

## Information Technologies in the Formation of Foreign Language Grammatical Competence While Teaching a Language for Specific Purposes

**Bohdana Labinska**

Department of Foreign Languages for the Humanities  
Yuriy Fedkovich Chernivtsi National University, Ukraine

**Liubov Zenia**

Department of English and German Philology and Translation  
Kyiv National Linguistic University, Ukraine

**Kvitoslava Matiichuk**

Department of Foreign Languages  
Bukovinian State Medical University, Ukraine  
Corresponding Author: [matiychuk@bsmu.edu.ua](mailto:matiychuk@bsmu.edu.ua)

**Oksana Danylovykh**

Department of Foreign Languages for the Humanities  
Yuriy Fedkovich Chernivtsi National University, Ukraine

Received: 5/6/2021

Accepted: 7/13/2021

Published: 7/26/2021

### Abstract

Although different aspects of grammatical competence and information technologies have been researched quite thoroughly, the issue of integrated application of information technologies to form foreign grammatical competence for future lawyers during their independent work remains lacking. To fill in the gaps regarding literature, this research paper was designed to present the experience of the teachers of the Foreign Languages Department gained during the COVID-19 pandemic period. The current study aims at demonstrating the effectiveness of the virtual learning environment Moodle in the formation of English language grammatical competence of students during their independent work. The study had a quasi-experimental research design with a pre-test and delayed post-test. It was carried out at the Faculty of Law of Yuriy Fedkovich Chernivtsi National University, Ukraine. The participants were fifty 3<sup>rd</sup>-year students of specialty “International Law,” who took part in the survey voluntarily during the fall semester of 2020-2021. The core question of the research is whether this learning tool is effective in forming students’ foreign language grammatical competence. Based on the results of the study, the researchers demonstrate the benefits of studying through the electronic system Moodle. Students increased their ability to understand grammatical constructions in professionally oriented texts. To conclude, the findings obtained in this study can be implemented both in online and blended learning for university students during their independent work while working over English for Specific Purposes.

**Keywords:** electronic system Moodle, English for Specific Purposes, grammatical competence, independent work, International Law students, professionally-oriented texts

**Cite as:** Labinska, B., Zenia, L., Matiichuk, K., & Danylovykh, O. (2021). Information Technologies in the Formation of Foreign Language Grammatical Competence While Teaching a Language for Specific Purposes. *Arab World English Journal (AWEJ) Special Issue on CALL (7)*. 390-405.

DOI: <https://dx.doi.org/10.24093/awej/call7.27>

## Introduction

Due to the current trends of globalization of society and the strengthening of international contacts, knowledge of a foreign language is an integral part of this process. In the context of today's integration and reform of education, universities pay special attention to the training of future workers in International Law. Students must be able to use a Foreign Language (FL) skillfully both as a tool in the dialogue of cultures and civilizations of the modern world and their future professional activity. For successful foreign language communication, it is crucial to possess Grammatical Competence (GC) as far as it helps to understand the structure of language and syntactic constructions, the logic of thinking, the opinions of others, and formulate one's thoughts clearly and logically.

In the XVIII and XIX centuries, during the implementation of grammar-translation and text-translation method of teaching FLs, it was influential to know grammatical rules by heart, use them in sentences for translation, distinguish grammatical constructions based on texts of various genres. It has still not lost its relevance today. During the twentieth century, there was a lot of research in the field of language didactics. New perspectives on language and its functions along with the research results in the field of Psychology, Pedagogy, and Linguistics have led to transformations in the methods of teaching FLs and the transition from translation method to direct method, then to audiolingual and audiovisual methods, and finally to the communicative method of teaching FLs. The communicative approach dominates today and is used to form language and speech competencies in students of both language and non-language specialties in higher education institutions of Ukraine.

At the beginning of the XXI century, the focus of scientists shifted to the use of not only modern methods but also IT for the formation of intercultural language and speech competencies in FLs.

New needs of society as for the ability to communicate in FL necessitated the grammatical structures during communication at the advanced level. In this regard, the curricula in some Ukrainian institutions of higher education (IHE) in certain specialties provide mastering two foreign languages. In particular, the first FL is mainly English, and the second one may be German, French, Spanish, or other languages. According to the Normative Document of the Ministry of Science and Education of Ukraine, namely "The Conception of the Development of English language at the Universities" (2019), students who enter IHE must have B1 level in the first FL and A2 level in the second FL according to the Common European Framework of Reference for Languages: study, teaching, assessment. A student graduating from an IHE must acquire not less than B2 level in the first FL and B1 + in the second FL. Therefore, there is a need to study FLs at the appropriate level, which would allow future professionals to use grammatical constructions in various areas of oral and written speech correctly. Such a level approaches to be B2 level (according to the requirements of curricula for higher education institutions of Ukraine).

The significance of this study stems from the importance of its problem. According to Karpushyna, Bloshchynskyi, Shumylo, Isaieva, & Mysechko (2021), "competencies measure a person's appropriateness for a particular job" (p. 488). Competency-based learning has become a crucial issue in higher education. But after reviewing the relevant literature, the authors haven't found any researches regarding the formation of future lawyers' GC. Thus, to fill in this gap, the

writers conducted this study to describe the experience of using tasks in the electronic system Moodle in the formation of foreign language for specific purposes grammatical competence of bachelor students during their independent work.

