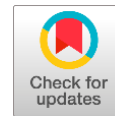


Formation of lexical competence in foreign philology (English) students during online education



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Abstract The research aims to examine the implementation of a model for developing lexical competence in distance learning students. It involves surveying educational institutions through the internet to assess their ability to foster lexical competence. The study findings indicate that teachers employ various tools to enhance lexical competence, such as Kahoot! (95.6%), Moodle (95.5%), Duolingo (89.7%), Google Forms (89.6%), Lingohut (89.2%), and Quizlet (84.7%). Moreover, teachers utilize specific exercises to develop lexical competence, including translation of international words into Ukrainian (95.5%), communicative exercises promoting natural speech usage (95.3%), and exercises comparing words with their definitions (89.5%). Regarding lexical competence development in distance learning, teachers employ control tasks, self-checking tasks, test tasks, and project tasks (98.3%), translation of terms (94.1%), use of lexical constructions in communication (93.8%), and exercises for statement correction (92.4%). The study reveals that ICTs have a positive impact on lexical competence development (95.5%), with a small portion (3.3%) expressing uncertainty, and a minority (1.2%) noting certain disadvantages. A model for developing lexical competence in distance learning has been formulated, incorporating clear goals, objectives, and expected outcomes.

Keywords: lexical competence, students, distance learning, educational institutions

1. Introduction

In recent years, the advent of online education has transformed the landscape of learning, offering students the flexibility and accessibility to pursue their academic goals from anywhere in the world. This paradigm shift has not only impacted traditional subjects but has also influenced the field of foreign philology, particularly in the development of lexical competence among English students. Lexical competence, encompassing vocabulary acquisition, word usage, and contextual understanding, plays a fundamental role in language learning and proficiency.

However, the transition from traditional classroom settings to online education has presented both challenges and opportunities in fostering lexical competence among foreign philology students. While online platforms offer a wide array of multimedia resources, interactive exercises, and virtual language immersion experiences, they also introduce unique obstacles such as limited face-to-face interaction, potential distractions, and reduced opportunities for spontaneous oral communication. Thus, it becomes crucial to explore how online education affects the formation of lexical competence and to identify effective strategies that can enhance language acquisition and proficiency.

The purpose of research is to establish the regularity of promoting the implementation of the model of forming lexical competence in students in distance learning by surveying the Internet to determine the ability of educational institutions to form lexical competence in students.

According to the goal, the following tasks are set:

1. To survey students to identify certain signs of lexical competence formation in students in distance learning.
2. Explore the dynamics of lexical competence development among students in distance learning.

2. Literature Review

The modern concept of higher education envisages the organization of the educational process based on developing a set of basic competencies of a general cultural and professional nature that are necessary for students in their respective fields of activity. The main tasks facing students due to modern conditions are to master all types of speech activities and professional communication skills, which are formed based on studying professional vocabulary. These requirements for the student are



caused by the need to educate future specialists in a high level of professional and communicative competence, which is unlikely to occur without mastering professional vocabulary (SevaraBaxodirovna et al 2021).

The main tasks of the foreign language teaching system are the formation and development of communicative competence in students and its components: communicative, intercultural, discursive, linguistic and cultural, lexical, and other types of competencies in the training of a modern specialist. Vocabulary is noted as an important tool for the exchange of information and mutual understanding between communicators in the course of professional activities. Vocabulary in the learning process is not learned productively, but receptively, since students have limited dialogic and communicative capabilities. In the process of oral communication, learning vocabulary contributes to the formation of professionally oriented lexical competence, which lies in developing the ability of students to communicate professionally in a foreign language (Bakirova 2022).

In this regard, mastering vocabulary for use in speech is one of the main tasks of students studying a foreign language in a higher education institution. The applicant for education should pay special attention to the work on vocabulary. The leading role in the process of achieving this goal is played by linguistic and lexical competence, which is based on lexical and grammatical skills since without linguistic and lexical competence, any communication is impossible. Only linguistic and lexical competence ensures an understanding of semantic segments of speech, which are formed following the norms and requirements of the respective foreign language (Sadenova et al 2017). Thus, modern principles of higher education provide for the organization of the educational process based on a set of competencies that are of a general cultural and professional nature and are important in future professional activities (Bakirova 2022).

The relevance of comparative studies in the field of education, science, and culture in the realities of modern trends in the development of education is beyond doubt, as they provide intercultural and interethnic communication. Modern researchers pay special attention to the area and professional training of students based on a competency-based approach. A lot of comparative studies are devoted to the problems of peculiarities of forming lexical competence in students in distance learning, formation of value orientations, positive outlook of society members, etc (Czerkawski, Berti 2020; Savchuk et al 2019).

