



Формирование навыков понимания иноязычного текста у студентов вуза неязыковых направлений подготовки

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АННОТАЦИЯ

Введение. Время цифровых технологий предоставляет студентам широкие возможности для поиска и получения профессионально значимой информации. В связи с этим формирование прочных навыков понимания иноязычных текстов является важным критерием успешной профессиональной деятельности выпускников вузов. В условиях цифровизации образовательной среды в рамках компетентного подхода обучение чтению иноязычных текстов предполагает использование цифровых ресурсов, обладающих широким образовательным функционалом. В связи с этим *цель исследования* – выявить, какое влияние имеет использование цифровых ресурсов на формирование у студентов навыков понимания текстов на иностранном языке.

Материалы и методы. В исследовании принимали участие 92 студента второго курса бакалавриата Вятского государственного университета, обучающихся по направлениям подготовки «Биотехнология», «Химическая технология». Формирование навыков понимания иноязычных текстов предполагает обучение в цифровой среде платформ MS Teams and Moodle, где реализуются предтекстовый, текстовый и послетекстовый этапы обучения, включающие использование разработанной системы упражнений. Для статистической обработки результатов был использован критерий Пирсона χ^2 .

Результаты. Формирование навыков понимания иноязычных текстов с использованием цифровых ресурсов проходило предтекстовый, текстовый послетекстовый этапы. Для каждого из этих этапов были разработаны задания, позволяющие овладеть определёнными стратегиями чтения для извлечения информации из текстов. Результаты эксперимента показали, что количество студентов в экспериментальной группе с низким уровнем сформированности навыков понимания иноязычных текстов уменьшилось с 45.7% до 13.0%, со средним уровнем уменьшилось с 36.9% до 32.6%, с высоким уровнем увеличилось с 17.4% до 54.4% ($\chi^2 = 11.286$, $p \leq 0,05$).

Заключение. Значимость проведенного исследования заключается в использованном подходе к решению проблемы формирования навыков понимания иноязычных текстов, предполагающий обучение в цифровом пространстве платформ MS Teams and Moodle. Интеграция цифровых технологий в обучение студентов чтению иноязычных текстов позволяет повысить возможности традиционных форм обучения, автономность и мотивацию обучаемых к чтению иноязычных текстов в профессиональных целях, восполняет отсутствие языковой среды.

КЛЮЧЕВЫЕ СЛОВА

навыки понимания иноязычных текстов, стратегии чтения, MS Teams, Moodle, система упражнений

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Foreign language reading comprehension skills formation among university students of non-linguistic study fields

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ABSTRACT

Introduction. The age of digital technologies provides students with ample opportunities to search for and obtain professionally significant information. In this regard, the formation of strong foreign language reading comprehension skills is an important criterion for the successful professional activity of university graduates. In the context of digitalization of the educational environment within the framework of the competence-based approach, teaching reading foreign language texts involves the use of digital resources, which have a wide educational functionality. In this regard, the purpose of the study is to identify what impact the use of digital resources has on the formation of foreign language reading comprehension skills among students.

Materials and methods. The study involved 92 second-year undergraduate students of Vyatka State University, studying in the majors of “Biotechnology” and “Chemical Technology”. Foreign language reading comprehension skills formation involves training in the digital environment of the MS Teams and Moodle platforms, where pre-text, text and post-text stages of training are implemented, including the use of the developed system of exercises. For statistical processing of the results Pearson's chi-square test was used.

Results. Foreign language reading comprehension skills formation using digital resources went through pre-text, text and post-text stages. For each of these stages, reading exercise system was developed to master certain reading strategies for extracting information from the texts. The results of the experiment showed that the number of students in the experimental group with a low level of foreign language reading comprehension skills decreased from 45.7% to 13.0%, with an average level decreased from 36.9% to 32.6%, with a high level increased from 17.4% to 54.4% ($\chi^2 = 11.286$, $p \leq 0.05$).

Conclusion. The significance of the conducted research lies in the approach used to solve the problem of developing foreign language reading comprehension skills, which involves training in the digital space of the MS Teams and Moodle platforms. The integration of digital technologies in teaching students to read foreign language texts allows to increase the capabilities of traditional forms of training, autonomy and students' motivation to read foreign language texts for professional purposes, and compensates for the lack of a language environment.

