



Развитие цифровой компетенции студентов при создании видеоподкастов на английском языке для специальных целей

О. Н. БРЕГА, Г. В. КРУГЛЯКОВА

АННОТАЦИЯ

Введение. В условиях цифровизации общества развитие цифровой грамотности студентов является первоочередной задачей. Однако, существующие образовательные парадигмы не всегда сочетают в себе комплексное развитие иноязычной и цифровой компетенции студентов.

Наблюдается растущая потребность в инновационных методологиях, которые позволят студентам овладеть как лингвистическими, так и цифровыми навыками, необходимыми для конкурентоспособной профессиональной деятельности.

Цель исследования: научно-теоретическое и экспериментальное обоснование инструментов для развития цифровых компетенций студентов при создании видеоподкастов на английском языке для специальных целей.

Материалы и методы. Исследование проводилось в течение 2023-2024 учебного года со студентами 3 курсов нелингвистических направлений подготовки Тольяттинского государственного университета (Российская Федерация). Методы: контент-анализ основополагающих документов «Общеввропейские компетенции владения иностранными языками» (CEFR) и «Цифровая компетентность» (DigComp 2.2); моделирование; педагогический эксперимент; критерий хи-квадрат Пирсона.

Результаты исследования. В результате исследования авторами была разработана «Матрица цифровых и иноязычных компетенций при создании видеоподкастов», систематизирующая взаимосвязь между иноязычными компетенциями (восприятие, посредничество, продукция, взаимодействие) и цифровыми компетенциями (информационная грамотность, коммуникация и сотрудничество, создание цифрового контента, решение проблем, цифровая безопасность). Смоделировано образовательное пространство создания видеоподкастов, включающее в себя «Пошаговый список действий для создания видеоподкаста» и «Чек-лист оценки уровня цифровых компетенций при создании видеоподкаста». Результаты экспериментального обучения продемонстрировали эффективность предложенных инструментов и показали значимое повышение уровня цифровых компетенций студентов (для уровня В1: $\chi^2_{ЭМП} = 9,386$; $p=0,025<0,05$).

Заключение. Результаты исследования подтверждают эффективность разработанных инструментов для развития цифровых компетенций студентов, выступающих в роли социального агента при создании видеоподкастов, и позволяют рекомендовать интеграцию данной методики в учебный процесс.

КЛЮЧЕВЫЕ СЛОВА

создание видеоподкастов, иноязычные компетенции, общеевропейские компетенции владения иностранными языками, цифровая компетентность

Для цитирования: Брега О. Н., Круглякова Г. В. Развитие цифровой компетенции студентов при создании видеоподкастов на английском языке для специальных целей // Перспективы науки и образования. 2025. № 2. С. 210–227. <https://doi.org/10.32744/pse.2025.2.14>

Поступила: 27.09.2024 | Одобрена: 15.02.2025 | Опубликовано: 30.04.2025



Лицензия «С указанием авторства — С сохранением условий». Позволяет перерабатывать, исправлять и развивать произведения при условии указания авторства и лицензирования производных работ на аналогичных условиях.



Digital competence development while video podcast creation in ESP

O. N. BREGA, G. V. KRUGLYAKOVA

ABSTRACT

Introduction. In the context of digitalization, the development of students' digital literacy is a paramount objective. However, existing educational paradigms do not always effectively integrate the widespread development of both foreign language and digital competencies in students. There is a growing need for innovative methodologies that enable students to acquire both linguistic and digital skills essential for competitive professional activities.

This research aims at the scientific-theoretical and experimental validation of tools for developing students' digital competencies through the video podcast creation in ESP.

Materials and Methods. The study was conducted during the 2023-2024 academic year with 3rd-year students from non-linguistic programs at Togliatti State University. The methods employed included: content analysis of the foundational documents "Common European Framework of Reference for Languages" (CEFR) and "Digital Competence Framework for Citizens" (DigComp 2.2); modeling method; pedagogical experiment; and mathematical statistics using Pearson's χ^2 test.

Results. The research resulted in the development of a "Matrix of ESP communication modes and digital competence in video podcast creation", which systematizes the interrelation between foreign language aspects (Reception, Mediation, Production, Interaction) and digital competencies skills (Information and data literacy, Communication and collaboration, Digital content-creation, Problem-solving, Safety). A learning environment for video podcast creation was modeled, comprising a "Step-by-Step To-Do List in Video Podcast Creation" and a "Check-List of Digital Competence Development in Video Podcast Creation". The results of the experimental training demonstrated the effectiveness of the proposed tools and showed a significant increase in the level of students' digital competencies (for level B1: $\chi^2_{EMP} = 9.386$; $p = 0.025 < 0.05$).

Conclusion. The findings of this study confirm the effectiveness of the developed tools for enhancing students' digital competence when they act as social agents in the creation of video podcasts. That allows to recommend the integration of this methodology into the educational process.

KEYWORDS

video podcast creation, ESP competence, common european framework of reference for languages, digital competences

For Citation: Brega, O. N., & Kruglyakova, G. V. (2025). Digital competence development while video podcast creation in ESP. *Perspektivy nauki i obrazovania = Perspectives of Science and Education*, (1), 210-227. <https://doi.org/10.32744/pse.2025.1.14>

Received: 27 September 2024 | Approved: 15 February 2024 | Published: 30 April 2025



This is an open access article distributed under a Creative Commons Attribution-ShareAlike International License (CC-BY-SA 4.0) that allows others to share the work with an acknowledgement of the work's authorship and initial publication in this journal

INTRODUCTION

The field of teaching foreign languages, especially in higher education, has changed dramatically in the last several decades and now encompasses much more than just language learning. A more comprehensive approach to language learning is needed in the modern era, which is marked by globalisation and rapid technological advancement. This approach should give students the digital competence they need to successfully participate in an interconnected and technologically driven world, in addition to linguistic proficiency. This change is in line with a number of significant global efforts to promote an educational paradigm that is more inclusive, egalitarian, and forward-looking.

Through its numerous initiatives and proclamations, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) has consistently underlined the value of digital literacy and the incorporation of technology into education in order to support lifelong learning and sustainable development [1]. In a similar vein, the Council of Europe supports the development of digital skills as a crucial element of successful communication and active citizenship in a worldwide society, as part of its endeavors to advance democratic principles and intercultural understanding [2]. Additionally, the International Association of Universities (IAU) emphasizes that all disciplines of study require the development of digital competence, and that higher education institutions must modify their curricula to meet the demands of the digital age [3].

In response, teaching foreign languages, such as English for Specific Purposes (ESP), involves nurturing both language skills and the strategic acquisition of digital capabilities essential for responsible and autonomous professional collaborations. This research explores the potential of video podcast creation as a pedagogical strategy to enhance digital competence alongside ESP skills, positioning students as active content creators and equipping them for success in a dynamic and digitally-driven world.

In a rapidly evolving digital landscape, the use of video podcasting in foreign language education at tertiary level is gaining traction as an effective tool for enhancing digital competences [4; 5]. Research conducted on the use of digital technologies in Russian universities reveals promising insights into the impact of video podcasting on language learning [6]. According to findings from the survey conducted in the organisation and published research, video podcasting has emerged as a valuable resource for students looking to develop proficiency in foreign languages. By integrating video content into language courses, educators are able to create engaging and interactive learning experiences that cater to diverse learning styles. The use of video podcasting not only enhances language comprehension but also fosters digital literacy competences among students. By leveraging technology to deliver language lessons, educators are equipping students with the necessary competences to navigate an increasingly digitalised world [7]. As Russian universities continue to embrace digital technologies in education, video podcasting stands out as a versatile tool for promoting language acquisition and digital competences development [8]. By incorporating this innovative approach into foreign language curricula, institutions are preparing students for success in an interconnected global environment.

