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Peculiarities of using virtual whiteboards to form the professional competence of future lawyers in foreign language classes at university

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Abstract. *Problem statement.* The focuses of the current digital intercultural learning environment as training programs for professionals in the legal industry specify their developing of systemic foreign language communication skills, skills to analyze which can be based on information technologies and actualized in rapidly changing professional tasks. The study is aimed at substantiating the effectiveness of using virtual whiteboards to form the professional competence of future lawyers in foreign language classes at university. *Methodology.* The analysis of theory and methodology, generalization of crucial scientific papers on the studied problem, processing of results and creating interactive whiteboards are applied. The pedagogical experiment involved 97 students (girls – 48%, boys – 52%) of the Law Institute of Vyatka State University. Fisher's criterion (angular transformation) is used as a statistical processing method. *Results.* The didactic peculiarities of making use of virtual whiteboards when forming professional and legal competence of a professional in the legal industry during foreign language classes are stated: the capabilities of network intercultural cooperation when solving tasks in the legal industry; seeking legal assistance; foreign language communication; virtual discussion of criminal acts; independence of the interactive network environment for modeling legal processes; keeping the results in a cloud. At the control stage of the experiment, statistically significant differences between the levels of formed competences of the participants of the experimental and control groups were revealed. *Conclusion.* Making use of whiteboards will contribute to the formation of foreign language and professional legal competences of a specialist while providing a set of circumstances: active work with foreign regulatory acts in English, showing students new intercultural information collaboration and legal consultancy, combining different types of work, organizing foreign language feedback, solving real practical legal tasks.

Keywords: interactivity, network resource, competence, foreign language, legal training, intercultural joint activity, quality of education

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Особенности использования виртуальных досок для формирования профессиональной компетентности будущих юристов на занятиях по иностранному языку в вузе

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Аннотация. *Постановка проблемы.* В качестве направления подготовки профессионалов в сфере юриспруденции выделяется получение ими навыков иноязычной коммуникативной деятельности с использованием ИТ-технологий в условиях смены поставленных задач. Цель исследования – доказать эффективность использования виртуальных досок для формирования профессиональной компетентности будущих специалистов-юристов на занятиях по иностранному языку в вузе. *Методология.* Применялся теоретический и методологический анализ, обобщены научные работы по теме исследования, обработке результатов тестирования и наполнению интерактивных досок. В эксперименте принимали участие 97 студентов (девушки – 48 %, юноши – 52 %) Юридического института Вятского государственного университета. Критерий Фишера использован в качестве метода статистической обработки. *Результаты.* Представлены педагогические особенности применения виртуальных досок для формирования профессионально-правовой компетентности профессионала в сфере юриспруденции на занятиях по иностранному языку: возможности сетевого межкультурного сотрудничества при решении юридических задач; обращение за правовой помощью; иноязычная коммуникация; виртуальное обсуждение; независимость интерактивной сетевой среды для моделирования правовых процессов; сохранение результатов в облачном сервисе в виде портфолио юриста. Выявлены статистически достоверные различия между экспериментальной и контрольной группами по уровню сформированности компетентностей будущего профессионала. *Заключение.* Применение виртуальных досок содействует формированию иноязычной коммуникативной и профессиональной компетентности профессионала при выполнении следующих условий: активная работа с правовыми нормативными актами на иностранном языке, знакомство обучающихся с межкультурным информационным взаимодействием и правовым консультированием, сочетание разных форм работы (индивидуальная, командная), поддержка иноязычной обратной связи, решение реальных правовых задач.

Ключевые слова: интерактивность, сетевой ресурс, компетенция, иноязычная правовая подготовка, межкультурная совместная деятельность, качество обучения

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Problem statement. The modern strategy of UNESCO's activities is focused on the goals and specific tasks of education, science, culture, communication and information, agreed at the international level, and is based on the principles of the Universal Declaration of Human Rights [1]. One of the features of teaching legal disciplines is that the applied technologies and teaching tools should be focused on skills of a professional that make up the foundation of his/her professional competence. However, the developing digital society defines active use of modern electronic resources, interactive tools, educational software services being a part of the study of various disciplines (including foreign language classes) as the most important labor function of a teacher in the process of preparation of graduates who are high-demand in the world of work [2]. This also can be said about the training of highly qualified professionals in the legal industry [3].