To achieve the research aim, the authors set the following objectives:

1. to analyze the scientific literature on grammatical competence, information technologies, and independent work in the formation of grammatical competence;
2. to define grammatical competence;
3. to experimentally identify the effectiveness of the virtual learning environment Moodle in forming the ability of students to understand grammatical constructions in professionally oriented texts.

The study thought to find answers to the following questions:

1. Is it possible to increase law students' ability to understand grammatical constructions in professionally oriented texts by doing specific tasks and tests in the virtual electronic system Moodle during independent work in after-class conditions?
2. Is this learning tool effective in forming students' foreign language grammatical competence?

## Literature Review

A whole number of publications are devoted to the formation of GC and digital technologies. Orlovska (2010) focused her attention on forming GC in an oral speech based on integrated learning in future English teachers. Solomakha (2020) described digital technologies for the construction of foreign GC in early learning of foreign languages (on the example of German). Tschirner (2001) researched the role of grammar in mastering a foreign language. Huuhka (2009) presented strategies for working with foreign grammatical material. Dengscherz, Businger, and Taraskin (2014) offered to teach grammar through the prism of empirical and linguistic research. Schäfer (2015) studied the system of teaching German grammar: theoretical and practical aspects. Mohamed (2020) proved the impact of the Internet and mobile applications on enhancing students' language skills. Turko, Kravchuk, Kashuba, Navolska, and Kutsyi (2020) demonstrated the effectiveness of the electronic system Moodle forming the English language communicative competence of non-language specialties students.

The analysis of all these studies proves that a lot of research has been done on different aspects of GC and information technologies (IT). However, in the context of this university in Ukraine and to the best of the authors' knowledge, no research has been done on the issue of integrated application of IT for the formation of foreign GC in English for Specific Purposes (ESP), particularly for future lawyers during their independent work. Thus, this study is an attempt to fill in the gap in the literature.

The penetration of IT into the educational process creates the preconditions for a radical renewal of both content-targeted and technological aspects of learning. Shchukin (2008) considered IT as a set of methods and means of selection, storage, processing, transmission, and presentation of information that widens people's knowledge and develops their capabilities in managing technical and social processes.

Integrating IT into language education (Dudeny & Hockly, 2012) creates the preconditions for a radical renewal of both content-targeted and technological aspects of learning. Today, according to Kakoulli and Papadima-Sophocleous (2020), “the use of ICT has proceeded with the creation of Massive Open Online Courses (MOOCs), Communities of Practice (CoP) and Open Educational Resources (OERs), and tools such as Learning Management Systems (LMSs), cloud technologies, and artificial intelligence systems.” (p. 18) But there is a lot of future research on using such technologies as grammar checkers, virtual world/serious games, and mobile devices in ESP instruction (Dashtestani & Stojković, 2016).

The use of IT in the study of ESP opens access to new sources of information, increases the motivation of students to receive and process professional information in FLs, provides opportunities for acquisition and consolidation of professional skills, allows implementation qualitatively new forms and methods of teaching FL for specific purposes, and increases the efficiency of independent work of students. And just independent work of students occupies a special place on the formation of GC due to “on the one hand, the inability to master FLs without knowing the grammar of this language, and on the other hand, the difficulties of grammatical material that students need to master” (Zadorozhna, 2011, p. 305).

The authors of this paper understand GC as a set of language knowledge and skills, which will allow the students to express themselves grammatically correctly, and interpret the content of the text due to the field of communication. Students should master grammar material consciously, as it is a question of an advanced GC level.

Mastering GC involves mastering the knowledge of grammatical material and grammatical skills. Following Passov Yu., the authors consider grammatical skill as “the synthesized action on a choice of model, adequate to a speech task in a certain situation and correct registration of a speech unit of any level which is one of the conditions of realization of speech activity” (Passov 1980, p. 97). The development of reproductive grammatical skills has specific structure – students see a new grammatical structure, try to reproduce it, and then produce it in oral or written expressions.

Zadorozhna (2011) suggested three stages of the formation of reproductive grammatical skills: tentative-preparatory, stereotypical-situational and variational-situational. During the appearance of reproductive grammatical skills at the first stage, students learn a new grammatical phenomenon. They perform a grammatical action initially according to the sample (if it is elementary in its structure), or they perform initially individual speech operations that are part of grammatical action based on awareness of ways to accomplish them. At the stereotypical-situational stage, students train to perform grammatical actions automatically. At the next variational-situational stage, they continue to train grammatical structures in the same type of speech situations. At the variational-situational stage, students reach flexibility of their grammatical skills. The formation of receptive grammatical skills also occurs in three stages. At the first stage, students perceive grammatical phenomena in context; they focus their attention on the formal features through which there is an understanding of particular content. At the second stage, students recognize and differentiate new grammatical phenomena and correlate them with a specific meaning in particular appropriately selected contexts (at the sentence level), including

“homogeneous structures.” At the third stage, they perform the same operations in broader contexts, colliding new grammatical structures with those mastered before.

