learners and instructors, accessibility, and improvement of students' higher-order thinking.

There are several platforms for conducting online instruction, among them Zoom, Microsoft Teams, Google Meet, Cisco Webex, and BlueJeans. Such online educational platforms as Microsoft Teams, Zoom, and Google Meet are the most popular for teaching ESP at Ivan Franko National University of Lviv. Each of them is characterized by specific features, but at the same time, all of them have transformed education by allowing teachers to work remotely and organize classes, meetings, conferences, etc. They are tools to handle quick audio or full-fledged video events and work on all devices from any location. The video capabilities help teachers feel closer to the students. They also facilitate communication and collaboration from remote locations without the need to travel. These platforms create a very efficient way of delivering courses and lectures online, as well as providing a convenient opportunity to watch recorded lessons and be independent in learning. Moreover, they allow students to develop their communicative skills and improve ESP terminology knowledge in a real-time situation, fulfill interactive grammar, vocabulary, and writing assignments, and share presentations. Teachers can organize discussions, conduct online testing, and grade students' participation in classroom activities.

In addition to online platforms, a significant role in teaching ESP is played by electronic management systems such as Moodle, Canvas, Chamilo, Claroline, Tutor, Dokeos, and Fedena. Among them, Moodle is the most trusted system used by millions of users worldwide to support their education and training needs. This modern educational management system supports a deep focus on teaching and learning and is effectively applied for creating ESP courses at the university. The robust features of Moodle help enhance teaching and learning beyond the physical classroom. It is developed on pedagogical principles and provides the tools for teaching and learning online ESP courses, elaborating interactive assignments and tests to develop students' skills.

In an online classroom, the challenge for the teacher is to construct a robust framework in which the student is both supported and guided toward a flexible model of autonomous learning using innovative technologies as both a medium and a resource. The pedagogical role of the materials is to reinforce what is done in the classroom and guide the independent investigation and creative application of the target language. This integrated learning model is constructed around a set of pathways. In interacting with the materials via learning pathways, the student moves through different stages of the learning process. While the improvement of language competence is the principal goal, the student is also engaged in a process of learning how to move to independent and purposeful exploitation of resources: in brief, learning how to learn.

The benefits of online learning allow for the usage of various Internet resources. One of them is the TALAS web application, which has been implemented in teaching the ESP course in addition to online platforms and electronic management systems. TALAS provides excellent online strategies that help in teaching ESP. This web application is a multifunctional learning environment that challenges the advancement of students'

language skills, makes this process manageable, and brings innovative perspectives for teaching English. TALAS is easy to operate and is based on the work of two types of users: a teacher and a student. This web application is for both group and individual activities. It supports monitoring progress results with the help of the evaluation system and creates a new learning space in which users are autonomous.

Language skills are developed with the help of matching, filling gaps, question, and essay writing exercises. TALAS provides the teacher with the tools for creating a large pool of exercises for practicing vocabulary, including terminology, and grammar, and enables students to complete these exercises. The teacher can create assignments for the students, view the results, and divide the students into groups. It is up to the teacher to decide whether the student has free access to all assignments or is enrolled in the group using a particular password during the registration procedure to start the learning process.

Additionally, TALAS supports the development of writing skills and embeds YouTube videos and audio resources. The web application is also equipped with an evaluation system for students' work that can be accessed by the teacher and the students of a specific group. Students can observe their own results, see the mistakes, and correct answers in the sentences where they made errors. The number of teachers, students, student groups, assignments, and texts is unlimited, and the application is an open Internet resource. The application can be used through any web browser, e.g., Chrome, Edge, Firefox, Safari, Opera, etc. Our observations during the course of work with TALAS show that students' enthusiasm for language learning and their willingness to work have greatly increased. Moreover, progress assessment confirms the long-term effect and more successful results of students' language acquisition.

While analyzing the ESP course and the ways of its online teaching, it is important to learn in detail its positive and negative features to understand what can be done to provide an effective educational process. On the one hand, we have observed and analyzed some risks, disadvantages, and difficulties that exist in online ESP learning to decide whether they can be overcome and what changes and transformations in the methodology of creating a safe and effective learning process should be undertaken.

The data selected for the analysis allowed us to subdivide the risks, advantages, and disadvantages into three groups. The first group describes the general risks and disadvantages. Among them, we differentiate the security of online learning resources, the unreliability of the Internet connection, the authenticity of a particular student's work, and the tendency of computer-marked assessments to be only knowledge-based.

In the second group, we discuss the risks, disadvantages, and difficulties that may create problems for teachers. They include the absence of vital personal interactions, not only with students but also with other teachers, which might result in a lack of feedback and a lack of professional communication that is so important for teaching ESP; less effectiveness of online methods in comparison with traditional methods of teaching ESP, considering the significance of detailed clarifications, explanations, and interpretations for the ESP course; more difficulties in teaching without face-to-face encounters with students; limitations or sometimes distortions in the use of extralinguistic means (gestures, mimics, eye contact, etc.) that are important for teachers to influence and persuade students during the teaching process; fewer opportunities for control and regulation of learning processes; absence of students' physical attendance that a lecturer may rely on when taking assessments, tests, exams, and training; and more effort required from the teacher to achieve the teaching goals.

The third group includes the risks, disadvantages, and difficulties that students may face: a strong tendency toward plagiarism, as well as the ease of copy and paste; less interaction, which is beneficial for acquiring knowledge, among students; less effective results of online oral exercises and learning activities; the effects of contemplation and remoteness as problems that require very strong inspiration and time management skills to be solved; and the opportunity to be interfered with by outsourcing, third-party help, and guided assistance. Additionally, it is worth mentioning that the lack of face-to-face communication with the teacher inhibits student feedback, causes social isolation, and could lead students to feel a lack of the teacher's persistence, which is disadvantageous in that it causes students to abandon their studies more easily. Online learning presupposes a lack of student communities, which often encourage students to speak in a friendly way and easily break psychological barriers.