For this research purpose, the concept of distance learning is defined as "an innovative approach to the provision of education through electronic forms of information that contribute to the improvement of skills, knowledge and other academic achievements of students" (XaymoungNhoun et al. 2012; Babu, Sridevi 2018; Coman et al 2020; Ogar 2021), methods for organizing educational systems (Shirkhani, Vahedi, Arayesh 2016). Distance learning is defined as "an educational process in which all or most of the teaching of the educational process is conducted by a teacher who is remote in space and/or time from students, with the consequence that all or most of the communication in the learning process between teachers and students is carried out using an artificial device". (UNESCO 2002). Other scholars define the term distance learning as the use of modern information and communication technologies (ICT) through computer networks to provide learning materials and educational information to students and teachers (Ozkan, Koseler 2009; Noorulhasan Naveed et al. 2017; Servage 2005; Czerniewicz and Brown 2009).

Practical mastery of foreign professional vocabulary is characterized by the fact that the student can differentiate similar word forms based on informative features. Moreover, he or she can easily correlate the visual image with the semantics, distinguish between synonymous, homonymous, and antonymic phenomena, have the skills of receptive combination and recombination of new and previously learned lexical material, apply word-formation and contextual speculation (Caro and Mendiñeta 2017). The main structural components of linguistic competence include grammatical and lexical competence (Din and Ghani 2018). Lexical competence is defined as the ability of the student to establish the contextual meaning of a word, compare the meaning of a word in two languages, understand the structure of the meaning of a word, and establish the national meaning of a word, where this ability of the student "is based on lexical knowledge, skills, the personal and linguistic experience of the individual" (Kosovych and Sokol 2020).

Based on the analysis of the scientific works of Greb M., and Yarema I., it was found that one of the leading determinants of the communicative competence of students is lexical competence. It consists of conscious and motivated mastery of linguistic lexical means and the ability to use them in the process of communication (Greb 2015; Yarema 2012; Horbatiuk et al 2019). I. Yarema understands lexical competence as the ability of an education applicant to use a language dictionary based on the acquired lexical knowledge. Moreover, it is crucial for the student to apply lexical concepts from long-term memory using differentiated expressions, sayings, proverbs, and phraseological units in the process of communication, as well as to constantly support the development of lexical skills at the required level and monitor the lexical content of their speech." (Yarema 2012).

Lexical competence in a foreign language is the linguistic basis of a learner's professional communicative competence, which can be considered as a dynamic unit where the lexical competence of students is formed in the process of their communicative activity. Communicative competence is improved with the development of lexical competence, which indicates that their formation is interrelated (Velasco 2007).

Professional lexical competence expresses the ability of students to use appropriate vocabulary, which in the course of the educational process contributes to the formation of relevant skills. The language experience of the students is gained in differentiated situations that are interrelated to their future professional activities (Sosyal et al 2014). The lexical component, as a linguistic part of communicative competence, includes the knowledge, skills, and competencies that a student needs to

form an appropriate model of understanding and style of speech in a foreign language that meets the relevant goals and situations of professional communication. This, in turn, requires mastery of the basic concepts of linguistics (methods, types, ways of connecting sentences in a text, etc.), skills and abilities of text analysis, and communicative skills, i.e. knowledge of how to apply them correctly in different areas and differentiated situations (Bakirova 2022).

To develop lexical skills, students must learn to identify strong paradigmatic associations of words, because these connections increase the strength of memorization and, therefore, the immediate recall of words from long-term memory, whereas without this skill, combining words in syntagmatic relations may be useless. Ensuring that the learned vocabulary is constantly updated and rotated as much as possible by students is the main factor that accelerates the increase in semantic fields. The enrichment of the active vocabulary of the student should be carried out not through the mechanical introduction of new vocabulary but through the creative use of already learned vocabulary in new contexts (Bashkir et al 2021).

The formation of professionally oriented lexical competence of the student will be much more effective when the student will consider the correlation between the form and meaning of the lexical unit in the native and foreign languages and the possible interference of the word under study. The following groups of words are best, easier, and more intensively learned by the student: international and borrowed words, the meaning of which is the same in both languages; derivatives and compound words, the structural components of which are familiar to students; root words, the range of meanings of which in the two languages does not contradict each other (Kiliçkaya, Krajka 2010; Abusa'aleek 2015).

Professional communication is characterized by the presence of specific vocabulary used by specialists in the relevant field of activity. Special vocabulary is a combination of words and phrases that name objects and concepts that are interrelated with differentiated areas of activity of a person and are marked as not commonly used. The systematic mastery of professionally oriented vocabulary by the student consists of the use of a set of non-communicative and conditionally communicative exercises to improve reading, speaking, and writing skills in the professional field (Díaz Frías 2014; Rasuoli, Jafari 2016).

Thus, the formation of lexical competence in students in distance learning involves mastering the meanings of a lexical unit, its spelling, and pronunciation, knowledge of grammatical forms of words, synonyms, homonyms, and antonyms, and mastering the rules of compatibility with other lexical units. An integral part of the formation of students' lexical competence is exercises used at all stages of the formation and improvement of students' lexical skills. To ensure the organization of the educational process, it is necessary to systematically perform exercises by students, most of which they should perform independently at a convenient pace and at a convenient time. This will affect the effective process of forming lexical competence in students (Kosovych, Sokol 2020; Demenchuk 2018).