From the above it we can induce the need for a compound assessment framework for language and digital competence, the present research is mainly focused on the language and digital competences developed while the video podcasts creation in a foreign language at tertiary level.

This study, among others, highlights the following research questions.

RQ1: "What is the current scientific view on the high school students' digital competence enough to play a role of a "social agent" studying ESP in the digital era?"

RQ2: "What are the relevant ESP and digital competence involved in video podcast creation?"

RQ3: "What is the ESP learning environment that supports university students' development as digital social agents while video podcast creation?"

RQ4: "How can students' digital competence increase with the ESP learning environment while video podcast creation?"

LITERATURE REVIEW

In the publication on Key Competences for Lifelong Learning, the Council of the European Union outlines the essential competences: individuals need to achieve self-actualization, lead healthy and sustainable lifestyles, pursue lifelong learning and benefit employment opportunities, and participate actively in digital society as citizens. The aforementioned critical competencies are offered as opportunities for social inclusion in a multilingual and multicultural environment: "communication in the mother and foreign languages; mathematical competence and basic competences in science and technology; digital competence; learning to learn; social and civic competences; sense of initiative and entrepreneurship; and cultural awareness and expression" [9, p. 5].

Additionally, the declaration of a new type of literacy known as "digital literacy" has caused a paradigm shift in education and job roles in many workplaces as technology replaces routine tasks leading to workforce redundancy. At the same time, according to Fossen and Sorgner [10] new professions involving the creation and use of digital content are emerging. More and more they discuss the concept of "digital literacy". According to Medlock Paul, Spires and Kerkhoff [11], there are three pillars of digital literacy: finding and consuming digital content; creating digital content; communicating or sharing digital content. "The ability to access, manage, understand, integrate, communicate, evaluate, and create information safely and appropriately through digital devices and networked technologies for participation in economic, social, and political life" is how UNESCO defines digital literacy, which is a component of the key competences for lifelong learning [12, p. 7]. The need to foster and leverage digital competences is initiated worldwide. All the countries are also making significant strides in digital literacy.

Thus, "the literature describes the digital literacy in many ways by associating a set of various technical and non-technical elements" [13]. The European Digital Competence Framework [12] proposed by the European Union, which is currently under review and undergoing an updating process, has defined core components of the digital competence in five areas: "information and data literacy, communication and collaboration, media literacy, digital content creation (including programming), safety (including digital well-being and competences related to cybersecurity), intellectual property related questions, problem solving and critical thinking" [12, p. 13]. In 2022, the fourth version of the European Digital Competence Framework [14] complemented the previous one with the following components: "evaluating online content and its sources; the context of remote or hybrid working; digital accessibility; environmental and sustainable aspects of engagement with digital technologies; wellbeing and safety; and engagement with artificial intelligence systems and data literacy" [15].

Based on the above, it is evident that digital competences are becoming a necessity and a reality of a multicultural society and a key to lifelong learning.

At the governmental level, Russia is also formulating plans for the advancement of higher education in the digital age. The topic of prospects for the development of education in the conditions of digital transformation of the economy in particular has been given careful thought [16]. They authorised the "List of Key Kompetences in the Digital Age" to be included in professional standards, paying attention to the following components: "communication and co-operation in the digital environment; self-development under uncertainty; creative thinking; information and data management; critical thinking in the digital environment" [17].

It is evident that aggressively integrating digital technology into the educational process in universities has both advantages and disadvantages. While younger generations are considerably faster and more adept at interacting with and using technology, many teachers find that these tasks require a lot of multitasking and complexity [18]. According to Zeer, Tserkovnikova and Tretyakova [19], teachers working with today's kids, teens, and adults have two main responsibilities: they must understand the psychological traits of the members of the modern digital generation and incorporate into their lesson plans innovative approaches to problem-solving when students take an active role in their own development. It is crucial to stress that digital learning should facilitate communication between educators and learners in order to foster mutual learning, growth, and development. This will improve the quality of educational activities and nurture trust in remote learning [20].

As Dubrov, Kochetkov, and Steklyannikov [21] propose, constructing individual educational path for students and implementing Student-Centered Approach in high school education – which view the student's personality as the driving force behind the educational process – are also important considerations in light of the peculiarities of the digital generation's way of thinking. The students themselves eventually resolve which learning path to take.

According to Knowles [22], Self-directed learning, is a method in which students identify their own learning needs, explicitly state their learning goals, search for learning materials, select, and use appropriate learning procedures, and assess their own learning outcomes without assistance from others. Prioritising the needs and interests of the students, student-centered learning recognises the importance of student voice in the educational process. Young and Paterson [23] pointed out that as the facilitators of their own education, students determine what they will learn, how quickly they will learn it, and how they will evaluate their own progress in a student-centered learning environment. In addition to the methods listed above, Mabrouk [24] found that the following ones can be used at university level, and both worldwide and Russian scientists have noted their benefits [25]: active form of learning; emphasis on deep learning and understanding; increased responsibility on the part of the student; extended autonomy of the student; interdependence between the instructor and the student; reflexive approach to the teaching and learning process both on the part of the instructor and the student.

The recommendations made by both local and international scientists align with the goal standards stated in the Common European Framework of Reference for Languages format. Thus, in the context of the language acquisition for the multicultural communication the digital competences are equally vigorous future aptitudes in the row of other communicative abilities (Reception, Production, Interaction, Mediation) [26] stated in the CEFR as the basis documents for the language competences developed.

Since the European investigations utilise the term "social agent", and the Russian studies refer to the student as having a "communicative or socially communicative personality", an awareness of the role of the student as a social agent has emerged. In both the actual and digital worlds, language users are autonomous, accountable social actors, or "social agents", who produce and convey meaning through their professional collaboration serving various roles in several settings. Professional language is a tool for gathering and sharing professional knowledge, but it's also a way to structure knowledge – both individual and group – through communication and interpretation of the outside world. Thus, let us point out that language learning is both a cognitive and social activity, taking into account interactive and communicative purposes and contexts of professional language use in the real and digital world. As a consequence, language education should create learning environment that encourages learners to develop as social agents, autonomous and responsible language users. Students, as social agents, can then take responsibility for their learning process and continue their self-learning throughout their lives, their "role should be modified in order to enable learners to take responsibility for learning" [9, p. 5]. ESP teachers should also play the facilitator role.

Video podcast creation offers ESP educators at tertiary level a powerful tool to cultivate a learning environment that fosters the development of students as autonomous and responsible language users capable of lifelong learning. Research indicates that incorporating podcasts and video materials into ESP education enhances students' motivation, engagement, pronunciation, vocabulary, and grammar competences [27]. Additionally, studies highlight the benefits of using video technology for target language exposure, emphasising the autonomy it provides learners outside of class time [28]. Furthermore, the use of podcasts in ESP learning at university has been shown to improve listening comprehension, promote metacognitive strategies, and facilitate independent learning among adult language learners [29]. By leveraging video podcasting, ESP educators can create interactive and dynamic learning experiences that empower students to become proficient communicators and lifelong learners, ultimately shaping them into competent social agents in the realm of professional language acquisition [30].