Moreover, using interactive technologies when teaching a foreign language should be not just a response to the requirements of digitalization and automation of society or a way to involve students in foreign language cognitive activities by increasing the emotional attractiveness of the disciplines of the legal cycle. The main purpose of including digital tools and innovative methods in legal education, according to K. Mania, is to develop of logical thinking, improve the level of legal training of graduates and the quality of educational results in general [4].

Ideally, the foreign-language virtual educational environment which is being formed should accompany the intercultural, research activities of students, the solution of practice-oriented problems of a legal nature, joint work, socialization, modeling of future professional situations, etc. In this regard, not only the study of the possibilities of digital opportunities when learning a foreign language, but also the rationale for their importance for the formation of general professional, professional, professionally specialized competencies are currently underway [5]. Thus, a professional in the legal industry should not only passively perceive, know legal terminology, international legal norms, phenomena and relations that are objects of professional activity, but also be able to analyze them, apply them in foreign language communication with the support of modern digital technologies.¹

In practice, as E.V. Ionova [6] notes, the use of electronic services and information resources during courses of the legal cycle is largely unsystematic and is perceived by teachers as a necessity. This situation, according to S. Bhushan [7], significantly reduces the potential of interactive technologies. The use of digital tools in foreign language learning should be accompanied by a systematic analysis of the results; intensification of feedback from students (completed tasks, reports, abstracts, answers to questions) and take into account the specifics of professional activity [8].

In terms of functionality an interactive board is considered to be a modern and impactful service for learning legal disciplines in the digital educational environment, for getting teamwork skills, developing logical thinking, raising the level of legal education and the quality of foreign language teaching. This digital resource, as noted by D. Khan, I. Rehman, S. Ullah, W. Ahmad, Z. Cheng, G. Ja-

¹ Kovalchuk NV, Shcherbakova IV. *Practical English course in the field of jurisprudence: textbook*. Moscow: Direkt-Media; 2022. (In Russ.) <http://doi.org/10.23681/689999>

been, H. Kato [9], allows you to maximize all the didactic opportunities that interactive technologies provide for legal education.

The analysis of the above scientific papers makes it possible to state that there is a problem connected with the necessity to research how virtual whiteboards can be used to form the professional competence of future lawyers during foreign language classes at a university.

The aim of the study is to substantiate the effectiveness of using virtual whiteboards in foreign language teaching for the formation of professional legal competence of a professional in the legal industry.

Methodology. The main provisions of the competency-based approach are viewed as the methodological basis for the study of aspects of the use of interactive technologies and digital tools in the professional training of lawyers. These provisions make it possible to take into account the shift in the focuses of the current intercultural educational environment towards the training of professionals in the legal industry (capable of critical assessment and system analysis, application of innovations, joint foreign language project activities, work in conditions of high uncertainty and rapid change of professional tasks). Each of the described training requirements corresponds to the qualification characteristics and activities of a lawyer in the implementation of legal norms and ensuring law and order in various spheres of society.

Practice-oriented approach supports the choice of areas for using interactive sticker boards in solving a range of professional tasks of a legal nature (law-making, law enforcement, expert and consulting; law enforcement; organizational and managerial; research tasks). The ideas of a communicative approach for organizing informational intercultural interaction are applied and developed:

- when determining types of foreign language activities of network interaction participants supported by the research tool – the “virtual sticker board” service (hypothesis, collection of facts, search for arguments and relevant legal norms, changing conditions, compiling a portfolio, etc.);
- to describe features of introducing the existing functionality of virtual sticker boards in the teaching of legal disciplines and foreign language communication (tags, multimedia, teamwork, graphical interface, etc.).

The student/group (on the basis of professional aspirations, cognitive interests) independently chooses contents of the virtual environment of interaction; speed, pace of work, tools for presenting information on the board; problem solving logic.

Empirical methods (observation, analysis of solutions to problematic situations of foreign language communication and legal tasks, team projects) were used to get information on the quality of understanding legal terms, methods for conducting legal expertise, formalizing research results. The experimental verification was carried out during the course “Foreign Language” and “Criminal Law” for the training program (40.05.01. Legal support of national security (specialist level)) at the Law Institute of Vyatka State University. Second- and third-year-students took part in the study, whose average age was 21. In total, 97 students participated in the experiment (52% of boys and 48% of girls).

When developing virtual sticker boards, the network resource linoit.com was used, which represents tools for team and individual work in full-time and

distance learning to solve problems of scientific research, applied and professional nature. Fisher's angular transformation was used as a statistical processing method.