Thus, the problem of forming lexical competence in students in distance learning and the study of obstacles to the formation of lexical competence in students is insignificantly reflected in scientific publications in the form of theoretical research and practical studies. However, the issue of promoting the implementation of professional training and the formation of lexical competence in students in distance learning at educational institutions remains relevant and open for further research.

3. Method

The article uses such methods as:

1. Systematic and logical analysis: This method was employed to develop a model for the formation of lexical competence in students during distance learning. It involved a comprehensive and structured examination of relevant information to establish a coherent framework.
2. Method of information synthesis: This method was utilized to determine the dynamics of lexical competence formation in students engaged in distance learning. It involved synthesizing and summarizing the latest scientific publications related to the analysis of methods, tools, and techniques used for studying trends in the use of information and communication technology (ICT) to develop lexical competence in students.
3. Method of comparison: This method was applied to distinguish between the outcomes achieved and the process of forming lexical competence in students during distance learning. It involved contrasting and examining different aspects to gain insights into the effectiveness of the educational approach.

To investigate the specific features of lexical competence formation in distance learning students, a survey was conducted using descriptive statistics. The survey was administered through MS Forms Pro and aimed to assess students' perceptions of educational institutions' ability to develop lexical competence in the distance learning context. It was conducted online from September 24 2022, to January 29 2023, with a sample size of 2,500 students enrolled at Kyiv National Linguistic University (KNLU), Kyiv Slavonic University (KSU), Ivan Franko National University of Lviv (LNU), Oles Honchar Dnipro National University (DNU), and the National University of Kyiv-Mohyla Academy (NaUKMA).

Participants were asked questions about their learning experiences, motivations, expectations, and overall satisfaction with the competency-based approach to developing lexical competence. The survey aimed to address the following research questions:

- What ICT tools do teachers utilize to develop students' lexical competence during distance learning?

- What types of exercises are used to enhance students' lexical competence in the distance learning context?
- What specific tasks do teachers assign to facilitate the formation of lexical competence in students during distance learning?

By analyzing the collected data and responses to these research questions, the study aims to gain valuable insights into the methods, tools, and techniques employed in distance learning to foster lexical competence among students.

4. Results

In 2022, a survey was conducted among students from Kyiv National Linguistic University (KNLU), Kyiv Slavonic University (KSU), Ivan Franko National University of Lviv (LNU), Oles Honchar Dnipro National University (DNU), and the National University of Kyiv-Mohyla Academy (NaUKMA) to analyze the use of information and communication technologies (ICTs) for developing lexical competence in distance learning. The students were asked the question, "What ICTs are used to develop lexical competence in students in distance learning?"

According to the survey results, the students from these educational institutions reported the following ICT tools as the most commonly used: Kahoot! (95.6%), Moodle (95.5%), Duolingo (89.7%), Google Forms (89.6%), Lingohut (89.2%), and Quizlet (84.7%) (Figure 1). These findings provide insights into the specific ICT platforms utilized by students to enhance their lexical competence during distance learning.