KEYWORDS

reading comprehension skills, reading strategies, MS Teams, Moodle, exercise system for reading

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INTRODUCTION

In modern conditions of transformation, which implies the creation of a digital space, the countries' educational systems are moving to a new educational format. The UNESCO document "Transforming technical and vocational education and training for successful and just transitions: UNESCO strategy 2022-2029" emphasizes the importance of developing student skills for the digital economy and developing digital learning systems [25, p.19]. The development of new digital technologies has increased the volume of available information and knowledge and made it more accessible to more people around the world [21, p.23]. English is considered the main language in the era of globalization and digital technologies. In this regard, the formation of strong foreign language reading comprehension skills is an important condition for successful language acquisition. The era of digital technologies provides students with ample opportunities to search for and obtain professionally significant information. According to the 2009-2018 Programme for International Student Assessment (PISA) study, traditional reading of printed books, newspapers and other similar materials is lagging behind online reading via the World Wide Web and the Internet due to the significant increase in the use of technology among students around the world [24]. In the context of the globalization of the world community and the development of digital technologies, platforms and resources, the ability to obtain knowledge from various sources is becoming an important criterion for the successful professional activity of university graduates. In this regard, the ability to read and understand foreign texts is one of the main requirements for the level of modern specialist training.

In this regard, the urgent task of foreign language education at university is the formation of students' communicative and intercultural professional competence in the digital environment. One of the components of this competence is the ability to extract and analyze information from texts presented using digital resources. In addition, in the process of mastering the effective reading skills in a foreign language, not only the formation of students' competence in intercultural interaction occurs, but also the development of critical thinking, creativity, and personal qualities. The development of the above skills corresponds to the goal of the communicative approach to teaching a foreign language within the framework of the competency-based model of specialist training at a university. Thus, in order to achieve high academic goals, EFL students need to understand the content they read in digital or printed form.

The purpose of the article is to substantiate the necessity and possibility of using digital educational resources to develop effective foreign language reading comprehension skills among students.

MATERIALS AND METHODS

The purpose of our study was to identify the impact of using digital educational resources on the foreign language reading comprehension skills formation. The study involved 92 second-year undergraduate students of Vyatka State University (hereinafter VyatSU), studying in the majors of 19.03.01 "Biotechnology" and 18.03.01 "Chemical Technology". The study was conducted by the Department of Foreign Languages for Non-linguistic specialities.

To achieve this goal, the following tasks were solved: 1) to analyze the capabilities and features of modern digital educational resources from the point of view of their use for teaching students to understand texts in a foreign language; 2) to diagnose the initial level of foreign language reading comprehension skills formation among students studying in the majors of "Biotechnology" and "Chemical Technology" at Vyatka State University; 3) to conduct experimental training of students aimed at developing foreign language reading comprehension skills using digital educational resources; 4) to analyze the results obtained using mathematical statistics methods.

The following methods were used to solve the research problems: 1) theoretical analysis and generalization of psychological, pedagogical and methodological works on the problem of teaching students to read and understand in English using digital educational resources; 2) experimental teaching of students to understand foreign language texts using digital educational resources; 3) observation of students' learning activities during English classes where digital educational resources

were used; 4) Pearson's chi-square test to determine changes between experimental and control groups, analysis and generalization of quantitative and qualitative research results.

The study of the impact of using digital educational resources on the foreign language reading comprehension skills formation among university students was conducted during the 2023-2024 academic year. 98 students took part in the experiment.

The study involved three stages, each with its own tasks. The first stage task (2023) was to identify the object, subject, goal, objectives, research methods, and analyze psychological and pedagogical literature. The second stage task (2023-2024) was to carry out experimental training, and the third stage task (2024) was to analyze and summarize the obtained data.

LITERATURE REVIEW

The development and integration of innovative digital technologies into the educational space of the university are associated with a change in the methodological paradigm in the process of teaching foreign languages. According to A.A. Kytmanov et al., digitalization of the educational process is a mandatory stage of university development, without the implementation of which it is impossible to reach a qualitatively new level of educational activities [14, p.109]. The need to form an artificial language environment involves the use of various digital tools in the educational environment of the university [27, p.267]. Since the digital environment is an integral part of the professional activity sphere in the modern world, the specialist's professional qualities should include digital communication, intercultural, analytical skills and abilities. In this regard, the training of a future specialist at a university should be carried out with a perspective on the digital environment of activity.