On the other hand, the analysis of the advantages and benefits of online ESP learning based on educational platforms, electronic management systems, and web applications as tools for creating virtual classrooms has contributed to the awareness that online learning is a revolution in contemporary education. It introduces a huge change in the education system, helps prepare professionals in every sphere, and opens great opportunities for

everyone who is learning ESP. Online learning challenges the development of communicative skills, improves ESP terminology knowledge, fulfills interactive assignments, shares presentations and videos in real-time situations, and allows students to participate in interactive activities, experience interactive behavior, and be independent in learning. Teachers are provided with the tools for efficiently delivering online courses, grading students' participation, organizing discussions, giving assignments, linking various resources, and watching recorded lessons. Learning in virtual classrooms benefits from improving remote collaboration, managing time effectively, developing technical skills, increasing students' motivation, and bringing global perspectives.

It is important to understand that the contemporary academic environment is the reality that exists and will exist for some time to come. In turn, education requires new solutions to provide teaching in the best possible and most appropriate way based on effective strategies and with the least painful implications. Without a doubt, the further development of Internet technologies will play a significant role in contributing new opportunities to the improvement of online education. We believe that this improvement will result in implementing effective solutions in education, in general, and ESP teaching, in particular, which will challenge avoiding the risks, overcoming disadvantages and difficulties, and will be described in further research without the words "less," "lack of," "difficult face-to-face communication," "tendency to plagiarism and copy-paste," "limitations of extralinguistic means," etc. Sooner or later, the problems described above will be solved, and new technological and methodological decisions will be made by both programmers and teachers. Moreover, developing the communicative skills of students, which is crucial in teaching ESP courses, acquiring theoretical knowledge, and making practical use of it will yield even more successful results in online learning.

5. Conclusion

Summarizing the results of the research, it is worth emphasizing that it has contributed to evaluating ESP as an academic discipline that plays a prominent role in EFL teaching since it is based on the principle of advancing students' knowledge and skills relating to their future occupations. An ESP course is concerned with the specific English language needs of students aimed at developing communicative skills involving subject-field terminology. ESP teachers should provide students with appropriate linguistic and professional competencies, and to achieve this purpose, they must work in close collaboration with subject-field teachers.

The potential students' needs analysis presented in this paper enhances the quality of curriculum and teaching materials, which leads to the development of more motivating and beneficial programs, as well as contributing to new challenges and transformations in the academic environment. It is also of great significance to develop and implement new courses, particularly in an extreme learning environment. The EBP course created for students of International Economic Relations and implemented in teaching ESP has demonstrated high efficiency and a positive effect on the educational process and contributed to developing innovative teaching methods and styles.

The EBP course that equally pays attention to the development of both linguistic and professional skills has challenged the elaboration of several recommendations for organizing students' activities in ESP classes. Teachers should concentrate on learner interaction (student-centered) rather than lecturing and overwhelming the course with exhaustive lists of words and theoretical grammar explanations. Meaningful interaction with other speakers in the target language enhances the opportunity for developing subject-field knowledge. Consequently, ESP teachers should apply an innovative interactive methodology for advancing communicative skills in the classroom. They should also be wholly aware of the learning needs of their students. Moreover, they should employ a variety of assessment techniques, focusing on the development of "whole brain" capacity and different learning styles. In addition, lessons should involve activities such as presentations, problem-solving, role-play, practical hands-on activities, and specific topic discussions exclusively using the target language.

The research has contributed to the study of transformations and implications of teaching ESP in the contemporary situation involving the use of various challenging strategies and ways of organizing classes. In the academic environment with a shift away from physical classrooms, it is crucial to utilize modern technologies and the worldwide web for conducting online ESP classes to meet students' needs, motivate them, and expose them to different experiences and activities with various techniques.

The analysis of online strategies, educational platforms, the electronic management system Moodle, and the TALAS web application for creating a virtual classroom as a medium for language teaching and learning has encouraged the creation of a new learning space in which users are autonomous and which facilitates the self-learning process. In this situation, the role of teachers is to create a virtual classroom for students, and it is

ultimately the individual teacher who decides if and in what ways an online environment is going to be used. The pedagogical implications of the environment are reflected in successful implicit and explicit language learning results. The methodological effectiveness of this environment can be fully exploited when its constituent elements are successfully combined with each other. We believe that the key to success lies in integrating various ways of online teaching.

The results of TALAS implementation in teaching ESP classes have confirmed that this web application can be effectively used as one of the elements for creating virtual classrooms and makes learning ESP easier, more enjoyable, more self-directed, and more transferable to new situations. Learners and learning processes are at the center of TALAS, which aligns with an emphasis on not only task-oriented but also student-oriented approaches to language learning. Moreover, challenging interactive assignments of this web application influence the quality of knowledge acquisition and have long-term effects on the language produced. Finally, it is worth pointing out that together with other tools applied for online learning, the TALAS web application is an inexhaustible mine of teaching and learning resources.

The analysis of benefits and advantages, as well as risks, disadvantages, and difficulties of online learning, has encouraged our understanding that despite some negative features, online learning is a convenient and flexible option that has proven to be a successful method of training, due to which online education is becoming a way of life for many students. In the contemporary academic environment, online learning is becoming increasingly helpful and demonstrates effective implications and results in teaching both ESP and other academic subjects. In this context, some educators are starting to wonder whether the adoption of online learning will continue to persist in a post-pandemic and post-war situations, and how a shift from the classroom would impact worldwide education. The question remains open for further discussion.

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