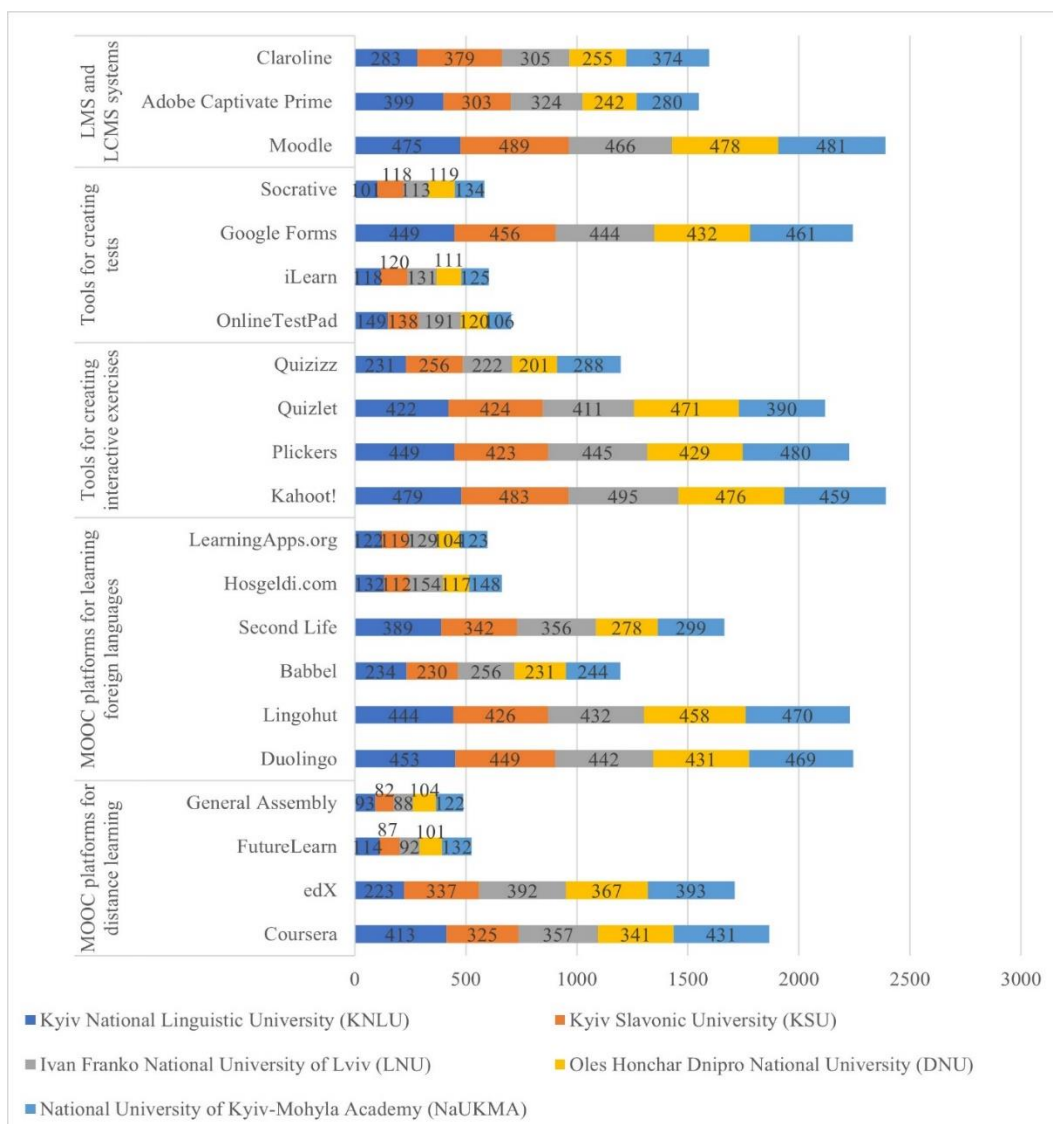


Figure 1 What ICTs are used to develop lexical competence in students in distance learning. Source: Compiled by the authors.

When creating exercises for students engaged in distance learning, teachers should take into account four stages for developing students' lexical competence (Figure 2). The survey results revealed the exercises utilized by teachers to foster lexical competence in distance learning students, including:



- Translation of international words into Ukrainian (95.5%)
- Communicative exercises focused on applying learned lexical material in speech, simulating natural communication (95.3%)
- Exercises involving the comparison of words with their definitions in Ukrainian or foreign languages (89.5%).

These findings highlight the specific exercises employed by teachers to promote the development of lexical competence among students participating in distance learning.

Notes: Stage 1. – Mastering the word at the paradigmatic level to form a sound, motor, and graphic image of the word based on listening exercises; Stage 2. – Forming the meaning of the word at the syntagmatic level to establish the connections in which the word can intervene (building phrases with the studied lexical items); Stage 3. – Developing the meaning of the word at the syntactic level by making sentences with the corresponding phrases; Stage 4. – Ability to choose the best meaning depending on the communication situation and the ability to match the context to this meaning while listening and speaking.