The scientific studies mentioned above support the ones the authors of the article had previously read and are pertinent to how students may use video podcasting to address the unique challenges of tertiary-level ESP [31]. Stated in the previous study heterogeneous nature of the university learners' population necessitates a more flexible and adaptable approach. Whereas with video podcasting instructor can cater to a wide range of linguistic and disciplinary needs. Moreover, the

limited time frame of ESP objectives at the tertiary level can be overcome by diversification of the maximised learning outcomes through video podcast creation within the constraints of the academic calendar. Additionally, fostering close collaboration between language instructors and subject-matter experts in video podcasting can help bridge the gap between general English proficiency and the specialised discourse of academic disciplines developing the digital literacy. By addressing these unique challenges, this study results can harness the power of video podcast creation to enhance not only language, but also digital skills development for ESP learners at the tertiary level, preparing them for success in their academic and professional journeys.

METHODS AND METHODOLOGY

The following ideas and scientific methodologies serve as the foundation for the study's conceptual framework and developments: the writers clarified and supplemented various aspects, including the university student's status in the digital society when ESP learning and the uniqueness of language competences in conjunction with digital competences, based on the university education digitalisation and the implementation of student-centered approach in learning.

The research's objective is to ascertain how the video podcast creation in ESP learning can foster the development of digital competences of students at tertiary level.

The following groups of methods were used in the process of research:

1. Empirical: a critical analysis of modern scientific research on theoretical knowledge relevant to the problem of digitalisation of society, and approaches to determine the role of university students while ESP learning.
2. Statistical: qualitative content analysis is used to develop integrated framework the language competences in correlation with digital competences while ESP video podcast creation
3. Design: modelling of tools to build ESP learning environment while video podcast creation at tertiary level.
4. Training of 3 courses students of non-linguistic majors based on ESP learning environment while video podcast creation for the formation of students' digital competence.

Qualitative content analysis

This study employs a qualitative content analysis as the main tool to develop a compound assessment framework for language and digital competence in ESP video podcasting in high school. The design of the compound assessment framework for language and digital competence developed while the video podcast creation in ESP involves analysing diverse data sources to understand how these competencies intertwine. Qualitative Contextual Analysis (QCA) is a well-established methodology for systematically analysing textual and visual data to identify patterns, themes, and meanings [32]. QCA provides us with a structured approach to data investigation, enhancing the transparency and trustworthiness of our findings. QCA allowed authors to delve into the nuances of language use and digital practices within the context of ESP video podcast creation. In our research we used not only deductive (starting with existing frameworks like DigComp and CEFR) but inductive modes as well, thus, or combining them both. Using QCA we could identify and categorise these competencies from the mentioned frameworks, and uncover patterns and relationships between codes and themes.

The following sequence of the study was applied for the descriptors creation.

Units of Analysis Definition

The present Qualitative content analysis is for examining the descriptors in our framework based on several well-established Deductive and Inductive modes to structure our analysis.

First, during the deductive mode, we predefined framework of codes or categories based on existing literature or theories and used these codes to analyse out data. We started with the existing

frameworks: DigComp Areas and CEFR Language aspects as they are prominently incorporated in the digital and foreign language knowledge assessment systems in Europe, Russia and worldwide.

We chose the CEFR as the document defines the goals, priorities and content of language training on a global level and serves as the fundamental one. DigComp 2.2 is of interest, precisely in the field of our research concerning video podcasting for educational purposes, the document has a detailed layout of the requirements to the levels of digital literacy of the population.

Data Analysis and Initial Coding Scheme Development

After, we implemented the inductive mode viewing the video podcast creation process as a sequence of steps each of which require ESP and digital competences application. Exploring each step, we discovered recurring themes and patterns, which become the analysis codes. The similar categories were revised in the process during the deductive mode. This helped the authors to develop the matrix that presents the relative distribution of the language competences Reception, Interaction, Production, Mediation applied in the process foreign language video podcast creation clustered according to the five DigComp competence areas tallied in the European Commissions Framework: Information and data literacy, Communication and collaboration, Digital content-creation, Problem-solving, Safety. See Table 1 in Results.

Descriptors Development. Inclusion and Exclusion Criteria

For each cell in our matrix we created descriptors based on the patterns we found. We conducted the research with the inclusion and exclusion criteria.

We had the next inclusion criteria to create our descriptors and make the research valid:

- (1) Descriptors definition clarity – The descriptor clearly defines the competences.
- (2) Descriptors observability – Each descriptor is based on abilities and competences from the CEFR and DigComp documents.
- (3) Descriptors relevance – All the descriptors chosen for the matrix are tied to ESP video podcast creation and are meaningful within the present research context.

The exclusion criteria are the following:

- (1) Descriptors outside the scope of ESP learning.
- (2) Descriptors not directly applicable to video podcasting in a foreign language.

The developed tools for creating ESP learning environment are as follows: "Matrix of ESP communication modes and digital competence in video podcast creation" (for educators); "Step-by-Step To-Do List in Video Podcast Creation" (for students); "Check-List of Digital Competence Development in Video Podcast Creation" (for educators and students). They are presented in the Results section.

The study's stated problem led the authors to propose two hypotheses: hypothesis (H0) holds that instruction based on an ESP learning environment has no effect on students' digital competency levels, while hypothesis (H1) holds that instruction based on an ESP learning environment helps students' digital competences grow and improve. The training involved 3 courses students of non-linguistic majors using the ESP learning environment components mentioned above. This training was given in-person in ESP classes and was incorporated into the standard curriculum.

Students were required to create English-language video podcasts on any subjects that sparked their interest before the training. Students might work alone or in pairs, and they were free to choose how they interacted with one another and completed their assignments. Following a three-week period of work, the students shared their video podcasts in a closed Telegram community, where they also reviewed and commented on each others' works in real time. The teacher also used the "Check-List of Digital Competence Development in Video Podcast Creation" as a basis for the assessment.

After this stage, students gained theoretical and practical experience working on video podcasts based on the "Step-by-Step To-Do List in Video Podcast Creation" and under the guidance of a

teacher. They studied the logic of working on creating video podcasts, worked out this algorithm and received a teacher's assessment. Students also received a "Check-List of Digital Competence Development in Video Podcast Creation", in which they got acquainted with the levels of digital competence and their descriptors by type of language competence. After the theoretical training and step-by-step work on the creation of video podcasts under the supervision of a teacher, students moved on to independent work on video podcasts. There were also no restrictions on the choice of topics and forms of work. Thus, the same training conditions were created at all stages of the training, which meets the requirements for the experiment.

RESULTS

The current study was carried out in the framework of ESP video podcast creation for the development of digital competence. It is important to note that its results complement those previously acquired theoretical and methodological frameworks for thinking about the problem of ESP students in the age of societal digitalisation.

After responding to the research questions, the present findings can be summed up as follows.

(1) A role of the high school student as "social agent" studying ESP in the digital era

On one side, the CEFR's action-oriented approach, including its concept of the user/learner as a social agent mobilising a plurilingual repertoire, represents a significant development from the communicative approach. Advances in research highlight the need to overcome a vision of languages as stable, pure objects existing outside their speakers/users and a reductive view of learning as an internal cognitive process, meant to prepare for later real-life use. These theoretical advances have been flanked by bottom up developments bringing a more dynamic vision of language education that engages more meaningfully with the principles of the CEFR.