Based on the research of Zadorozhna (2011), the authors would like to consider the specifics of forming English-language receptive GC in law students in “International Law” during their independent work.

In foreign language training of future specialists of non-philological faculties, there is usually a distinction between the language for general use and the language for specific purposes. The requirements for the level of proficiency of ESP for future lawyers have significantly increased in the context of European integration.

To train future lawyers effectively, the university introduced in the curriculum a normative discipline “Foreign language (for specific purposes) (English) for 1<sup>st</sup>- and 2<sup>nd</sup>-year students and an elective discipline “Professional Foreign Language” (English) for 3<sup>rd</sup>-year students.

The authors would like to focus on the third year of professional training of future lawyers. Students in the previous two years have already formed professional competencies to some extent. Their expansion is possible by reading English professional literature in their specialization in the senior years.

The purpose of studying the elective course “Professional Foreign Language” (English) by 3<sup>rd</sup>-year students is to ensure practical knowledge of English at the level necessary for business and professional communication, implementation of communicative intentions related to the professional conditions in writing; to achieve by students the level of knowledge corresponding to requirements of the certified specialist who can apply English in practice.

The specifics of future profession determined the selection of GC among others that constitute professionally-oriented English-speaking intercultural communicative competence, the choice of IT (tasks and tests in the electronic system Moodle), and strategies for their use to form this competence in future lawyers. It is possible to find a comprehensive and systematic description of the objective factors of the profession and the set of its requirements for individual psychological features of a person in a profессиogram. Aronov (2020) underlined that lawyer’s profессиogram “emphasizes the need to have the ability to collect, process and use a large amount of information, the ability to process and prepare documents necessary for legal activities” (p. 107). Obtaining the latest professional information is a priority for the lawyer (novelties of legislation and legal practice, the latest trends in research of legal realities of public life), information on related fields of knowledge and practice, news of social, political, economic, and cultural life (Sushchenko, 2009). The necessity to obtain the latest professional information encourages lawyers to read professional literature, especially in a foreign language.

In the methodology of teaching foreign languages and cultures, the Internet occupies a prominent place among the latest technologies. According to Bihych, Rusnak, Striletz, Korobeinikova, Yaroshenko, and Ihnatenko (2017), there are three groups of educational services of the Internet: 1) informational, 2) interactive, 3) searching. Web 2.0 technologies play an



essential role in foreign language education as “a platform of social services on the Internet, which allows the network user not only to use the information presented on sites but also to act as an author or co-author of the presented materials” (Nikolaeva, Boretska, Mayer, Ustymenko & Chernysh, 2015, p. 41). In the educational process of the Ukrainian IHE teachers often use such social services as Facebook, Viber, Wiki, Twitter, WebQuest, Skype, Moodle, YouTube, and others to form intercultural foreign language communicative competence.

Podcast technology (podcasting) has become widespread in the professional training of future lawyers, the means of realization of which is a podcast – “audio or video recording that can be viewed on the Internet or downloaded to the appropriate device and listened to or viewed offline” (Nikolaeva et al., 2015, p. 55).

To increase the level of GC of students in reading, the researchers proposed a model of teaching English to future lawyers using *a virtual learning environment Moodle*. The use of the virtual environment Moodle provides free access to educational resources, easy file sharing, individual communication between a teacher and students to discuss problems caused by difficulties in mastering grammar material, the availability of online feedback.

The authors implemented the proposed model of organizing the formation of receptive GC of future lawyers using the virtual learning environment Moodle within the elective discipline “Professional Foreign Language” (English) in the following thematic modules:

- Content module 1. Communicative aspect: Being human. Professionally oriented aspect: The media as the fourth power.
- Content module 2. Communicative aspect: Rhythm of life. Professionally oriented aspect: Rights and responsibilities of citizens.
- Content module 3. Communicative aspect: Migration and integration. Professionally oriented aspect: International organizations.
- Content module 4. Communicative aspect: Family and career. Professionally oriented aspect: International protection of the rights of national minorities.

Considering the limited number of in-class hours allocated to studying the discipline “Professional Foreign Language” (English), a significant resource in the formation of English GC of 3<sup>rd</sup>- year students is their independent work, which comprises 60% of the total number of hours. In addition, it is recommended to read professional web texts, ample in volume and sophisticated in content, during independent work. The importance of independent work is significantly growing during long-term online learning caused by the coronavirus pandemic and the necessity to stay in quarantine and self-isolation in 2020 and 2021. Under such conditions, improved forms and methods of independent work will help students master the necessary competencies and ensure their autonomy in the educational and professional environment. And the usage of means of Internet resources “allows creating a favorable environment for individual learning, prompt information and updating of information, which contributes to educational autonomy, self-organization, self-control, and creativity” (Fabian et al., 2021, p. 79). But “teachers of English should not take it for granted that their students have learned a language item, no matter how easy

it is, and they should have their students always review what they have learned” (Yılmaz & Koç, 2020, p. 484).