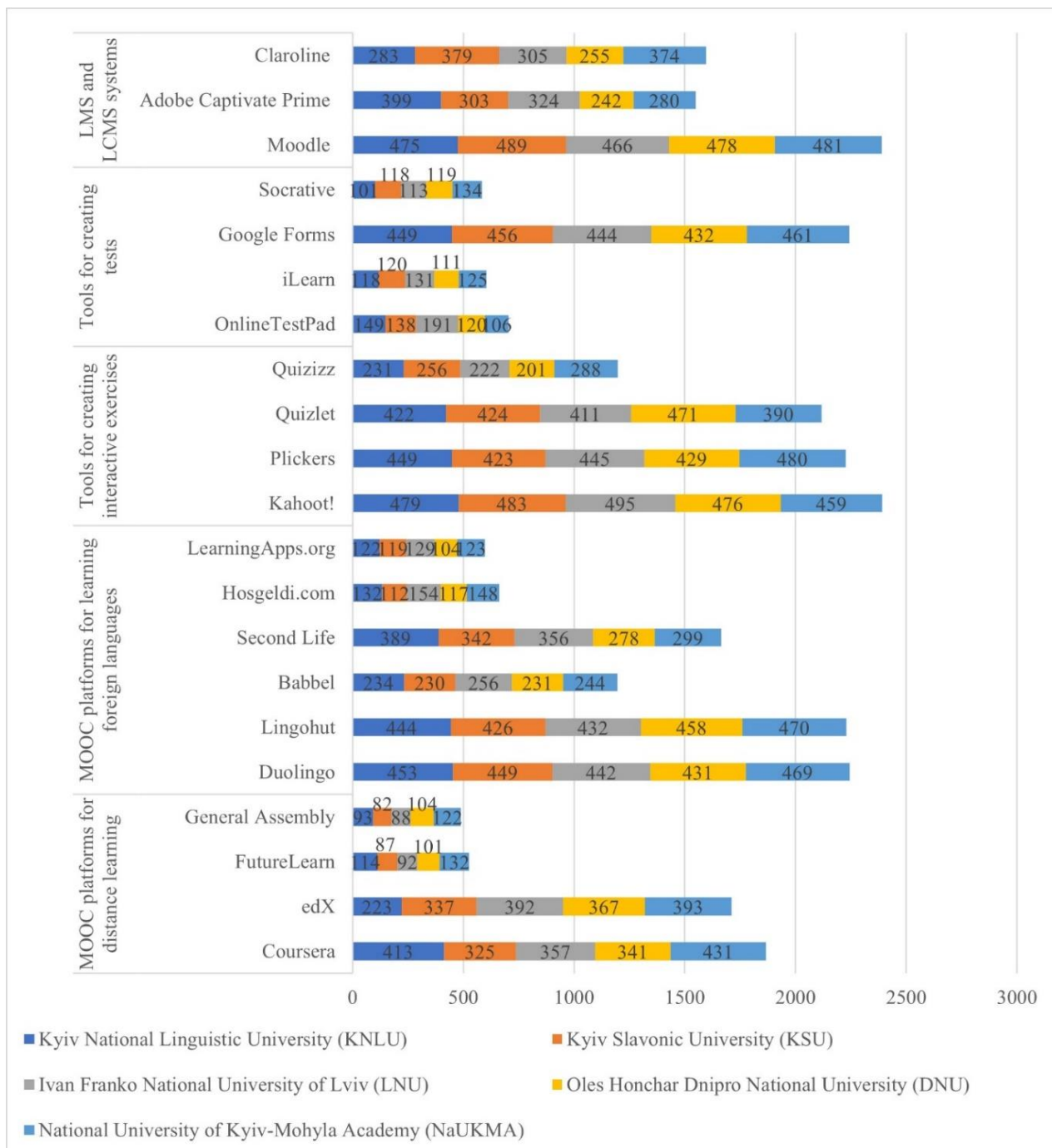


Figure 2 What exercises are used to develop lexical competence in students during distance learning. Source: Compiled by the authors.



As part of the development of students' lexical competence in distance learning, teachers use the following types of tasks for students' remote processing of differentiated learning material: control tasks, self-check tasks, test tasks, and project tasks (98.3%), translation of terms (94.1%), use of lexical constructions in communication (93.8%), exercises to correct statements (92.4%) (Figure 3).