On the other side, digital competence are integrated as part of the curriculum, being a huge asset in the job market and the daily life; internationally "digital competences" are being viewed as the main perspective to be invested heavily in educational reforms and public policies. Learning a foreign language through video podcast creation allows students to be involved into relevant intercultural interaction and liable digital communication.

Students as social agents have emerged in the real and digital worlds, language users have become autonomous, responsible "social agents", who produce and convey meaning through their professional collaboration serving various roles in several digital settings; responsible for their learning process and continue their self-learning throughout their lives in a digital world.

According to the author, the student's role and status in ESP learning are as follows.

A high school student is a social agent and network language personality who expresses personal and professional qualities through personally career meaningful activity; the student is willing to use ESP for self-realisation and self-determination; and the university student fosters amicable professional communication with a community of virtual interlocutors in a multicultural, multilingual, and intercultural digital setting. Consequently, the role of the student as a social agent shifts to a digital social agent and professional foreign language learning is viewed by the authors from this perspective.

(2) The ESP and digital competences involved in video podcast creation

The Matrix of ESP communication modes and digital competences video podcast creation (Table 1), developed by the authors of the article, is taken as a basis for correlating students' language and digital skills when creating video podcasts. The authors connected language competences by highlighting students' actions in producing video podcasts in professional field and basic digital competences stated in the Key Competences for Lifelong Learning: "Digital competence involves the confident, critical and responsive use of, and engagement with digital technologies for learning, at work, and for participation in society. It includes information and data literacy, communication and collaboration, digital content creation (including programming), safety, (including digital well-being and competences relating to cyber security), and problem solving" [9, p. 5] (see Table 1).

Table 1**Matrix of ESP Communication Modes and Digital Competences Video Podcast Creation**

	Information and data literacy	Communication and collaboration	Digital content-creation	Problem-solving	Safety
Reception	Browsing professional data, digital content search, evaluation including content created by artificial intelligence for video podcast creation	Emails, posts, professional messages, video podcasts interpretation	Identifying digital competence gap	Interpersonal problem recognition	Detecting malware, viruses, other cybersecurity issues
Mediation	Digital content in professional area, digital content validation for video podcast creation	Collaborating and engagement in citizenship through digital technologies	Understanding and awareness of intercultural interactions	Readiness to function as an intercultural social agent via ESP video podcasts	Copyright and licenses
Production	Oral and written online content creation concerning the podcast script lexis, grammar and structure suitable for professional objectives	Sharing ESP video podcasts through digital technologies	Processing a video podcast integrating audio and ESP video content	Interpersonal problem settlement	Protecting personal data and privacy in professional communication
Interaction	Interaction in hybrid and/or remote forms to build a shared vision for ESP video podcast (Data search, Planning & Assigning roles)	Netiquette Managing digital identity	Feedback & Revision when developing a video podcast	Problem settlement when discussing a published video podcast online.	Ecological (careful) broadcasting of knowledge and information in the digital professional environment

ESP and digital competences are clustered in four areas postulated in CEFR (reception, mediation, production, and interaction), displaying the abilities being fostered during foreign language video podcast creation. Reception of text, audio, and visual materials in ESP applies searching and analysing competences and information validation in the digital environment to create a video podcast, including artificial intelligence content detection. Language/intercultural mediation comprises online tool applications for sharing resources, interacting with people in digital environments, working together using digital tools, connecting with people by following netiquette guidelines, and managing the digital identity while video podcasting. Digital collaboration means understanding and awareness of intercultural connections and interactions and readiness to function as an intercultural and multilingual social agent in ESP communication via video podcasts. Production of own language product in a foreign language revenue: writing a text in a foreign language, observing the podcast script structure and logic, its adaptation into appropriate content type concerning the communicative message, using means of cohesion. The field of digital content production includes both the generation of original material with digital tools and the re-use of digital content. Understanding copyright concerns and, occasionally, programming abilities are required when publishing digital content online, depending on the format of the publication. Safety includes everything related to data security, and problem-solving in the context of technology includes distinguishing competence gaps and, at a more advanced level, determining when technical solutions are required. Interaction in ESP with an interlocutor is a communication in hybrid and/or remote forms when developing a video podcast for the purpose of ecological (careful) broadcasting of knowledge and information in the digital professional environment. Multicultural interaction is facilitated when discussing a published video podcast on-line.

Thus, the developed matrix presents the relative distribution of the language competences applied in the process ESP video podcast creation clustered according to the five DigComp competence areas tallied in the European Commission's framework: information and data literacy, communication and

collaboration, digital content-creation, problem-solving, safety. Learning a foreign language through video podcast creation allows students to be involved into relevant intercultural interaction and liable digital communication. Teaching foreign languages allows to develop digital abilities that brings innovation, creativity, and communication and facilitate educational process.

(3) The ESP learning environment that supports students' development as digital social agents while video podcast creation

In addition to the "Matrix," which is the foundational tool of the learning environment, this study provides two more means, which are as follows: "Step-by-Step To-Do List in Video Podcast Creation" and "Check-List of Digital Competence Development in Video Podcast Creation".

Consequently, "Step-by-Step To-Do List in Video Podcast Creation" outlines the precise tasks increasing the transparency and straightforwardness of the language acquisition process and arranges their ESP video podcasts generation. To create this tool, we took into account the following: particularities of phenomena Generation Z; characteristics of their clip thinking; perception of knowledge in bite-sized chunks; concentration on specific tasks when answering questions; learning by personal experience and autonomy; freedom to choose strategies, forms and technologies.

The steps are clustered into four language competences, determine students' activity due to comprehensible steps, and allow: choosing a suitable learning strategies; enhance autonomous ESP learning; independent online resources using; communicate with the team-mates; peer collaboration and open discussion; fostering intercultural and professional strategies; acquisition of pertinent personal experience; self-evaluation of outcomes and reflection.

"Step-by-Step To-Do List in Video Podcast Creation"

Reception

1. Choose the topic and target audience for your video podcast.
2. Specify the subtle tasks of creating a video podcast.
3. Specify the schedule of the video podcast production.
4. Choose data from several professional sources and verify it.
5. Search information relevant to your professional objectives.

Mediation

1. Make it clear, brief, free from plagiarisms, protecting personal data and privacy.
2. Pay close attention to the significant cultural differences which may accrue interesting for the audience.
3. Recognise different perspectives and perceptions of linguistic and cultural information.
4. Create your video podcast relevant to cultural code of the audience.
5. Modify language to fit professional context.

Production

1. Find appropriate sample video podcast type and study its structure, peculiarities.
2. Structure your video podcast script.
3. Use glossaries appropriated for your professional area and enhance its clarity.
4. Adapt it into appropriate digital content concerning the communicative message.
5. Take photos and make videos; align audio, video, and subtitles.
6. Generate your ESP video podcast.

Interaction

1. Broadcast the ESP video podcast and invite its on-line ESP discussion.
2. Reflect on your results, defining the product's advantages and disadvantages.
3. Study and take into consideration audience feedback.
4. Give your opinion, respecting the interests and opinions of others.
5. Consider a new ESP video podcast's issue and format while considering your reflection and the obtained feedback.