Although there are some cons of using computer assistance for grammar achievements (Kayaoğlu, Dağ Akbaş & Erbay, 2015), the authors propose to use the virtual learning environment Moodle for the effective organization of independent work of students to improve the receptive GC of future lawyers. This learning tool will help to deepen knowledge and improve the acquired grammatical skills. In addition, the students will be able to practice at a convenient time and see their progress in mastering a particular grammatical structure. They will be able to determine methods of grammatical analysis of problematic grammatical phenomena, choose a strategy for learning a grammatical unit, find the necessary information, simulate communicative situations for the application of a grammatical phenomenon.

The researchers have also selected Internet resources (websites of well-known law firms, specialized magazines, brochures, instructions, samples of documents and reports, chat materials, e-mails). The proposed web texts can serve as learning tools in the process of formation of GC of future lawyers.

Following Lazarenko (2019), the writers single out the following grammatical skills in reading legal web texts:

- skills of identification already known grammatical units in a written web text;
- skills of using contextual guessing for identification of unfamiliar grammatical structures;
- skills of differentiation and identification of language grammatical structures after formal features in a written text;
- skills of forming one’s grammatical minimum.

It is important to note that grammatical skills function in speech activities, in communication situations crucial for form selection. That is why independent work on grammar should involve the use of grammatical phenomena in communication situations related to the profession, which simulate real communication, as far as they “specify the speech actions, determine the perception, understanding or choice of grammatical structure” (Zadorozhna, 2011, p. 310). Situational conditionality of a specific grammatical structure (phenomenon) is a stereotypical complex of external and internal extralinguistic factors or stimuli inherent only in this structure, determining the structure’s appearance in speech. Thus, as a result, the focus is on the dependence of the choice and use of grammatical phenomena on specific speech acts and communicative functions that arise in communication situations.

The authors proposed the system of exercises and tests for the students’ independent work in after-class conditions. That minimizes the degree of controlling students’ learning process, creates opportunities for their independent choice of individual pace, mode, and methods of performing the task, develops skills and abilities of self-control and self-correction.

The writers believe that an essential factor in forming foreign language GC is the students’ awareness of available modern search engines. They allow the student to find quick answers to

questions about the construction and functioning of any grammatical structure and eliminate the difficulties caused by interference from the native language.

Analyzing search engines for learning grammar in a foreign language, the researchers can conclude that students should select them according to precise algorithms. Due to Hupka-Makohin (2016), students' choice is related to their user activity and the ability to manage it in terms of tasks. To develop students' English GC, the authors consider the most rational ability to use the Moodle platform. The thematic plan corresponds to the curriculum, and professionally oriented texts are selected from authoritative, authentic sources.

## **Method**

### ***Participants***

The sample consists of the students of the Faculty of Law of Yuriy Fedkovych Chernivtsi National University. The experiment has been carried out with a sample population composed of fifty 3rd-year students of specialty "International Law," ranging from 19 to 22 years of age. The participants were divided into two groups: experimental and control. The research took place in the fall semester of 2020-2021. The prevailing majority of the participants were females. Although all of them were speakers of Ukrainian, Russian, and, or Romanian languages, participants in both groups ranked Ukrainian as their dominant language.

### ***Research Instrument***

The researchers have used the most common quasi-experimental research design, which requires a pre-test and post-test for a treated and comparison group. The resources for the experiment included 1) tests to check the level of GC of future lawyers before and after the experiment and 2) tasks prepared for independent work in the after-classes conditions in the electronic system Moodle.

Tests, developed by the researchers, consisted of several tasks, which followed the authentic English text in law. The pre-test was designed to gauge the 3<sup>rd</sup>-year students' level of understanding a professional Law English based on grammatical phenomena, included into grammatical minima at the beginning of their fifth academic term. The post-test had to ensure the receptive GC of future lawyers has been formed. The tests consisted of three parts of tasks. They included detecting and correcting of grammar mistakes, choosing the necessary grammatical structure, and multiple-choice questions based on the translation of sentences. All the tasks were pitched at intermediate to upper-intermediate levels according to the Common European Framework of Reference for Languages (CEFL). The time allocated for the test was one hour and a half. Tests were administered in a paper-based format.

The training materials were developed by teachers of the Foreign Languages Department using various online professional sources. All the tasks for independent work in the electronic system Moodle were logically organized and designed following modern methods and techniques.

### ***Research Procedures***

Before the experiment, the purpose was determined: to test the effectiveness of the virtual learning environment Moodle in the formation of GC during independent work of future lawyers.



Next, the researchers formulated the experiment's hypothesis and prepared appropriate materials for before-experimental and after-experimental assessment of the level of GC. Then the writers carried out the experiment, analyzed the data, conducted statistical calculations, tested the hypothesis, and formulated conclusions.

The authors formulated the experiment's hypothesis as follows: future lawyers can achieve a high ability to understand professionally-oriented texts through the acquisition of specific problematic grammatical structures, which can be subject to the application of the tasks in the electronic system Moodle during independent work of students.

The study of the GC of both control and experimental groups showed almost the same level.

At the experimental stage, the teachers uploaded to the Moodle platform modern different types of exercises and tests to form GC. The students of the experimental group had to do all these tasks in the electronic system Moodle during their independent work in the after-class conditions. The students of the control group were trained traditionally. They did exercises from textbooks intended for future lawyers.

After the experiment, a control test was conducted to check the efficacy of the used educational tool. Qualitative and quantitative analysis of the study results was performed. The effectiveness of the administered approach to formation grammatical language competence was defined.