Reading comprehension is considered the main goal of reading instruction. Reading is a complex cognitive process that involves interactions between the text, the reader, and the reader's prior knowledge outside the text. Extracting meaning from the text based on appropriate grammatical structures, common lexical phrases, typical lexical collocations, and using context is related to text comprehension. Reading comprehension has been defined by Van Dijk and Kintsch as the process of extrapolating meaning from a text. Its goal is to understand the text as a whole rather than inferring meaning from specific words or sentences [28, p.21]. Text comprehension has also been defined by I. Khan et al. as the reader's ability to construct meaning from a text [11, p.249]. According to W.P. Grabe and F.L. Stoller, reading comprehension results in a mental image of the text meaning in combination with the reader's previous knowledge [9]. According to A. K. Saqr, digital reading is the procedure of extracting meaning from a text stored in digital format on a PC or mobile device [22, p.62].

Unfortunately, students' reading comprehension remains poor. Many students have difficulty absorbing information and extracting the essence of what they read. Poor comprehension of foreign language texts can be caused by: poor decoding skills, which leads to misreading or skipping words; poor language processing skills - some students lose the meaning of a sentence when the syntax becomes more complex and have difficulty analyzing the different parts of a sentence; insufficient vocabulary; lack of active semantic processing of what they read. As noted by

Z. Gadusova et al., reading in a foreign language is a real challenge for students. Unlike reading in one's native language, reading in a foreign language requires knowledge of vocabulary, sentence structure, and intercultural aspects included in the text, which ultimately affects reading comprehension, speed, and fluency [8, p.299].

Currently, students have access to the latest research, articles, books only from digital devices, so in the educational process it is necessary to develop students' ability to read texts in digital format, relying on the advantages of digital text. According to T. Cobb, at present it is virtually impossible to avoid the integration of reading and technology [4, p.6].

Numerous publications of recent years reflect innovative approaches to teaching reading, understanding the relationships between elements of a foreign language text using digital technologies. In foreign scientific literature, the introduction of technological advances as teaching tools for language teaching is called Technology Enhanced Language Learning (TELL). The general

term TELL also includes other disciplines, such as Computer Assisted Language Learning (CALL), Mobile Assisted Language Learning (MALL), and Computer Mediated Communication (CMC) [17, p.353]. E. Bensalem argues that the skillful use of CALL tools by teachers for teaching reading produces positive results, since these systems facilitate interaction with texts, provide for different learning styles, and meet the differentiation requirements necessary to reach all students [2]. A computer assisted collaborative reading model was proposed by A. Omar et al. to increase the automaticity of various reading subskills so that such training could lead to the desired text comprehension and eliminate the problematic affective by-products of demotivation, negative attitudes, and low self-esteem [17, p.356].

There is an increasing number of scientific papers devoted to the use of mobile digital resources in foreign language learning, in particular in teaching reading. Thus, M. Khojah and M. Thomas investigated the impact of using MALL on the development of students' reading skills. The results showed a significant increase in students' reading performance, attention, participation, and voluntary expression of their opinions on what they read [12]. Growing interest in MALL and high-speed Internet has made podcasts and blogs more popular in foreign language learning.

The study by Z. Azizi et al. found that both podcasting and blogging are equally useful for developing and strengthening text comprehension among students studying a foreign language [1].

The development of technology has made it possible not only to use a computer directly in the classroom, but also to create cloud services that allow remote management of educational processes. X. Yu and Z. Huang, while studying the teaching of intensive reading in Japanese in college, created and used a network cloud platform for this purpose. The authors note that the mode of teaching intensive reading in Japanese in colleges and universities based on the intelligent cloud computing platform has a good teaching effect on intensive reading [31, p.14].

These results confirm the pedagogical potential of integrating interactive elements into digital reading materials. Such integration can promote active development of students' reading strategies and student-centered learning.

In the digital age, when reading foreign language texts using CALL, students use not only language skills but also higher order skills such as research, inquiry, analysis, synthesis and evaluation to extract meaning from what they read. In other words, the effective and efficient use of computer and internet technologies is considered necessary in reading-related processes. According to A. Bulut and M. Yildiz, texts that are transferred to electronic media, multimedia texts, hyperlinks, interactive texts, specially designed educational software provide students with the opportunity to benefit from technology in the reading comprehension process [3].