Results and discussion. In the modern intercultural digital space, by note E.V. Soboleva, T.N. Suvorova, A.V. Grinshkun, M.M. Nimatulaev, a lot of virtual environments supporting a foreign educational and cognitive process for any direction of training are used [10]. An analysis of various aspects of their use and inclusion in the teaching of legal disciplines allows us to formulate the following characteristics: a joint space for interaction, forming hypotheses, version testing, and solution of socially significant issues; graphical user interface to support system analysis, display logic and sequence of events; efficiency in obtaining feedback and necessary materials; the ability to select, develop the content of the academic discipline for the individual characteristics of students and the specifics of training [11]; independence of the virtual learning environment from the presence/absence of certain involved participants of the legal process (for example, modeling the work of a virtual trial) [12]; support for the formation of social groups, small teams to solve the problem [13].

Virtual whiteboards allow implementing most of the specified characteristics of virtual interactive environments for teaching a foreign language and legal disciplines, to support the professional competence formation of a professional in the legal industry when using a foreign language, and to increase the quality of educational results. These possibilities are revealed in the work of M.S. Ivshin, S.A. Yurkov [14]. Currently, the concept of “virtual whiteboard” refers to a digital resource that allows you to organize network interaction without direct contact with a real installation. This cloud service does not require special technical skills and resource costs from the teacher [15].

The next features of using an interactive whiteboard were found out:

1. The possibility to show presentations and do different tasks simultaneously: to fill up words, to match the defined word with its definition, to find out a logical order of actions. The teacher can highlight important information using graphics so that the students pay more attention.

2. The possibility of highlighting in the text when working on an interactive whiteboard is of particular importance. If talking about law classes within the digital educational space it is necessary to organize work with written sources of legislative acts in order to acquire the skills of intercultural collaboration. Doing such individual tasks often brings difficulties and can seem boring to students. It is possible to study law acts using interactive whiteboards. Law acts can be presented on the board and important information can be highlighted.

3. “Opaque screen” function of the whiteboard makes it possible to study concepts and dates, check answers quickly. The passive use of the interactive whiteboard is to show slides, videos, Internet links, etc.

4. The active use of the interactive whiteboard is “Electronic Pen” function and “Drag and Drop” function.

During the experiment were used 7 groups of tasks: “Mark”, “Fill in the gap”, “Puzzle”, “Historical personalities”, “Work with drawings”, “Match”, “Find in chronological order”, “Checking”, “Diagrams and tables”.

Assessment of the level of foreign language knowledge and knowledge of legal terms, skills when solving practice-oriented tasks, and working with information resources in a foreign language was carried out at the preparatory stage of the experiment.

As part of the control activity, students were asked to perform testing on the topics of “Foreign Language” and “Criminal Law”. The test questions were developed by the authors in accordance with the types of professional activities of a graduate of the specialty 40.05.01 Legal support of national security: law-making, law enforcement, expert consulting, law enforcement, organizational and managerial, research, pedagogical. There were 10 tasks for each type of activity, in total 70 tasks were selected for testing. Let us give examples of questions.

1. In the first column there is a set of concepts “criminal law”, “criminal procedural law”, “administrative law”. The second column contains the same number of definitions, from which students should choose the appropriate term for the first one. A variant of completing the task may be a situation where an excessive number of definitions will be presented. The text of the task is presented in a foreign language.

2. From the proposed electronic resources with information in a foreign language, students need to choose those that relate, respectively, to the examples of sites of the judiciary, law enforcement agencies, educational sites on jurisprudence.

3. It is known that offenders Volgin, Kamazov and Opelev stole a car from a shopping center parking lot in 2019. They stole: Volga, Kamaz, and Opel. None of the men stole the car from which his last name was derived. Determine which of the cars each of them stole, if it is definitely established that it was not Kamaz that Opelev stole.

4. To determine a specific rule of law and the form of implementation of criminal liability for an example of judicial practice. Examples are presented in a foreign language.

5. A set of characters A, B, C, D is given. Each character is assigned a phrase in a foreign language that describes the crime. It is necessary to arrange the symbols so that a logical chain that reveals the essence of the matter is lined up. The result should be presented in Russian and English.

6. Define legal norms, relations, phenomena in accordance with the described professional situations. Professional situations are described in a foreign language.

7. From the proposed examples, choose those that reflect the essence of legal propaganda. Examples are presented in a foreign language.

8. You have 25 specialists working with Internet sources. How many control checks do you need to arrange to determine the three of them who are the fastest? You can't use a stopwatch. Only five specialists can participate in each test.