The participants' achievements in the acquisition of grammatical structures in the professionally-oriented texts were interpreted according to the formulae  $K=Q/n$  (where K is the index of students' attainments, Q is the number of correctly used grammatical structures in the test, n is the maximum number of possible grammatical structures in the task) and after K average was calculated (Bespalko, 1968). Traditionally, a learning coefficient of at least 0.7 is considered satisfactory (Cronbach, 1951). Then, the results obtained before and after the experiment were

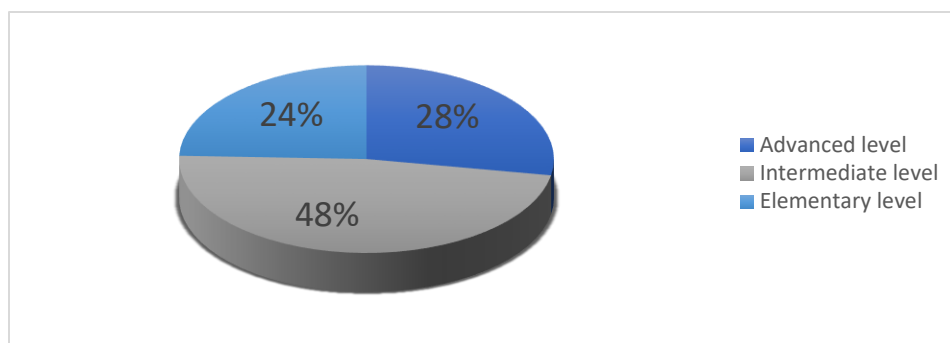
$$CR = \frac{(\sum \lambda_i)^2}{(\sum \lambda_i)^2 + (\sum \epsilon_i)}$$

compared to calculate composite reliability according to the formulae

## Results

Before the experiment, the researchers conducted a survey to identify possible difficulties in developing the ability to understand professional literature in English. According to the survey results, the participants, who were fifty 3rd-year students of specialty "International Law" of the Faculty of Law of Yuriy Fedkovych Chernivtsi National University, showed the need to improve grammatical skills, in particular receptive. Good formation of such receptive grammatical skills supplements perception by recognizing grammatical forms and their correlation with a specific meaning.

Thus, 28% of respondents defined their level of GC as advanced but noted some difficulties in mastering grammatical material; 48% described their level of GC as intermediate, and 24% expressed their level of GC as elementary (see Figure one).



*Figure 1.* Diagnosis of the level of formation of English grammatical competence of International law students

The pre-test also showed the same results. The students had to improve their receptive GC. The control objects were grammatical phenomena, which are included in both active (for speaking and writing) and passive (for reading and listening) grammatical minima. The test had the following tasks after reading the text: 1) to correct the mistakes where possible; 2) to fill in the gaps with the correct grammatical structure; 3) to do multiple-choice tasks (choose the correct translation of the sentence).

As practice shows, insufficiently formed GC of future lawyers prevents the full realization of professional communication, opportunities to study foreign experience, and promote the interaction of Ukrainian legal realities with the realities of foreign countries.

The analysis of the difficulties mentioned by the students allowed singling out grammatical structures, the skills of mastering of which are subject to improvement. The list of grammatical constructions dominant in the professional discourse of lawyers has been clarified and supplemented because of the content of the selected authentic professional web texts with the reflection of information vital for professional activity.

Based on the results of the analysis of scientific sources on the selection of textual material, the authors determined the following criteria for selection of legal web texts: they should comply with curriculum requirements for teaching grammar to law students; be practical, actual, and authentic; carry cognitive value; students should use the training material consistently and continually. The authors have defined the following grammatical phenomena as typical: Perfect Tenses, Passive Voice, Infinitive Constructions, Participle Constructions, and Gerund Constructions.

The researchers have determined the initial level of GC in control and experimental groups (see Table one).

*Table 1. Level of students' foreign language grammatical competence before the experiment*

Problematic grammatical phenomena	Groups	
	control group	experimental group
Perfect Tenses	0.67	0.75
Passive Voice	0.63	0.63
Infinitive constructions	0.5	0.33
Participle constructions	0.57	0.43
Gerund constructions	0.6	0.6

The first table shows that students' understanding specific grammatical structures in both control and experimental groups is not high enough for correct interpretation of professionally oriented texts.

The next stage of the experiment included the approbation of the means of the electronic system Moodle in the independent work of students during online learning.

After the research, the authors analyzed the students' results of the post-test. The positive changes in forming receptive GC, namely the decreasing number of mistakes in translation of sentences with the problematic grammatical structures, have become evident among the students of the experimental group (see Table two).

Table 2. *Level of students' foreign language grammatical competence after the experiment*

Problematic grammatical phenomena	Groups	
	control group	experimental group
Perfect Tenses	0.75	0.83
Passive Voice	0.75	0.88
Infinitive constructions	0.67	0.84
Participle constructions	0.57	0.71
Gerund constructions	0.6	0.8

Analyzing the results in Table two, the researchers can conclude that the number of appropriate usage of given constructions became higher.

After calculating the Composite Variance (CR), the writers received the following results (see Figure two).