The process of reading comprehension involves various metacognitive skills of information semantic processing. Typically, this includes using prior knowledge, taking notes, guessing, summarizing, interpreting, establishing connections between paragraphs, finding themes and main ideas, and evaluating information. L.J. Zhang and A. Wu argue that research on the reading metacognitive aspects has indicated the need to increase readers' understanding of their metacognitive awareness of reading strategies, which facilitates the conscious use of reading strategies during the reading process and the extraction of maximum meaning from the text [32]. Basic metacognitive skills are transferred to reading in the digital environment, refracted in accordance with students' attitudes and goals.

In scientific and methodological literature, strategies for reading foreign-language texts are classified based on the communicative goals and the reader's objectives, which determine the necessary completeness and accuracy degree of understanding the material. In domestic scientific and methodological literature, this criterion formed the basis of the generally accepted reading types classification by S.K. Folomkina, which distinguishes between search, browsing, familiarization and study reading [7, p. 11]. In foreign scientific literature, based on available research, taking into account the nature of the reading process in a foreign language, general reading strategies for pre-reading, during-reading and post-reading are identified.

A. Bulut and M. Yildiz summarized and identified, in addition to general strategies, the use of various strategies and techniques for different purposes in the reading process, presented in foreign scientific and methodological literature: KWL strategy (know-want to know-learn); CTS strategy

(collaborative discussion inquiry); Reciprocal teaching strategy; Summarization strategy; Multiple passages strategy; PIOS strategy (prediction-investigation-summarization-organization-evaluation); DRTA strategy (directed reading thinking activity); SQ3R strategy (survey-question-read-recite-review) [3, p.4]. It seems possible to conclude that the above strategies include a whole range of tasks and actions aimed at metacognitive awareness of reading comprehension.

The analysis of the scientific and methodological literature revealed that one of the effective methods of teaching reading foreign language texts is Inquiry Based Teaching. According to B. D. Wale and K. S. Bishaw, this method is one of the active teaching methods that stimulates learning through research, involves students in making observations; asking questions; studying sources; collecting, analyzing, interpreting and synthesizing data; offering answers, explanations and predictions [29, p.2]. H-Yi Lee argues that the practice of teaching based on Inquiry Based Teaching is an excellent paradigm of the old saying "Tell me and I forget, show me and I remember, involve me and I understand." Such inquiry-based teaching is aimed at inspiring and developing higher levels of student learning by engaging them linguistically and cognitively [15, p.1243].

It is worth noting that with the advent of various digital platforms, teaching reading strategies has reached a new level: traditional forms of teaching have been revolutionized. Digital platforms offer technological and pedagogical tools for developing methods of teaching reading using web interaction channels, supporting educational activities. As noted by R. Kraveva et al. the main function of the software application called web-based learning management systems (LMS) is to provide a secure, reliable and flexible e-learning environment. Support for chats, forums, wikis and e-book libraries is also part of the current LMS specification [13, p.1190]. One of the most popular and widespread LMS are MS Teams and Moodle platforms, which have gained recognition from many foreign language teachers around the world. Thus, the results of the study by D. Duc and V. Hang, obtained from reading tests, questionnaires and follow-up interviews, showed that students were able to perceive their learning autonomy more positively and statistically significantly improve their reading comprehension ability after a course using MS Teams and Moodle platforms [6]. In her study, T. A. Pasaribu asked students to respond to the texts they read using digital infographics and presentation tools on the Moodle forum. The results of the study revealed that digital reading tasks promoted the learners' independence development. In addition, Moodle-based digital reading tasks allowed students to plan, implement, and evaluate their own learning [18]. In the study by

Y.-R. Tsai and P. C. Talley, reading strategy instruction was integrated into the Moodle system, which included reading exercises on problem identification, comprehension monitoring, inferencing, summarizing, and questioning for clarification. The results showed that Moodle-supported reading strategy instruction can and will promote reading comprehension [26]. According to T. Winchanpricha, online pedagogy can be skillfully integrated into regular face-to-face classes if special attention is paid to the suitability of technology and materials [30].

Based on new technological advances, Vyatka State University (hereinafter VyatSU) has implemented a program to provide students and teachers with electronic educational resources, introducing the Microsoft Teams platform (hereinafter MS Teams) and Moodle into the educational process. These digital platforms meet all the requirements for organizing a virtual classroom, such as communication and calls, screen sharing, assigning tasks to students, and providing feedback to students. In addition, on the MS Teams and Moodle platforms, students can work both during class time and independently, on a home computer with Internet access, as well as on mobile devices.