Moreover, on the basis the DigCompEdu framework and the European CEFR we designed one more tool – "Check-List of Digital Competence Development in Video Podcast Creation". The DigCompEdu framework distinguishes six different, progressively advancing competence levels, aligned with the European CEFR language competence levels: Newcomers (A1), Explorers (A2), Integrators (B1), Experts (B2), Leaders (C1) and Pioneers (C2). Within the framework these levels are designed to describe typical stages and roles educators pass through when integrating digital technologies into their professional practices. The authors of this study created their descriptors for the levels of digital competence development – Newcomers (A1), Explorers (A2), Integrators (B1), and Experts (B2) – in connection to the production of a video podcast in ESP. Levels Leaders (C1) and Pioneers (C2) are not included in the study since it is not in line with the objectives. The check-list, which consists of particular can-do statements for levels A1-B2, is intended to help teachers and students assess ESP and digital competencies that students have acquired through video podcast creation (see Table 2).

Table 2

Check-List of Digital Competence Development in Video Podcast Creation

Newcomers (A1)	
Reception	I can choose from the suggested professional topics and information that is interesting to me in order to create a video podcast
	I can use one or two sources of information on the Internet without thinking about their authenticity.
Mediation	I can adapt the text into video content, taking into account its communicative professional message.
	I can effectively perform my amount of work and share the roles in the team equally.
Production	I can select the necessary sentences from the text, without changing their structure, to create text for a professional video podcast using the appropriate software.
	I can express myself digitally, using basic clichés and expressions to structure text and voice it, being able to maintain the reliability and confidentiality of digital content.
Interaction	I can review the published video podcast and give my assessment off-line.
	I can establish interaction and give my response when discussing a published video podcast online.
Explorers (A2)	
Reception	I can independently find, evaluate and manage information (authentic texts) and digital content on secure sites.
	I can correctly interpret different genres of texts, understand their structure, logic, including their hidden meaning.
Mediation	I can analyse professional resources, planned or created ESP content, taking into account cross-cultural ties and interactions.
	I can use various digital solutions for interaction, data exchange, and information within the framework of net etiquette in hybrid and/or remote forms when working in a team to develop a video podcast.
Production	I can structure the text for a video podcast using coherent communication tools, taking into account the structure (Introduction, Main part, Conclusion) and speech patterns in professional communication.
	I can voice the created text by consulting the dictionary, correcting my pronunciation and intonation.
Interaction	I can write an online comment on a colleague's ESP video podcast in order to convey my point of view effectively and respectfully.
	I can establish, maintain interaction, and share my experience when discussing an online published video podcast relating to my professional aims.

Integrators (B1)	
Reception	I can analyse audio and video information in ESP in a digital environment, identifying the main points for creating my own video podcast.
	I can critically analyse texts created by artificial intelligence, choosing only relevant material for a video podcast.
Mediation	I can get feedback on the results of working on a video podcast, analyse praise and criticism in order to further build a strategy for creating video podcasts.
	I can effectively function as part of a team when creating foreign language content in a digital environment.
Production	I can use a sufficient vocabulary that fully corresponds to the topic of the video to give clear descriptions, express a point of view on relevant topics using appropriate constructions, knowing the risks and threats in the digital environment.
	I can voice the created language content, observing the tone, tempo, intonation of the spoken utterance.
Interaction	I can initiate a professional discussion commenting video podcasts, take my turn when necessary, and end the discussion when it is necessary to broadcast knowledge and information in a digital environment, observing netiquette.
	I can correctly identify the needs, technical abilities, and technological capabilities for creating digital content; support others by organising and training a new team through digital technology. I can look for opportunities for self-development in my professional field and keep up with the development of digital technologies.
Experts (B2)	
Reception	I can independently evaluate, analyse and edit the information found, selecting only the points necessary for me, checking its actual authenticity.
	I can plan further video podcasts to implement my creative ideas concerning professional sphere and understand where to find this information, being able to protect devices and digital content.
Mediation	I can create text for a video podcast taking into account the culture of a recipient, adapting professional information for others, providing relevant comments, paying attention to the cultural connection of the viewers of the video.
	I can get feedback on the results of working on a video podcast, evaluate the positive and negative comments for building a strategy of proper video podcast creation.
Production	I can edit and create structured author's language material, compiling professional information from various sources, taking into account copyrights, using appropriate speech patterns that meet the online communicative requirement.
	I can correctly voice the created language content, corresponding to the dynamics of the information series and mount the author's video podcast, overlaying images and subtitles.
Interaction	I can present my finished ESP video podcasts through digital technologies, managing my digital identity.
	I can broadcast successful solutions in ESP video podcasts, expanding the subject and media content audience coverage.

The provided table illustrates the can-do statements that define the levels of digital competences, and are manifested in: information literacy and data management development when researching content (evaluating source credibility and relevance to the podcast topic, synthesising ESP information from multiple sources to create a cohesive narrative, and avoiding plagiarism and false information) for a video podcast, more careful attitude to digital safety and critical thinking when creating digital content (copyright, intellectual property, online privacy, and responsible use of online information), the use of devices and software in podcast production, digital and collaborative communication in content creation, and the application of digital competences across the key modes of ESP communication: reception, production, mediation, and interaction.

The declared in the study objectives for students' language acquisition during the video podcast creation are the following: developing these digital competences benefits students' language learning, e.g. enhanced research and critical thinking skills lead to improved reading and listening comprehension; collaborative video podcast creation promotes negotiation of meaning and fluency in spoken interaction; creating engaging content for a specific audience fosters awareness of register, tone, and audience-appropriate language use. Languages are not only a tool for acquiring and exchanging information, but also a means of interpreting and integration in the multicultural world and structuring both individual and collective knowledge.

With the combination of the proposed tools developed in this study ESP educators have all the opportunities to build the learning environment at tertiary level that supports students' development as digital social agents while foreign language video podcast creation and train Students' Digital Competence.

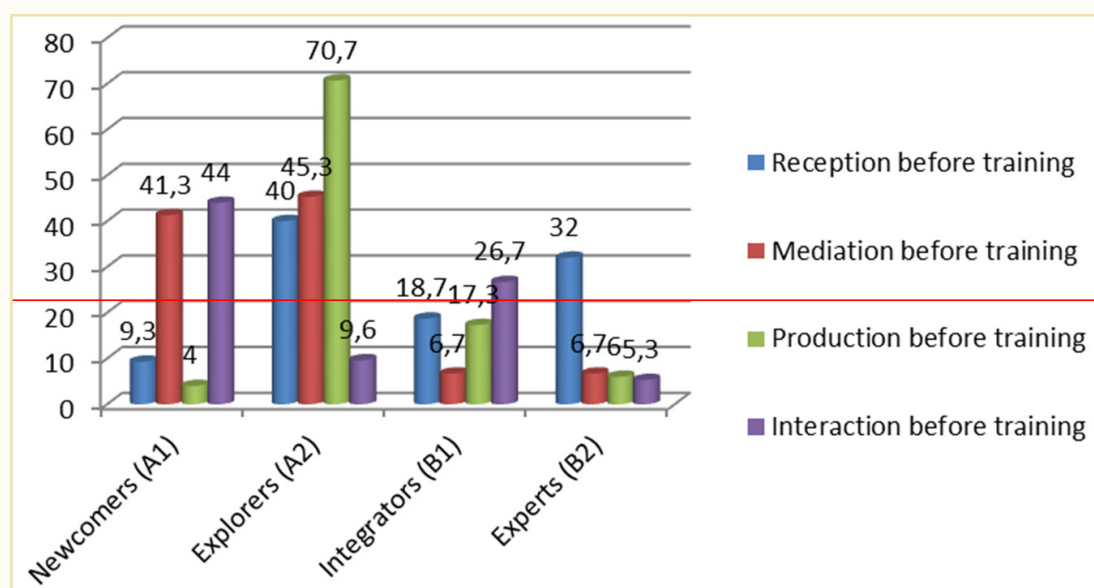
(4) To assess the level of Students' Digital Competence formed, the "Check-List of Digital Competence Development in Video Podcast Creation" developed by the authors was used, before and after training (see Table 3).