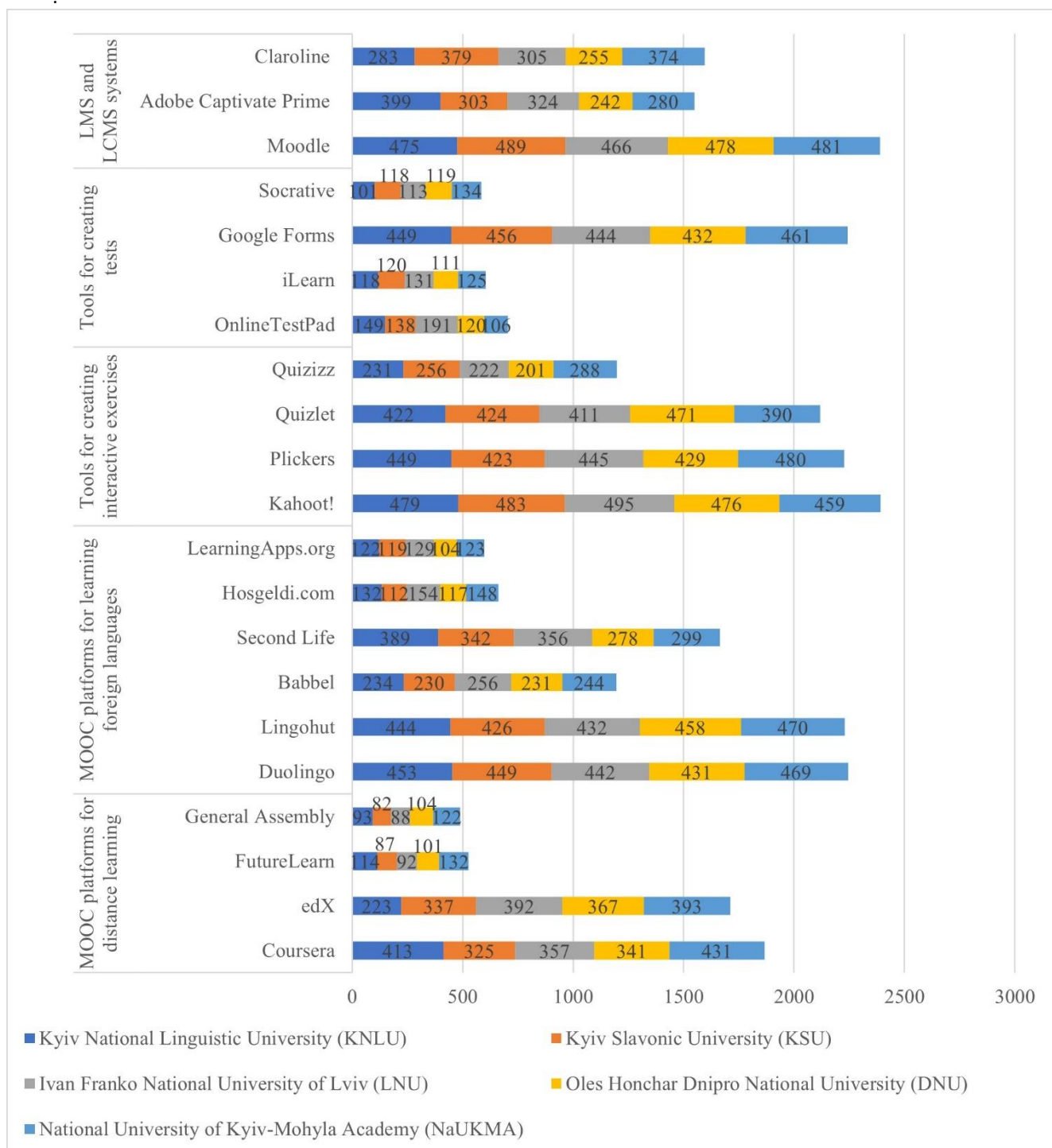


Figure 3 What tasks do teachers use to develop students' lexical competence in distance learning. Source: Compiled by the authors.

To assess the effectiveness of ICTs for the development of lexical competence in distance learning in 2022, a significant number of students noted that ICTs have a positive impact on the development of lexical competence in students (95.5%). A smaller number (3.3%) were not sure of the positive impact of ICTs on the development of lexical competence in students, and the remaining respondents noted that ICTs for the development of lexical competence in students have certain disadvantages (1.2%) (Figure 4).



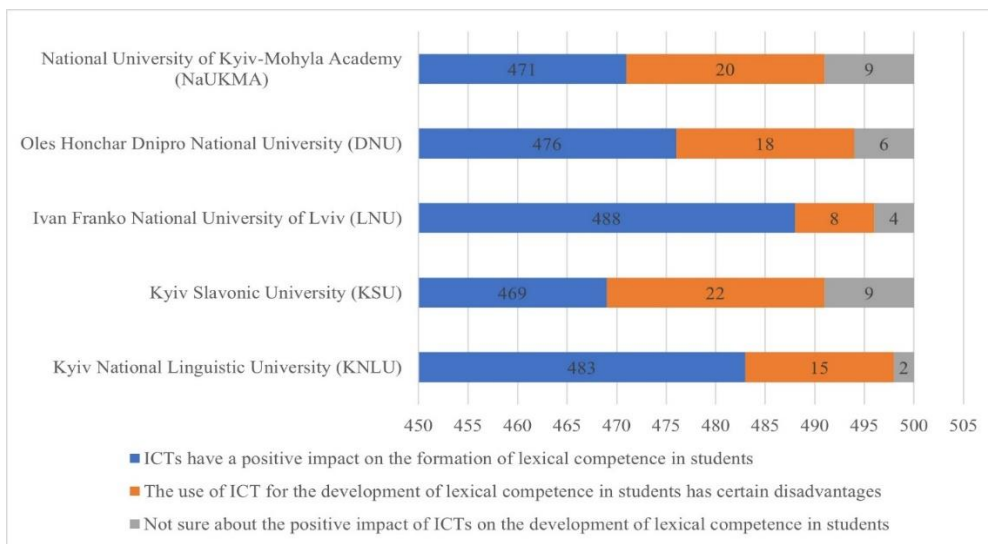


Figure 4 Analysis of trends in the use of ICTs for the formation of lexical competence in students in 2022. *Source:* Compiled by the authors.

Based on the analysis of the conditions for the formation of lexical competence in students, we have developed a model to ensure the effective formation of lexical competence in students in distance learning. It provides for the definition of the goal, objectives, and predicted result and consists of the following components: conceptual and target (goal and stages of ensuring the formation of lexical competence in students), content (principles of foreign language teaching), technological (methods, techniques, forms, and means of teaching) and evaluation and result (evaluation criteria and levels of learning achievements) (Figure 5).

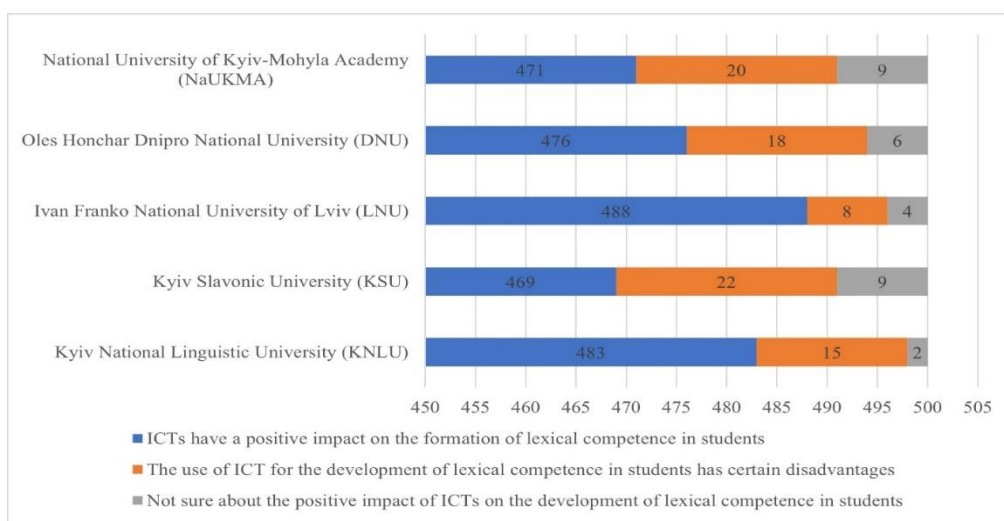


Figure 5 A model for the formation of lexical competence in students in distance learning. *Source:* Compiled by the authors.