In the domestic methodology of teaching foreign languages, reading is considered as a means of forming professional communicative competence and acts as a necessary condition for successful professional activity of specialists in the future. In addition to professionally oriented texts used for study in educational and methodological literature, the use of authentic texts and materials taken from modern Internet resources is effective. As mentioned above, the goal of teaching reading as a type of speech activity is the development of foreign language reading strategies: study, search and viewing and familiarization, i.e. the ability to extract information in the required volume to solve a specific speech problem. An analysis of scientific and methodological literature has shown that to solve this problem in the practice of foreign and Russian educational institutions when working with texts, three main stages of working with the text are distinguished: pre-text, text and post-text stages. The sequence of organizing work with the text, including pre-text, text and post-text stages, is one of the main didactic conditions for teaching students to read foreign-language texts.

The pre-text stage is necessary to create the necessary level of motivation in students and reduce language and speech difficulties. At this stage, students are introduced to new terminology that can cause difficulties in perceiving the text, develop linguistic guesswork, and review lexical and grammatical material. Students can predict the content of the text based on the terms under consideration, the presence of tables, diagrams, statistical data, and also based on the title and subtitles of the text. In the process of predicting the content of the text, students activate their existing language and professional knowledge, as well as personal experience.

The text stage makes it possible to form and improve communicative competence and all its components, develops the ability to use reading strategies. Control of reading comprehension is carried out using a system of exercises developed by the teacher, or exercises generated by the digital platform. When working with electronic texts, the teacher and student are faced with such a characteristic of the electronic text as hypertextuality, i.e. such a text structure that contains not only text, but also audio and video fragments connected by links with the text logic.

The post-text stage allows using the text as a linguistic, speech and content support for developing oral and written speech skills. At this stage, students can express their opinions about what they have read, participate in discussions, critically evaluate their classmates' answers, and discover new meanings in the text.

The use of digital resources also affects the organizational forms of teaching students to read foreign-language texts. The organizational aspect of such training involves various forms of pedagogical interaction in the process of teaching students to read foreign-language texts. The operation mode characterizes such forms of training as teacher - students, student - student, teacher - student, student's independent work. In addition, the organizational aspect of teaching reading foreign-language texts involves the use of group, training interactive forms, the organization of students' independent work. The procedural aspect is associated with the stage-by-stage process of teaching reading foreign-language texts, which allows organizing training on the principle from simple to complex.

The analysis of psychological and pedagogical literature on the use of digital resources in the process of teaching students to read foreign language texts made it possible to identify psychological and pedagogical conditions for the formation of foreign language reading skills: 1) students' motivation to read foreign language texts in a digital environment, which contributes to the implementation of their needs for mastering a foreign language, both for personal and professional purposes; 2) designing various forms of synchronous and asynchronous interaction of the parties to the educational process in the online environment, which contributes to the targeted creation of specific information and educational environments of education; 3) possession of information and computer competencies by all participants in the educational process; 4) designing training stages with the inclusion of a exercise system based on digital resources aimed at developing skills in reading foreign language texts.

Thus, in modern conditions, teaching students to read foreign language texts using digital resources is a holistic process developed in the paradigm of online pedagogy, ensuring the formation of general cultural and general professional competencies.

RESULTS

Ascertaining stage

At the stage of the ascertaining experiment, a primary diagnosis of 1st-year Biotechnology (03.19.01) and Chemical Technology (03.18.01) students was carried out at Vyatka State University. The experiment involved an experimental and a control group, a total of 92 students. The purpose of the primary diagnosis was to identify the students' initial level of foreign language reading comprehension skills formation while studying the discipline "Foreign Language" using a diagnostic test.

The test task included reading the text "Are you getting enough sleep?" from the Select Readings textbook published by Oxford University Press. The text was given as part of the conversational topic "My Working Day". Pre-text work with students was not carried out. Students were asked to carry

out skimming reading – i.e. preliminary reading, on the basis of which the general content of the text is determined, an idea of the material being read is formed. After the first reading of the text, the students were offered the following tasks to understand the main information of the text in the form of multiple choice of answer options: determining the topic of the text, restoring the chronological sequence of events, True/False tasks. Then, the students were given tasks typical for studying and searching reading. After rereading the text, students were offered multiple choice tasks: answers to questions aimed at finding specific information; detailed answers to questions that require understanding of cause-and-effect relationships and the logic of the text; questions to formulate conclusions from what was read. Thus, students were offered a total of 10 tasks: three tasks for skimming, three tasks to find specific information (details) in the text, two tasks to establish a cause-and-effect relationship and logic, and two tasks to formulate conclusions.