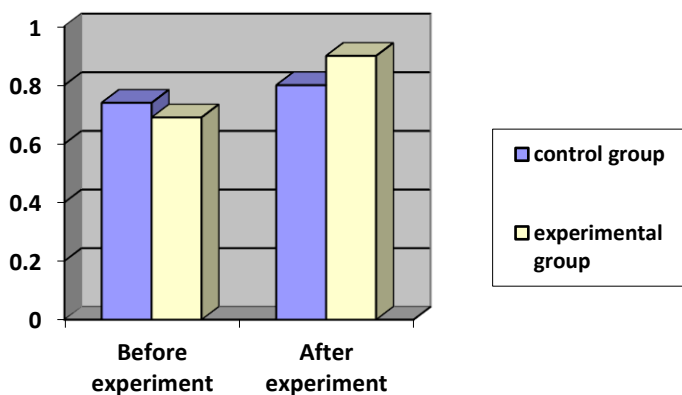


Figure 2. The effectiveness of the tasks in the electronic system Moodle

The result, as shown in the above graph, indicates that the items of the model tested were high in internal consistency reliability and validation to the studied. As shown in Figure two, the reflective construct found their values of composite reliability were higher than 0.7. After the experiment in the experimental group CR=0.9 (with CR=0.69 before the experiment respectively) in comparison to the control group where CR=0.8 (CR=0.74 before the experiment).

Thus, the virtual learning environment Moodle, implemented in the experimental group, helped students increase their foreign language receptive GC, in particular, allowed them to master problematic grammatical constructions. This proves the methodological effectiveness of the applied teaching tool.

### **Discussion**

As the authors noted above, the problem of forming GC with the help of IT for students of specialty “International Law” didn’t find enough research. Dengscherz, Businger, and Taraskin (2014) considered the formation of GC in foreign language learners as an essential prerequisite for correct speech in a foreign language. However, their research did not pay enough attention to the use of IT in the process of mastering grammatical structures. At the same time, Mohamed (2020), Turko, Kravchuk, Kashuba, Navolska, and Kutsyi (2020), Solomakha (2020) considered the use of IT to master grammar an essential means of learning but did not focus on the specifics of studying English for Specific Purposes during independent work of students. An important place for our study occupies the position of Zadorozhna (2011), which focuses on organizing independent work of future English teachers on practical language training. Still, the author did not consider the specifics of teaching ESP.

Thus, the study proposed by the authors makes a significant contribution to the practical teaching of English for Specific Purposes. Besides the theoretical foundations of forming GC with the help of IT during the independent work of a law student, investigation contains a specific model of learning, and the data of the experiment.

The results regarding the experiment data showed that neither the experimental nor control group significantly improved their pre-test performances over the post-test. This finding is similar to Yilmaz & Koc’s (2020) study, in which they found that “no significant changes were expected because the starting point of the participants was already rather high” (p. 483). But the training model was successfully applied. Independent training improved the usage of the possible grammatical forms, while Yilmaz & Koc (2020) mentioned one of the reasons of the skill decrease right after the treatment in their research as “the treatment sessions did not include explicit teaching, which shows the possible grammatical forms the formulaic sequences could be in and used” (p. 483).

The examination of the receptive foreign language GC after using such an educational tool as the electronic system Moodle showed that law students improved their products.

The study’s findings show that this learning tool can be implemented successfully into independent online learning. The virtual learning environment Moodle had significant effects on achieving the required learning outcomes. After the four-month treatment, the experimental group was more aware of problematic grammatical constructions than the control group. Yilmaz & Koc (2020) found a similar result in their study regarding formulaic sequences in forming pragmatic competence. But the authors should admit that the result was determined by learning tools rather than by learning material. Students of the control group studied using textbooks and homework notebooks which included similar tasks.

The writers must mention that not only students' GC but also writing skills have improved. Future lawyers could differentiate and translate grammatical constructions in professionally-oriented texts much easier, but they could also explain their ideas and draw conclusions in a written form.

The authors noticed that the students who worked persistently at their own pace over all the tasks in the electronic system Moodle were more motivated to learn English. The results support Fabian et al.'s (2021) study, which found that the usage of IT contributes to self-organization.

Finally, the experiment results proved the effectiveness of the virtual learning environment Moodle with CR=0.9 in the experimental group.

To conclude, a student with formed GC will have the following language skills: to choose syntactic structures under the intention of a communicative situation; to understand the grammatical structure of speech; to use a standard rate of speech, understanding the process of constructing a sentence at the beginning of the statement; to agree grammatically correctly the tense forms of the verbs in the sentence.

Thus, the formation of GC of students is an essential component in learning a foreign language, as it contributes to the effective implementation of their professional, communicative practice.

The researchers should note that such experience to use the Moodle platform to improve language GC is vital for Ukrainian universities because International law students take an external state examination when applying for a Master's program. Such an exam takes place in the online format of an Independent Testing Center in Ukraine. The training the researchers offered can help the students prepare for admission to the Master's degree program.