Table 3

Students' Digital Competence before and after training

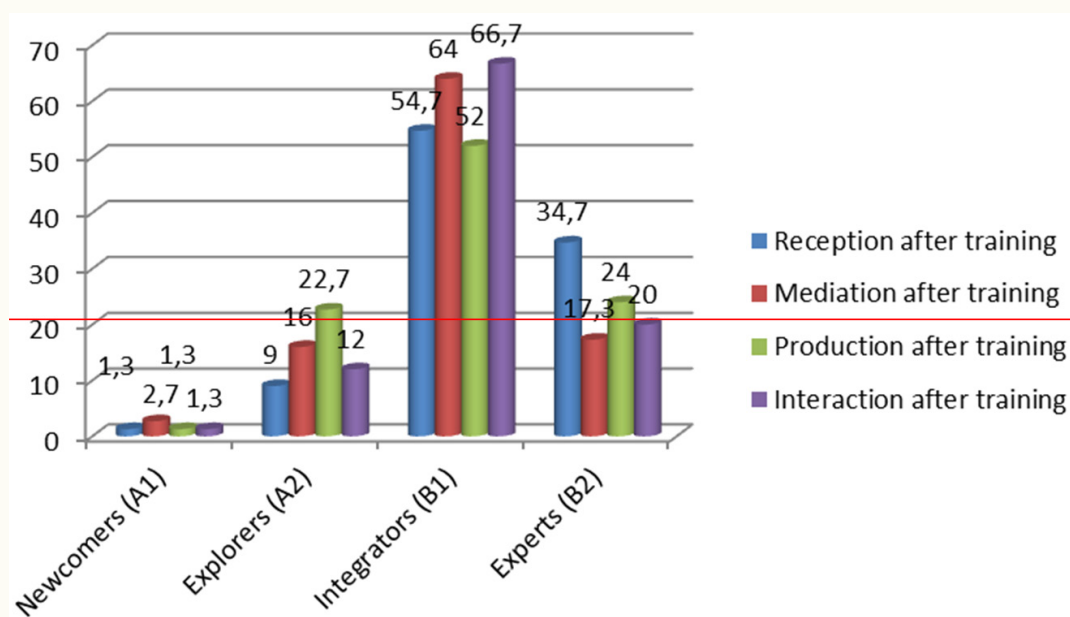
Level	Students' Digital Competence before training								Students' Digital Competence after training								χ^2_{emp}
	Reception		Mediation		Production		Interaction		Reception		Mediation		Production		Interaction		
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	
A1	7	9,3	31	41,3	5	4	44	58,7	5	1,3	8	2,7	1	1,3	10	1,3	3.267
A2	30	40	34	45,5	51	70,7	7	9,3	13	9,3	12	16	17	22,7	9	12	9.190
B1	14	18,7	5	6,7	13	17,3	20	26,7	35	54,7	48	64	34	52	41	66,7	9.386
B2	24	32	5	6,7	6	8	4	5,3	22	34,7	13	17,3	18	24	15	20	8.797

A positive dynamics in the formation of Students' Digital Competence, according to the levels Newcomers (A1), Explorers (A2), Integrators (B1), Experts (B2)



Thus, before training student's digital competence was at the median level of Newcomers (A1): Reception 24.6%; Mediation 17.35%; Production 41.4%; Interaction 12.5% and Explorers (A2): Reception 1.6%; Mediation 59.4%; Production 15%; Interaction 8.7%. After teaching students according to the proposed methodology, student's digital competence has reached mainly the Integrators (B1) level and, in some competencies, the Experts (B2) level. For example, competence Interaction before training was at Newcomers (A1) 44%, and after training reached Integrators (B1) 66.7% and Experts (B2) 20% levels. The most difficult to form competence Mediation also showed its growth – Newcomers (A1) 41.3% and Explorers (A2) 45.3% before training and Integrators (B1) 64% and Experts (B2) 17.3% after training. Overall, the data analysis demonstrated that, because of a structured learning environment designed to help students develop their digital competency, students who had previously been Newcomers (A1) were able to advance to the average level of Integrators (B1), demonstrating the applicability and efficacy of the suggested educational model.

There is a significant increase in students' digital competence levels: A1 decreased by 23%, A2 by 26.4%, while B1 increased by 42% and B2 by 3.8%.



For A1. Degrees of freedom: 3. The χ^2 value is 3.267. The critical χ^2 value at a significance level of $p < 0.05$ is 7.815. The relation between the factor and outcome variables is not statistically significant, $p > 0.05$. Significance level: $p = 0.353$. For A2. Degrees of freedom: 3. The χ^2 value is 9.190. The critical χ^2 value at a significance level of $p = 0.05$ is 7.815. The relation between the factor and outcome variables is statistically significant at a significance level of $p < 0.05$. Significance level: $p = 0.027$. For B1. Degrees of freedom: 3. The χ^2 value is 9.386. The critical χ^2 value at a significance level of $p = 0.05$ is 7.815. The relation between the factor and outcome variables is statistically significant at a significance level of $p < 0.05$. Significance level: $p = 0.025$. For B2. Degrees of freedom: 3. The χ^2 value is 8.797. The critical χ^2 value at a significance level of $p = 0.05$ is 7.815. The relation between the factor and outcome variables is statistically significant at a significance level of $p < 0.05$. Significance level: $p = 0.033$.

DISCUSSION

In the digital era, similarly to Kaliampos [33] we see university students studying a foreign language act as "social agents" by actively engaging with digital tools to enhance their language learning experience. After Huang and Lammers [34] we admit that students at tertiary level exercise agency by demonstrating intention, motivation, self-regulation, and self-efficacy in online learning environments, adapting to asynchronous and synchronous modes. We support Wieczorek, Tchumatchenko, Carvajal, and Eggl [35] that through the use of videos and social networks, university students take control of their ESP learning based on personal interests, actively mediating their language learning experiences and engaging in dialogic communication to develop pragmatic and discursive skills in a professional foreign language. Thus, we concluded that the university student in the digital world acts as a Digital social agent.

The findings of this study are consistent with those of proclaimed by UNESCO who similarly aim the digital competences to be integrated into of the curriculum, the job market, and the daily life. Furthermore, our study accords with the European Union, who has been proactive in enhancing digital competences across member states. Policies like the Digital Education Action Plan aim to bridge the digital divide by improving educational resources and promoting lifelong learning opportunities in technology. Besides, the findings are similar to those by Etchenique [36] where he similarly states the US initiatives like the Digital Literacy Program and various tech bootcamps aimed to equip citizens with essential digital competences. Asian countries are also making significant strides in digital literacy [37].