The level of students' foreign language reading skills formation was determined based on the descriptors of the levels of text comprehension of the European Framework of Reference for Languages [5, p.56] and was assessed in points. All correctly completed tasks were assessed with 10 points. Depending on the points scored, a conventional designation of the levels of development of foreign language reading skills was adopted: 10-9 points corresponds to a high level, 8-7 points corresponds to an average level, 6-5 points - to a low level, below 5 points means that the student did not cope with the tasks. The results of the ascertaining experiment are presented in Table 1.

Table 1

Initial level of foreign language reading comprehension skills formation

Number of students	Experimental group					
	Low		Average		High	
	Number of students	%	Number of students	%	Number of students	%
46	21	45,7	17	36,9	8	17,4
	Control group					
	Low		Average		High	
	Number of students	%	Number of students	%	Number of students	%
46	19	41,3	20	43,5	7	15,2

The data in Table 1 show that before participating in the experimental training, all students completed the task and showed almost similar results in the levels of foreign language reading comprehension skills formation. In addition, the ascertaining experiment showed that the students completed the tasks proposed for skimming, i.e., determining the main idea of the text, restoring the chronological sequence of events, True/False tasks, best of all, but experienced significant difficulties with tasks to identify cause-and-effect relationships in the text, as well as to formulate conclusions on the text read. Based on the results of the ascertaining experiment, it was concluded that the students had insufficiently developed skills for navigating the logical and semantic structure of the text, and also revealed a weak mastery of strategies for reading foreign-language texts, and weak recognition of language patterns. Thus, the ascertaining experiment proved the need to include innovative technologies in the process of teaching reading, namely, the use of digital resources, so that the results of student training meet the modern requirements of future specialists' professional training.

Formative stage

At the formative stage of the experiment, students of the experimental group while studying the discipline "Foreign Language" were given texts that were correlated with the topics of the work programs. In addition, when selecting texts, the interests and requests of students were taken into account in order to motivate students to read foreign-language texts. One of the didactic conditions of the experimental training was the use of e-learning platforms MS Teams and Moodle with a developed system of exercises. The purpose of the experimental training was to develop students' foreign language reading comprehension skills while studying the discipline "Foreign Language". The

objectives of the experimental training were to teach students to use various strategies for reading foreign-language texts; to motivate students to read texts in a digital environment in English on a variety of topics, including professional topics. Students were taught to read texts in English both in the classroom and outside the classroom on the MS Teams and Moodle platforms. The experimental training took place within one semester.

An analysis of psychological and pedagogical literature has shown that the methodology for developing skills and abilities in reading foreign-language texts in the online space does not conflict with the traditional methodology. The principle of "from simple to complex" and the principle of step-by-step are also observed here. The Moodle platform has a variety of tools for creating various pre-text, text and post-text exercises. From the proposed exercises, the teacher can choose exercises in accordance with the level of students' training, the type of text and technical capabilities. In addition, the perception of the text can be improved with the help of audio, which can be included in the work with the text. Also, modern computer technologies allow you to convert any source text into an audio file.

In foreign literature, there are two main approaches to teaching reading in a foreign language – top-down and bottom-up approach, which differ in what is the basis for understanding a foreign-language text. In our study on teaching students foreign language reading comprehension skills, we followed the top-down approach, which assumes that understanding of the text is in the reader. The reader uses background knowledge, makes predictions and searches the text to confirm or refute the predictions made [10].

At the pre-text stage, work with the text began with teaching students to navigate the text, i.e. first, they need to understand the structure of the text, and then its meaning. For this purpose, students were offered skimming reading of the texts located on the Moodle platform with subsequent completion of the tasks. Thus, in the process of studying the topic "Volunteering", students were given the task to read the text "Helping Others" on the Moodle platform in synchronous mode and complete the following tasks: read the title, predict the content of the text based on the title, highlight the keywords, make an assumption about the development of the text theme, divide the text into compositional parts, highlight the structural and semantic blocks. Next, lexical difficulties of the texts were removed. For this purpose, the students independently completed exercises with the choice of one correct answer. For example, after re-reading the text "Helping Others", students were asked to complete the following tasks on the Moodle platform in asynchronous mode: match the words with their definitions ("staff", "appreciate", "keep in touch", "valuable", "unaccustomed"); find equivalents for the words "decent housing", "affluent", "on the site", "sense of fulfillment", "assigned to"; find synonyms for the words "generously", "offer space and hearts", "involved", "message of the text", "make a difference".