For the finished test the participant got “credit” if he/she had more than 60 points. If the score was less than 60, it was supposed that the participant failed. So, data on 97 students was collected, from which two groups, the experimental (48 students) and control (49 students), were formed. It was not random. There were 52% of boys and 48% of girls in the experimental group.

At the next stage of the experiment the teacher carried out some methodical work with all students of the experimental group on the possibilities of using vir-

tual sticker boards to organize the study of the chosen discipline. Students were offered topics for joint foreign language work, individual tasks. The formation of teams and the choice of topics were determined by the professional aspirations of students and their cognitive interests. Sample topics: “International Cyber-crime”, “Crime and Punishment in World Jurisprudence”, “History of the Development of Criminal Legislation in Russia and the World”, etc.

Talking about the interactive whiteboard in the present study, we mean an endless educational online space that can be adjusted to intercultural interaction and the logic of solving a professional practice-oriented task. In this intercultural virtual space, you can take notes, leave comments, ask questions, put down tags; insert photos, videos, sound files, stickers. Interactive sticker boards contribute to the intensification of cognitive activity; support both the personalization of learning and joint activities. Today there is a huge selection of software tools for organizing such a virtual space (Linoit, WikiWall, Rizzoma, Scribblar, Popplet, Twiddla).

The practical implementation of these didactic capabilities of interactive sticker boards was carried out as part of the course “Foreign Language” and “Criminal Law (General Part)” for the specialty 40.05.01. Legal support for national security. When developing virtual sticker boards, the network resource linoit.com was used. It represents tools for team and individual work in full-time and distance learning, for solving problems of scientific research, applied and professional nature.

The possibilities of foreign network virtual interaction were used to solve specific legal problems. With the help of a sticker the teacher defined the problem (thesis or reference to the case materials). Information was provided to students in a foreign language. Further, each team member chose a “zone for reflection”, where he placed facts, assumptions, arguments, versions, hypotheses. Students marked them with tags in order not to confuse their materials with the works of others. In addition, the team could ask for help from a teacher/other specialist, who also marked his consultation with a tag, at any time during a foreign-language online discussion. Arrows, callouts, photographs were added to the reasoning. Then, during a virtual brainstorming session, the team determined the general logic and built a reasoned version with an evidence base (supported by legal norms and acts, facts, examples of judicial practice). The capabilities of the graphical user interface were actively used, which included the inclusion of 2D and 3D objects, manipulation (deletion, moving), multicolor palettes, fonts.

The efficiency of obtaining feedback in a foreign language was most valuable in cases where it was not just necessary to consult on the application of a legal norm, but to decide on the legality of applying a legal norm. The potential of sticker boards for teaching a foreign language, individualization of learning was realized through choosing the theme of the project by students and the team for joint work; pace and trajectory of knowledge; options for presenting information on the board; the use of information resources and the need to seek advice.

The independence of the virtual environment also supports foreign language personalized learning, since the absence/presence of other participants does not affect the quality of work of an individual member of the team. And the same di-

dactic opportunity made it possible to model various legal situations: forensic examination, law enforcement, crime prevention, etc.

The possibility of intercultural network collaboration, participation in joint foreign language activities made it possible to gain practice in identifying and preventing security threats; gain experience of collective work on the development and implementation of preventive measures for the prevention and investigation of crimes. In addition, all the results of applied scientific research were stored in a cloud-based service.

An example of a task for the students of the experimental group:

To find out who committed the theft, follow these instructions using operations on text fragments. Rearrange the fragments in the required order. Delete all instructions and their numbers in the text.

A. But in the morning, Richard Brody discovered that someone (1) his program, there were no evidences of theft. The programmer realized that (2) and he would again be left with nothing. Copy to the appropriate position: 1 – “stole”, 2 – “everything is gone”.

B. Richard was scared, but after a couple of minutes he came up with a plan. He remembered that the caller had a knock of (3) in the background. Then a picture formed in Richard Brody’s head, he remembered that there was a flagpole just opposite (4). Copy to the appropriate position: 3 – “flagpole weighting”; 4 – “competitor company”.

C. The next day Richard Brody put the program up for sale, but his program (6). The reason was the release of a competitor program (5). Richard was very upset, his work was not appreciated. Copy to the appropriate position: 5 – “WordPerfect”; 6 – “was not being sold out”.