The findings complement and specify the Federal Law on Education in the Russian Federation, the Common European Framework of Reference, and the Digital Competence Framework for Citizens [14] as the authors of this article explored the development of digital competences in the context of ESP video podcasts creation. At the same time, the devised framework with descriptors help track the dynamics of digital competence. The present analysis of ESP distribution in video podcasting tasks across the five digital competence areas highlights several interesting insights. First, the largest proportion of language competences is concentrated in the “communication and collaboration” domain, which is to be expected given the inherent communicative nature of this task. The need to effectively coordinate group work, interact with peers, and present ideas in a clear and compelling manner is central to the process of creating a video podcast, as it is also proved by Tinmaz, Lee, Fanea-Ivanovici, et al [13]. While the “communication and collaboration” domain emerges as the most prominent, the competences related to “digital content creation” and “problem-solving” are also well-represented. This foreground the need for a comprehensive approach to developing digital competencies, one that encompasses not only technical skills but also critical thinking, creativity, and the ability to effectively convey ideas in a multimedia format. The relatively lower emphasis on “information and data literacy” and “safety” suggests potential areas for further ESP development and integration into the video podcast creation process.

The obtained outcomes also support Patti [38, p. 3] who claims “digital video can help teach and learn the four language skill... And, learning a foreign language and developing digital literacy at the same time is therefore a winning combination for present and future generations of professionals.”

The findings of the research brought us to the conclusion that by developing ESP and digital competences while English video podcast creation that address the demands of the contemporary digital world, this project fulfills the actual need for advancing research and understanding societal trends related to digital transformation.

In this context, it is important to apply the developed technologies for the development of students’ digital competences in the context of ESP teaching. The prospect of further research is the development and testing of the technology for the development of students’ digital competences in ESP learning and the mechanism of embedding the technology in the teaching process.

The potential obstacles students might face in embracing this active role, such as limited access to technology, varying levels of digital literacy, or cultural and social barriers, or the need for teacher training and support should be considered. The concept of incorporating the practice of making video podcasts into the coursework may be the primary motivator for their use in the educational process.

CONCLUSION

The problem of integrating digital abilities with foreign language proficiency is, for the most part, poorly understood and complicated question in the language teaching field. In this study, based on the regulatory documents of the Council of Europe and the Russian Federation, the authors managed to combine these two completely different spheres: foreign language and digital competencies. The article demonstrates how the strategy outlined in the article should be implemented in the language teaching to ESP high school students through the video podcast as a digital tool.

The distribution language competence across the five digital competence areas suggests that video podcast creation requires a multifaceted set of abilities, ranging from information management and critical evaluation to effective professional communication and digital content production.

The approach proposed in this article implies the creation of a language video podcast through the search, analysis of the actual authenticity of information, including the language design of the text, taking into account its lexico-grammatical organisation, structure, logic and coherence; its adaptation into digital audio content with communicative and professional orientation, using software and digital tools, allowing students to manifest themselves as communicative social agents, capable of safe Internet interaction in a foreign ESP-related language in the development of digital competence in the foreign language learning, and the development of digital competences of the student.

As we can see, the development of students' digital competences in the process of learning a professional foreign language provides additional opportunities to improve students' language competences. In addition, it allows students to reveal their own potential for self-learning and self-development, based on the analysis and reflection of the course and result of their activities, develops the ability to work in a team and take responsibility for their decisions, prepares students for competitive interaction in the digital society.

Digital competences are integrated as part of the curriculum, being a huge asset in the job market and the daily life; internationally "digital competences" are being viewed as the main perspective to be invested heavily in educational reforms at tertiary level and public policies.

REFERENCES

1. Law, N., Woo, D., Torre, J., Wong, G. A global framework of reference on digital literacy skills for indicator 4.4.2. UNESCO Institute for Statistics, 2018. Available at: <https://uis.unesco.org/sites/default/files/documents/ip51-global-framework-reference-digital-literacy-skills-2018-en.pdf> (accessed 06 December 2024).
2. Richardson, J. P., Milovidov, E. Digital citizenship education handbook: Being online, well-being online, rights online. Council of Europe, 2019, pp. 144.
3. IAU Policy Statement: Transforming higher education in a digital world for the global common good. 16th IAU General Conference, 2022.
4. Stanley, D., Zhang, Y. Student-produced videos can enhance engagement and learning in the online environment. *Online Learning*, 2018, no. 22(2), pp. 5-26. DOI: 10.24059/olj.v22i2.1367
5. Blacer-Bacolod, D. Student-Generated Videos Using Green Screen Technology in a Biology Class. *International Journal of Information and Education Technology*, 2022, no. 4, pp. 339-345. DOI: 10.18178/ijiet.2022.12.4.1624
6. Urazova, S. L., Gromova, E. B., Kuzmenkova, K. E., Mitkovskaya, J. P. Audiovisual media in the universities of Russia: typology and analysis of the content. *RUDN Journal of Studies in Literature and Journalism*, 2022, no. 27(4), pp. 808-822. DOI: 10.22363/2312-9220-2022-27-4-808-822
7. Kolesnichenko, A. N. The role of podcasts for students' communicative competence development in teaching a foreign language at a technical university. *Samara Journal of Science*, 2022, no. 11(2), pp. 287-291. DOI: 10.55355/snv2022112304
8. Tavberidze, D. V., Pajmakova, E. A., Avetisyan, T. A. Trends in the development of methods of teaching English in Russian universities using digital tools. *Education Management Review*, 2023, 11-1 (70). DOI: 10.25726/v0892-0365-6456-k
9. Council Recommendation of 22 May 2018 On Key Competences for Lifelong Learning (OJ C 189, 4.6.2018, p. 1). Available at: <https://www.eurisc.eu/BasicTexts/2018-09-D-69-en-2.pdf> (accessed 06 December 2024).
10. Fossen, F., Sorgner, A. Mapping the Future of Occupations: Transformative and Destructive Effects of New Digital Technologies on Jobs. *Foresight and STI Governance*, 2019, 13(2), 10-18. DOI: 10.17323/2500-2597.2019.2.10.18.
11. Medlock, P. C., Spires, H., Kerkhoff, S. Digital Literacy for the 21st Century. *Global Libyan Journal*, 2017, pp. 2235-2245. DOI: 10.4018/978-1-5225-7659-4.ch002.
12. Carretero, S., Vuorikari R., Punie Y. DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use. Publications Office of the European Union, Luxembourg, 2017. DOI:10.2760/38842
13. Tinmaz, H., Lee, Y-T., Fanea-Ivanovici, M. Baber, H. A systematic review on digital literacy. *Smart Learning Environments*, 2022, no. 9, pp. 21. Available at: <https://doi.org/10.1186/s40561-022-00204-y> (accessed 06 December 2024).
14. Vuorikari, R., Kluzer, S., Punie, Y. DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes. Luxembourg: Publications Office of the European Union, 2022. Available at: https://eliant.eu/fileadmin/user_upload/pdf/DigComp_2.2_-_The_Digital_Competence_Framework_for_Citizens.pdf (accessed 06 December 2024).
15. European Commission. Shaping Europe's digital future: Digital skills, viewed 18 February 2022. Available at: <https://digital-strategy.ec.europa.eu/en/policies/digital-skills> (accessed 06 December 2024).
16. Federation Council: Panel discussion "Regulatory regulation and measures of state support for teaching digital competencies from a student to a specialist," 2023. Available at: <http://www.fa.ru/org/dpo/ckce/>