## **Conclusion**

The present study is to reveal the learning experience of bachelor students of law. The investigation has to determine whether future lawyers can form their grammatical competence during their independent work, using the virtual learning environment Moodle, while studying English for Special Purposes. The current research is limited to a small sample of learners from Yuriy Fedkovych Chernivtsi National University in Ukraine. The findings reveal that students can form the ability to understand grammatical constructions in professionally oriented texts while working at their own pace. Additionally, they are motivated to do the tasks prepared and uploaded to the virtual learning environment Moodle. Moreover, students can use the correct tense forms of the verbs much easier after their online training.

Thus, the virtual learning environment Moodle offers considerable promise for educators in teaching ESP. Students can have more democratic ways of autonomous learning using digital technologies and working at their own pace.

The study results will contribute to the development of GC of students, use of online learning applications, development of critical thinking, development of reading and writing skills in English.



Further studies can investigate other online learning aids. Research works can be done to find out better learning tools for improving GC in the independent work of students of other natural sciences. Moreover, more researches can be done on enhancing GC based on listening, namely on video presentations of court hearings.

#### About the Authors:

**Bohdana Labinska** is a Full Professor, Head of the Department of Foreign Languages for the Humanities Yuriy Fedkovych Chernivtsi National University, Ukraine. Her research interests include the History of Pedagogy and Modern Methods of Foreign Language Teaching. (ORCID ID: <https://orcid.org/0000-0001-5232-8022>).

**Liubov Zenia** is a Dean of the School of Translation Studies, Professor of the Department of English and German Philology and Translation in Kyiv National Linguistic University, Ukraine. The author's academic interests include improvement the efficiency of professionally-oriented teaching of foreign languages and cultures, and the development of professional and personal qualities of specialists during professional training. (ORCID ID: <https://orcid.org/0000-0002-0273-1494>).

**Kvitoslava Matiichuk** is a Senior Lecturer of the Department of Foreign Languages, Bukovinian State Medical University, Ukraine. Her main research areas are Foreign Languages, Language Pedagogy, English for Special Purposes. (ORCID ID: <https://orcid.org/0000-0002-3164-7937>).

**Oksana Danylovych** is an Associate Professor of the Department of Foreign Languages for Humanities, Yuriy Fedkovych Chernivtsi National University, Ukraine. Her main research interests relate to Semantics, Applied Linguistics, Language Pedagogy. (ORCID ID: <https://orcid.org/0000-0003-4270-2740>).

#### References

- Aronov, Ya. (2020). *The professional culture of a lawyer and its significance in legal practice*, (Unpublished Doctoral dissertation). University of Economics and Law "Krok," Kyiv. Retrieved from [https://library.krok.edu.ua/media/library/category/disertatsiji-avtoreferati-vidguki/aronov\\_2020-disertatsija.pdf](https://library.krok.edu.ua/media/library/category/disertatsiji-avtoreferati-vidguki/aronov_2020-disertatsija.pdf)
- Bespalko, V.P. (1968). Experience in developing and applying evaluation criteria for knowledge acquisition. *Sovetskaja pedagogika*, 4,52-59.
- Bihych, O. B. et al. (2017). *Case study and podcast technology of forming intercultural competence: a collective monograph*. Kyiv, Ukraine: Vyd. tsentr KNLU. <http://rep.knlu.edu.ua/xmlui/handle/787878787/165>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. Doi: 10.1007/bf02310555.
- Dashtestani, R., & Stojkovic, N. (2016). The Use of Technology in English for Special Purposes (ESP) Instruction: A Literature Review. *The Journal of Teaching English for Specific and Academic Purposes*, 3(3), 435–56. <http://espeap.junis.ni.ac.rs/index.php/espeap/article/view/304>.