The next stage of learning to understand foreign-language texts is associated with intensive reading, and in the teaching methodology it refers to the text stage. Intensive reading involves the most complete and accurate understanding of all the information contained in the text and its critical comprehension. [16, p. 217]. At the text stage, a semantic analysis of the text occurs, where it is necessary to determine the connections between individual facts and events, the logic of the text, interpret what has been read, transform the sentence in order to highlight the main points, summarize the main facts and events. For example, as part of studying the topics "Everyday use of media", "Environment", "Healthy Lifestyle", "Technological Progress", "Science and Research", students were offered the texts, after reading of which they completed the tasks on the Moodle platform, where tasks were generated using the tools "Drag and drop into text" to put the sentences into correct order, "True / False" to determine whether the sentences correspond to the content of the text or not, "Short answer" to select a word that matches the context of the text. After that students were offered some assignments in the form of multiple-choice tests on the MS Teams platform for homework: to choose the right sentence in accordance with the content of the text, to translate the sentences into their native language taking into account certain grammatical phenomena, to complete the sentences in accordance with the content of the text, and to draw conclusions. At this stage, students actively use online dictionaries and glossaries, which significantly expands students' vocabulary.

At the post-text stage, we included exploratory reading, the purpose of which is to find the necessary information, requiring students to navigate the logical and semantic structure of the text.

To practice this skill, tasks generated by the "Embedded answers (Cloze) questions" tools were used on LMS Moodle. Thus, students were offered passages from texts on the topics "My future profession", "Research in the field of natural sciences", which had various answers embedded in it, including short answers, answers with numbers, and multiple choice. Students needed to read the passages and write the missing words from the text in the blank spaces. In addition, the post-text stage allows to use the text as a linguistic, speech, and content support for developing oral and written speech skills. In this regard, students were asked to answer questions using their own judgments; write a short message on the text using key words; express their agreement or disagreement with the author's point of view. For example, while working with the text "GM Food", students were asked to choose a product and tell what qualities they would like to give this product using genetic engineering. After working with the text "3D Lab Animal Simulators", students were divided into 2 groups for discussion in meeting rooms on the MS Teams platform, one group was asked to prepare questions for discussing the problem of using animals for laboratory research, the second group – to give arguments for and against this problem.

The developed system of exercises for teaching students to read foreign-language texts using digital resources was aimed at developing skills related to searching, evaluating, interpreting information and semantic processing of texts.

At the formative stage of the experiment, control group students were taught to read foreign-language texts according to the program approved by the university using traditional methods of teaching reading.

Control stage

After the experimental training students using digital resources, a re-diagnosis of the foreign language reading comprehension skills formation was carried out. The results of the control experiment are presented in comparative table 2.

Table 2

Achieved level of foreign language reading comprehension skills formation

Number of students	Experimental group					
	Low		Average		High	
	Number of students	%	Number of students	%	Number of students	%
46	6	13,0	15	32,6	25	54,4
	Control group					
	Low		Average		High	
	Number of students	%	Number of students	%	Number of students	%
46	15	32,6	21	45,7	10	21,7

The result comparison of the ascertaining and control experiments shows an increase in the level of foreign language reading comprehension skills formation among all students, despite the fact that the control group did not undergo experimental training. The number of students in the experimental group with a low level of foreign language reading comprehension skills significantly decreased from 45.7% to 13%, i.e. by 32.7 percentage points. At the same time, the number of students with an average level slightly decreased from 36.9% to 32.6%, i.e. by 4.3 percentage points. The number of students with a high level significantly increased from 17.4% to 54.4%, i.e. by 37 percentage points.

In the control group, the number of students with a low level of foreign language reading comprehension skills decreased from 41.3% to 32.6%, i.e. by 8.7 percentage points, while the number of students with an average level slightly increased from 43.5% to 45.7%. i.e. by 2.2 percentage points. The number of students with a high level increased from 15.2% to 21.7%, i.e. by 6.5 percentage points.

The presence of statistically significant differences in the indicators of the experimental group and the control group at the ascertaining stage and at the control stage of the experiment is confirmed by Pearson's chi-square test, which can be found using the calculator [19].