- News/2023-10-16-sa.aspx (accessed 06 December 2024).
17. Zaitseva, O. M., Spiridonov, O. V. Digital competence in professional standards of engineering industry. *Social and labor research*, 2019, no. 36(3), pp. 112-120. DOI: 10.34022/2658-3712-2019-36-3-112-120.
 18. Kharlanova, E. M., Sivrikova, N. V., Roslyakova, S. V., Chernikova E. G. Educating the digital generation: the role of virtual communities. *The Education and Science Journal*, 2024, no. 26(1), pp. 103-132. DOI: 10.17853/1994-5639-2024-1-103-132
 19. Zeer, E. F., Tserkovnikova, N. G., Tretyakova, V. S. Digital generation in the context of predicting the professional future. *The Education and Science Journal*, 2021, no. 23(6), pp. 153-184. Available at: <https://doi.org/10.17853/1994-5639-2021-6-153-184> (accessed 06 December 2024).
 20. Tyurikov, A. G., Kunizheva D. A., Frolova E. V., Rogach, O. V. Trust in distance learning during the COVID-19 pandemic: Evaluation of the quality of education of students and teachers of Russian universities. *The Education and Science Journal*, 2022, no. 24(6), pp. 177-200. DOI: 10.17853/1994-5639-2022-6-177-200
 21. Dubrov, D. V., Kochetkov, M. V., Steklyannikov, V. Yu. Employer as an actor in student-centered education: experience of implementation. *Higher education in Russia*, 2020, no. 29(11), pp. 141-152. Available at: <https://doi.org/10.31992/0869-3617-2020-29-11-141-152> (accessed 06 December 2024).
 22. Knowles, M. S. *Self-directed learning: a guide for learners and teachers*. Chicago, IL: Follett Publishing Company, 1975.
 23. Young, L. E., Paterson, B. L. *Teaching Nursing: Developing a Student-centered Learning Environment*, 2007. Available at: https://www.researchgate.net/publication/305248814_Teaching_nursing_Developing_a_student-centered_learning_environment (accessed 06 December 2024).
 24. Wright, G. Student-Centered Learning in Higher Education. *The International Journal of Teaching and Learning in Higher Education*, 2011, 23, pp. 92-97.
 25. Bidenko, V. I., Selezneva, N. A. Optics of a look at the future. *Higher education in Russia*, 2017, no. 12 (218), pp. 120-132. DOI:10.31992/0869-3617-2019-28-1-34-45
 26. *Enriching 21st Century Language Education: The CEFR Companion volume in practice*. Strasbourg: Council of Europe Publishing (2022). Council of Europe Publishing. Available at: <https://orfee.hepl.ch/handle/20.500.12162/5760>. (accessed 06 December 2024).
 27. Minyar-Beloroucheva, A., Sergienko, P., Vishnyakova, O., Vishnyakova, E. Modern technologies in teaching professionally oriented foreign language to the students of politics. In L. Gómez Chova, A. López Martínez I. Candel Torres (Eds.) *The Proceedings 11th International Conference of Education, Research and Innovation (ICERI2018)*. Seville, Spain: IATED Academy, 2018, pp. 7967-7975. <https://doi.org/10.21125/iceri.2018.0043>
 28. Gromik, N., Litz, D. Study Benefits of Smartphones: Perceptions of Female Emirati Pre-Service Teacher Undergraduates. *Education Sciences*, 2021, no. 11(12), p. 817. DOI: 11, 817.10.3390/educsci11120817.
 29. Bozorgian, H., Shamsi, E. Autonomous use of podcasts with metacognitive intervention: Foreign language listening development. *International Journal of Applied Linguistics*, 2022, no. 32(3). DOI: 10.1111/ijal.12439.
 30. Tymoshchuk, N. M. Podcast application in foreign language learning and teaching: theoretical aspect. *Baltic Journal of Legal and Social Sciences*, 2023, no. 1, pp. 119-126. DOI: 10.30525/2592-8813-2023-1-16.
 31. Brega, O. N., Kruglyakova, G. V. Video podcast technology for distant ESP teaching in team work. *Perspectives of Science and Education*, 2021, no. 50 (2), pp. 459-471. DOI: 10.32744/pse.2021.2.32
 32. Krippendorff, K. *Content Analysis: An Introduction To Its Methodology*. Sage Publications, 2018. Available at: <https://web.stanford.edu/class/comm1a/readings/krippendorff-ch1and4.pdf> (accessed 06 December 2024).
 33. Kaliampos, J. *EFL Learners' Task Perceptions and Agency in Blended Learning*. Narr Francke Attempto, 2022. DOI: 10.24053/9783823395676.
 34. Huang, T., Lammers, J. C. Do Students have Agency? *Language and sociocultural theory*, 2023, no. 9(2). DOI: 10.1558/lst.23366.
 35. Wieczorek, T., Tchumatchenko, T., Carvajal, C., Egl, M. A framework for the emergence and analysis of language in social learning agents. *Nat Commun*, 2024, no. 31; 15(1). p. 7590. DOI: 10.1038/s41467-024-51887-5.
 36. Aysu, S. Today's Two Important Skills: Digital Literacy and Critical Thinking. In: Köksal, D., Ulum, Ö.G., Genç, G. (eds) *Undividing Digital Divide*. SpringerBriefs in Education. Springer, Cham, 2023. Available at: https://doi.org/10.1007/978-3-031-25006-4_4 (accessed 06 December 2024).
 37. United Nations. *United Nations E-Government Survey 2020 – Digital Government in the Decade of Action for Sustainable Development: With Addendum on COVID-19 Response*. United Nations, 2020.
 38. Patti, E. Digital Literacy and Modern Languages: How to Make a Digital Video. *Modern Languages Open*, 2020, no. 39, pp. 1. DOI: 10.3828/mlo.v0i0.296.

Авторы**Брега Ольга Николаевна**

(Россия, Тольятти)

Доцент, кандидат педагогических наук, доцент кафедры
теории и практики перевода

Тольяттинский государственный университет

E-mail: onmatveeva@tltsu.ru

Круглякова Галина Владимировна

(Россия, Тольятти)

Доцент, кандидат педагогических наук, доцент кафедры
теории и практики перевода

Тольяттинский государственный университет

E-mail: gvk.tlt@mail.ru

Authors**Olga N. Brega**

(Russia, Togliatti)

Associate Professor, Cand. Sci. (Educ.),

Associate Professor of the Department of Theory and Practice
of Translation

Togliatti State University

E-mail: onmatveeva@tltsu.ru

Galina V. Kruglyakova

(Russia, Togliatti)

Associate Professor, Cand. Sci. (Educ.),

Associate Professor, Translation Theory and Practice
Department

Togliatti State University

E-mail: gvk.tlt@mail.ru

Вклад авторов**Брега О. Н.:** концептуализация, администрирование
данных, проведение исследования, создание черновика
рукописи**Круглякова Г. В.:** методология, проведение исследования,
формальный анализ, создание рукописи и её
редактирование**Author's contribution****Olga N. Brega:** Conceptualization, Data Curation,
Investigation, Writing - Original Draft**Galina V. Kruglyakova:** Methodology, Investigation, Formal
analysis, Writing - Review & Editing

© Брега О. Н., Круглякова Г. В., 2025

Авторы заявляют об отсутствии конфликта интересов

© Olga N. Brega, Galina V. Kruglyakova, 2025

The author's declared no conflicts of interest