In order to assess the effectiveness of the proposed system for developing lexical competence, specific tasks were created to evaluate the level of lexical competence among distance learning students based on specific criteria. These criteria include linguistic and normative aspects, cognitive and activity-related factors, behavioral and attitudinal indicators, as well as motivational and value-based elements. These tasks are designed to provide a comprehensive evaluation of students' lexical competence across multiple dimensions.

The dynamics of lexical competence formation among students engaged in distance learning are visually presented in Figure 6. This graphical representation illustrates the progression and changes in students' lexical competence over time. It allows for a clear understanding of how students' skills and knowledge in the domain of lexical competence evolve throughout the duration of their distance learning experience.

By employing the developed tasks and analyzing the dynamics showcased in Figure 6, researchers and educators can gain valuable insights into the effectiveness of the proposed system for fostering lexical competence in distance learning students. These insights can inform future refinements and improvements in the system, ultimately enhancing the overall quality of lexical competence development in the context of distance education. To establish the effectiveness of the proposed system of work, tasks were developed to determine the level of lexical competence of students in distance learning according

to certain criteria: linguistic and normative, cognitive and activity, behavioral and attitude, motivational and value. The dynamics of the formation of lexical competence in distance education students are shown in Figure 6.

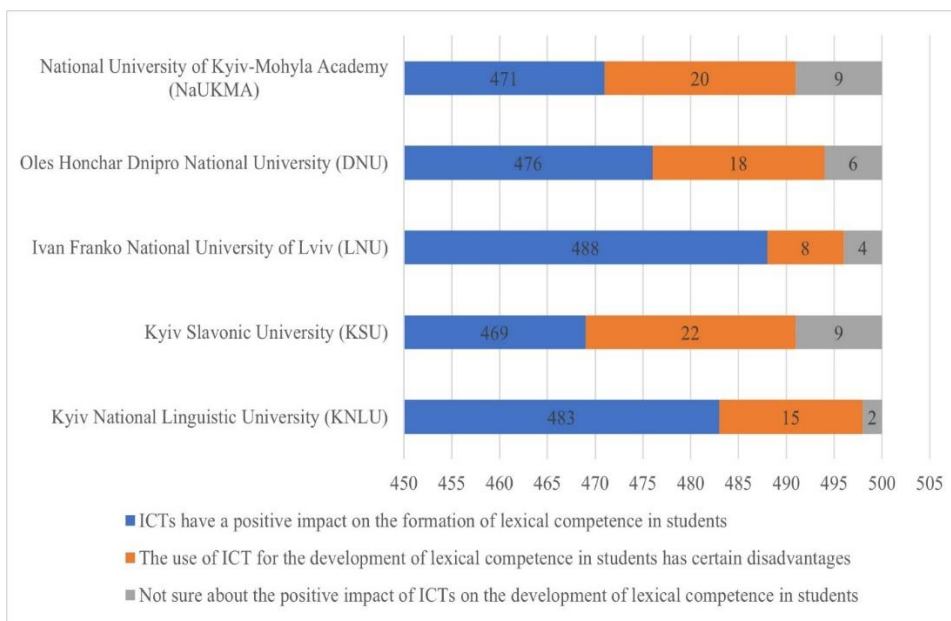


Figure 6 The dynamics of lexical competence formation in students in distance learning. Source: Compiled by the authors.

Figure 7 presents the outcomes of the lexical competence formation process among students participating in distance learning. This visual representation provides a detailed overview of the results achieved by students in terms of their lexical competence development.

The figure showcases various indicators and metrics that reflect the level of lexical competence attained by the students. These may include measures such as vocabulary size, accuracy in word usage, comprehension of lexical nuances, and ability to apply lexical knowledge in practical contexts. The results depicted in Figure 7 provide a comprehensive picture of the students' overall proficiency and progress in terms of lexical competence.