The critical values of the χ^2 statistic at the significance level of $\alpha=0.05$ and $\alpha=0.01$ are $\chi^2_{cr}= 5.99$ and $\chi^2_{cr}= 9.21$, respectively. The calculated value of the statistic at the beginning of the experiment was $\chi^2_{emp}= 0.410$, which does not exceed the critical values, and at the end of the experiment $\chi^2_{emp}= 11.286$, which is higher than the critical values of the statistic. This allows us to state with a probability of at least 95% that at the beginning of the experiment the control and experimental groups were statistically indistinguishable in the level of foreign language reading comprehension skills formation, while at the end of the experiment these differences became significant. In addition, a comparison of the indicators in the control group at the beginning and end of the experiment gives $\chi^2_{exp}=1.024$, which indicates insignificant changes in the foreign language reading comprehension skills formation, while in the experimental group $\chi^2_{exp}=17.218$, which indicates significant changes in the indicators under study. These calculations indicate the effectiveness of the method we propose.

The experimental data showed that during the semester of training, students managed to develop foreign language reading comprehension skills using digital resources at a statistically significant level. It is worth noting that the level of reading skills increased not only in the experimental group, but also in the control group. This indicates that traditional methods of teaching foreign-language reading have not lost their significance.

DISCUSSION

The analysis of the experimental training results revealed positive dynamics of using digital resources to develop foreign language reading comprehension skills among non-linguistic students. The results of our study showed that the use of digital resources with a developed system of exercises aimed at teaching foreign language reading comprehension is an important component of the educational process at the university. It ensures the students' involvement in the educational process, provides quick access to information for both students and teachers through discussion groups, chats, provides prompt feedback and assessment.

The conducted research confirms the findings of the study by E. Satriani et al. [23] that teaching effective reading skills on a digital platform should be implemented in stages, starting with motivating students to use digital resources in teaching foreign language reading, and that such teaching is effective and practical in all aspects of assessment. Following B. Radia [20], we came to the conclusion that blended learning, which harmoniously combines traditional and online learning, offers a learning style that students prefer, as it gives students autonomy and freedom of learning. Furthermore, following D. Duc and V. Hang [6], we argue that autonomy in reading instruction on MS Teams and Moodle platforms provides learners with more opportunities to set learning goals, make learning decisions, and take responsibility for their learning. Our findings are consistent with A. Omar [17] assertion that computer-assisted learning is particularly useful in teaching reading comprehension due to its flexible nature and potential to provide personalized reading instruction that meets learners' diverse needs and pace. This statement is especially relevant for student independent work while working with foreign language texts. At the same time, we came to the conclusion that in the created joint interactive environment with the help of digital resources, students can achieve a higher level of reading comprehension if they are involved in joint learning activities.

With regard to teaching reading strategies and comprehension, our results support the conclusion of H. Ismail et al. [10] that in a top-down approach to reading instruction, the teacher should focus on meaning-generating activities rather than on students' acquisition of word recognition. In addition, the participants in the experiment saw a difference between test-taking strategies and comprehension-testing exercises, where the latter promotes a deeper understanding of the meaning of the text. In this regard, we confirm the conclusion of L. J. Zhang and A. Wu [32] that the "comprehension exercise plus strategy evaluation" teaching method should be included in the reading instruction process so that students can expand their awareness of strategies and their use through reflection and subsequently achieve a higher degree of autonomy in using these reading strategies in different contexts.

The experience of teaching students to understand foreign-language texts in the digital space has shown that such training requires careful methodological preparation from the teacher, the selection of the necessary functional capabilities of digital resources for teaching reading, as well as the improvement of the information and computer competence of the participants in the educational process.

CONCLUSION

Currently, digital technologies provide students with ample opportunities to search for and obtain professionally significant information. In this regard, the formation of foreign language reading comprehension skills is an important condition for successful language acquisition. Our study presents an approach to solving the problem of developing foreign language reading comprehension skills, which involves teaching students using digital resources. The integration of digital technologies in teaching students to read foreign-language texts creates new auxiliary tools and allows to increase the capabilities of traditional forms of teaching reading. Provided that the texts are carefully selected and the training is effectively organized, the use of authentic online texts allows students to extract information from the text in the volume that is intended to solve a specific reading task, using certain reading technologies, and also increases the students' motivation to read foreign-language texts for professional purposes and interest in personal and professional growth. At the same time, a deeper understanding and study of new formats of educational interaction, teacher competencies in the digital educational environment, technologies for integrating traditional and electronic environments are required.

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