- Dengscherz, S., Businger, M., & Taraskina, J. (2014). *Grammatikunterricht zwischen Linguistik und Didaktik. DaF/DaZ lernen und lehren im Spannungsfeld von Sprachwissenschaft, empirischer Unterrichtsforschung und Vermittlungskonten* [Grammar lessons between linguistics and didactics. DaF/DaZ learn and teach in the field of tension between linguistics and empirical teaching research]. Tübingen: Narr.
- Dudeny, G., & Hockly N. (2012). "ICT in ELT: How Did We Get Here and Where Are We Going?" *ELT Journal*, 66(4), 533-42. <http://doi.org/10.1093/elt/ccs050>
- Fabian, M., Shavlovska, T., Shpenyk, S., Khanykina, N., Tyshchenko, O., & Lebedynets, H. (2021). Information Technologies in The Process of Teaching Foreign Languages in Higher Educational Institutions. *International Journal of Computer Science and Network Security*, 21(3), 76 – 82. <https://doi.org/10.22937/IJCSNS.2021.21.3.11>
- Hupka-Makohin, N. I. (2016). *Training of future specialists in international economics in professionally oriented English listening in individual work*, (Unpublished Ph.D. dissertation). Volodymyr Hnatyuk Ternopil National Pedagogical University, Ternopil.
- Huuhka, E. (2009). *Grammatik und Lernstrategien beim fremdsprachlichen Lernen*. Berlin: Universität Tampere.
- Kakoulli, C. E., & Papadima-Sophocleous, S. (2020). The Use of Digital Technology in English for Special Purposes: Current Practices and Suggestions for ESP Teacher Education. *The Journal of Teaching English for Specific and Academic Purposes*, 8(1), 17 – 29. <https://doi.org/10.22190/JTESAP2001017K>
- Karpushyna, M., Bloschchynskyi, I., Shumylo, I., Isaieva, I., & Mysechko, O. (2021). English Linguistic Competencies Formation through Specially Designed Border Guards' Practical Training. *Arab World English Journal*, 12 (2) 479-495. DOI: <https://dx.doi.org/10.24093/awej/vol12no2.33>
- Lazarenko, S. V. (2019). *Methods of Autonomous Mastering of English Lexical and Grammatical Competence in Reading by Future Military Specialists in Information and Communication Technologies*, (Unpublished Ph.D. thesis). Kyiv National Linguistic University, Kyiv.
- Mohamed, O.I. (2020). The effectiveness of Internet and Mobile Applications in English language learning for Health Sciences' Students in a University in the United Arab Emirates. *Arab World English Journal*, 12(1), 181-197. DOI: <http://dx.doi.org/10.24093/awej/vol12no1.13>
- Naci Kayaoğlu, M., Dağ Akbaş, R., & Erbay, S. (2015). The Role of Web-Based Grammar Instructions in the Tertiary Level EFL Students' Academic Achievements. *The Journal of Teaching English for Specific and Academic Purposes* 3(3), 499–507. Available at <http://espeap.junis.ni.ac.rs/index.php/espeap/article/view/247>
- Nikolaeva, S. Y., Boretska, H. E., Mayer, N. V., Ustymenko, O. M., & Chernysh, V. V. (2015). *Modern technologies of teaching foreign languages and cultures in secondary and higher educational institutions: collective monograph*. Kyiv: Lenvit. Available at <http://rep.knlu.edu.ua/xmlui/bitstream/handle/787878787/272/%20%2015.pdf?sequence=1>
- Orlovska, L. K. (2010). *Formation of grammatical competence in an oral speech based on integrated learning in future English teachers*, (Unpublished Ph.D. thesis). Kyiv National Linguistic University, Kyiv. <https://www.knlu.edu.ua/en/research/189-dissertation-councils/140-d-26-054-01>

- Passov, E. I. (1980). *Theoretical foundations of teaching a foreign language in high school*, (Unpublished Doctoral dissertation). Lipetsk Pedagogical Institute, Lipetsk.
- Schäfer, R. (2015). *Einführung in die grammatische Beschreibung des Deutschen* (Textbooks in Language Sciences 2). Berlin: Language Science Press.
- Shchukin, A.N. (2008). *Linguodidactic encyclopedic dictionary*: more than 2000 units. Moskow.
- Solomakha, A. V. (2020). Application of digital technologies for the formation of foreign language grammatical competence in early learning of foreign languages (on the example of German). *Open educational e-environment of modern University* 8, 121 – 135. Retrieved from [http://elibrary.kubg.edu.ua/id/eprint/31298/1/A\\_Solomakha\\_VOSSU\\_8\\_PI\\_FLMD.pdf](http://elibrary.kubg.edu.ua/id/eprint/31298/1/A_Solomakha_VOSSU_8_PI_FLMD.pdf)
- Sushchenko, V. M. (2009). Model of professional culture of a lawyer: criteria and approaches. *Scientific notes of NatUKMA (National University "Kyiv-Mohyla Academy")*. *Legal Sciences*, 90, 29-33. <http://ekmair.ukma.edu.ua/handle/123456789/2613>
- The Normative Document of the Ministry of Science and Education of Ukraine. (2019). The Conception of the Development of English language at the Universities. 2019. Available at <https://mon.gov.ua/ua/news/mon-stvorilo-koncepciyu-rozvitku-anglijskoyi-v-universitetah-u-dodatku-riven-v1-obovyazkova-umova-vstupu-v2-vipusku-vikladannya-profilnih-disciplin-inozemnoyu-ta-movni-skriningi>
- Tschirner, E. (2001). Kompetenz, Wissen, mentale Prozesse: Zur Rolle der Grammatik im Fremdsprachenunterricht [Competence, knowledge, mental processes: the role of grammar in foreign language teaching]. In H. Funk & M. Koenig (Eds.). *Kommunikative Fremdsprachendidaktik – Theorie und Praxis in Deutsch als Fremdsprache; Festschrift für Gerhard Neuner zum 60. Geburtstag* (pp. 106 – 125). München: Iudicium Verlag.
- Turko, O., Kravchuk, T., Kashuba, O., Navolska, H., & Kutsyi, I. (2021). The Latest Tools for the Formation of Foreign Language Communicative Competence of Students of Non-language Specialties. *Arab World English Journal*, 12(1), 443-457. DOI: <http://dx.doi.org/10.24093/awej/vol12no1.29>
- Yilmaz, N., & Koc, D. K. (2020). Developing pragmatic comprehension and production: Corpus-based teaching of formulaic sequences in an EFL setting. *Journal of Language and Linguistic Studies*, 16(1), 474-488. Doi: 10.17263/jlls.712880. Available online at [www.jlls.org](http://www.jlls.org)
- Zadorozhna, I. P. (2011). *Organization of individual work of future English teachers on practical language training*: monograph. Ternopil, TNPU.