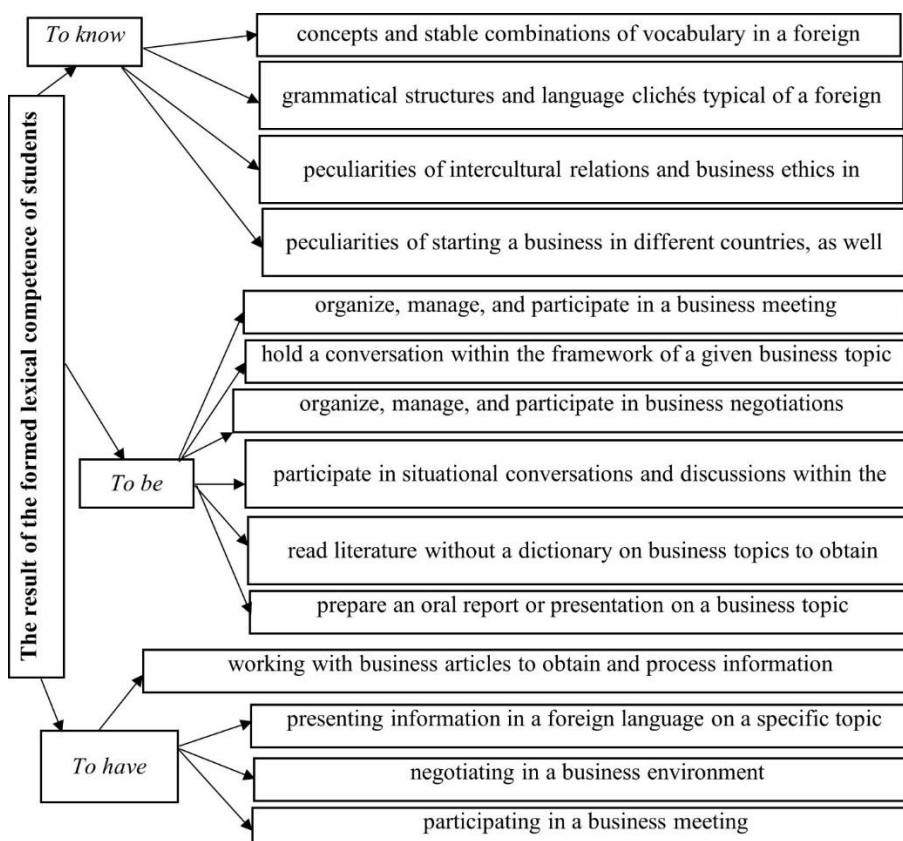


Figure 7 The result of the formation of lexical competence in students in distance learning. Source: Compiled by the authors.



4. Discussion

The results of the study of the formation of lexical competence in students in distance learning led to the following conclusions. Today, the educational process requires a combination of differentiated approaches to make learning effective and fruitful.

Firstly, studies reveal many advantages of distance learning, such as better results in information assimilation, an adaptation of the educational process to the needs of students, flexibility, student-centeredness, and elimination of barriers to independent learning of a foreign language (Babu Sridevi 2018).

Secondly, the survey has proven that the quality of the educational process in distance learning will ensure the formation of lexical competence in students. This will be possible if teachers use exercises to translate international words into Ukrainian; communicative exercises aimed at using the lexical material studied in speech and close to the natural process of communication; exercises to compare words with their definitions in Ukrainian or a foreign language, etc (Coman et al 2020).

The use of differentiated methods, tools, and techniques and their inclusion in the model of forming lexical competence in students in distance learning improves the quality of teaching material and increases the success of students, increases their motivation for learning activities, creates conditions for better interaction between the teacher and students (Czerkawski and Berti 2020, Savchuk et al 2019). According to the developed model of forming lexical competence in students in distance learning, the purpose and tasks of the formative stage were determined, which ensured the effective implementation of this model. Each of the stages - motivational and goal-oriented, activity-constructive and generalizing-reflective - contributed to the sustainable motivation and formation of lexical competence in students (Ogar 2021).

Thus, in the process of forming lexical competence in students in distance learning, teachers and students will face differentiated problems following changes in educational requirements for students. An in-depth study will lead to increased attention to improving the competency-based approach to the formation of lexical competence in students.

5. Conclusions

The analysis of the system for developing lexical competence in students engaged in distance learning has revealed the presence of several challenges that require specialized methodologies and research methods. The findings highlight the significance of the model for developing lexical competence in the distance learning environment, which emphasizes the active role of students as equal participants in the educational process.

The model aims to enhance students' lexical competence by focusing on various aspects such as intensive intellectual engagement, practical use of the target language in communication, enhancement of creative skills, and more. It has been established that the development of lexical competence in students relies on factors like motivation, reflective thinking, active engagement with vocabulary, possessing an adequate lexicon, and effective utilization of professional terminology. An essential element of students' lexical competence is the acquisition of lexical skills necessary for communication and proficient use of vocabulary across different types of speech activities.

The practical significance of this study lies in the application of the conclusions and recommendations in the process of fostering lexical competence in distance learning students. Additionally, it is important to consider the widespread adoption of competency-based approaches when designing new curriculum standards. Promising avenues for future research in this field include exploring foreign best practices in developing lexical competence in distance learning students. Further studies can focus on improving curricula by incorporating innovative methods aligned with competency-based approaches. This will invigorate the educational domain and enhance teaching practices in the realm of educational information technology, specifically for the development of lexical competence in students engaged in distance learning.

Ethical considerations

Not applicable.

Conflict of Interest

The authors declare no conflicts of interest.

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