D. With renewed vigor, he sat down to write a new program code and (7) a more advanced program was ready (8). The next day, the program had to be put up for sale. Copy to the appropriate position: 7 – “in 2 years”; 8 – “Microsoft Word”.

E. There was a (10), Richard picked up the phone and heard the words: “Don’t even try to find us, your program will be put up for sale today, (9)”. Copy to the appropriate position: 9 – “we will get your money”; 10 – “phone call”.

F. It was a cold winter night in (11), a programmer (12) was sitting at his computer. He was terribly tired, but he had to finish writing the Microsoft Word program for DOS. Copy to the appropriate position: 11 – “1983”; 12 – “Richard Brody”.

G. An hour later, (13) into the competitors’ company and seized the stolen program. Richard Brody put his program up for sale on the same day, the new version of Word was successful and (14) to all corners of the world. Copy to the appropriate position: 13 – “the police broke in”; 14 – “sold”.

Thus, with the help of a sticker board, intercultural project activities of a legal nature, cooperation and socialization were organized, the environment for developing the intellectual qualities of a person were created, and experience in filling a lawyer's portfolio in a foreign language was gained. At the fixing stage of the experiment, the second testing was organized. It also consisted of 70 tasks. Table shows the results of the testing before and after the experiment.

Measurement results at the beginning and at the end of the experiment

The results of the experimental group	Before the experiment		After the experiment	
	Control group	Experimental group	Control group	Experimental group
Percentage of students who failed the test	49% (24)	50% (24)	59% (29)	19% (9)
Percentage of students who succeeded	51% (25)	50% (24)	41% (20)	81% (39)

The next hypotheses were formulated: H0: the level of formation of professional competences in the experimental group is statistically equal to that of the control group; hypothesis H1: the level in the experimental group is higher than the level of the control group. The trustability of the results was proved with the help of the Fisher angular transform by means of the online calculator (<https://www.psychol-ok.ru/statistics/fisher/>). The critical value of the Fisher criterion for a significance level of 0.05 (φ_{crit}) is 1.64.

The empirical value of the Fisher criterion before the start of the experiment is 0.098 ($\varphi_{emp} = 0.098 < \varphi_{crit} = 1.64$). Therefore, before the start of the experiment, the hypothesis H0 is accepted. The value of the Fisher criterion after the experiment is 2.465 ($\varphi_{crit} = 1.64 < \varphi_{emp} = 2.418$), so the hypothesis H0 is rejected and H1 is accepted.

Summarizing the results of the practice, it can be stated that the didactic capabilities of interactive sticker boards actively supported all the types of activities that form the basis of general professional, professional, professionally specialized competences of a professional in the legal industry. A wide range of tools allows activating intercultural information interaction, gain foreign language collaboration skills, develop logical thinking, and make improvements in training professionals in the legal industry and in the level of training in general.

The research materials correspond to the priority areas of UNESCO's activities and the system of Russian education in terms of training specialists in jurisprudence and law. The results obtained complement the conclusions of J. van Dijk, S. Kalidien, S. Choenni about the potential of virtual services for foreign language communication [13] and develop the ideas of E.V. Soboleva, T.N. Suvorova, A.V. Grinshkun, M.M. Nimatulaev regarding the impact of digital technologies on the formation of demanded professional competencies of highly qualified professionals of the future [10].

Conclusion. In the work, based on the analysis and generalization of the possibilities of information resources for foreign language teaching in a modern digital intercultural educational environment, tools of interactive tools, the authors reasonably single out a promising direction for teaching legal disciplines – the use of virtual stickers to form the professional competence of future lawyers in foreign language classes at a university. Among such features, the authors distinguish:

- the possibilities of network intercultural virtual interaction in solving specific legal problems (working with multi-colored stickers to display the logic of reasoning, presenting facts, assumptions, arguments, versions, hypotheses in a foreign language);
- applying for legal assistance to a teacher/other specialist (through tags, comments, posts) using a foreign language;
- virtual “brainstorming” for the investigation of international crimes;
- individualization of foreign language learning (selection of the topic of the project and the team; the pace and trajectory of knowledge; methods of processing and presenting information on the board; the intensity of seeking help and advice);

- independence of the intercultural virtual environment (modeling of international legal processes: litigation, expertise, law enforcement, crime prevention, etc.);
- saving the results in a cloud service in the form of a portfolio of a lawyer in a foreign language.

The results of the carried out work can be useful when meeting the requirements of the society to educating professionals in the legal industry.

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