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EXPLORING NEW REALITIES: THE IMPACT OF VIRTUAL REALITY ON MODERN SLA

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The article examines how Virtual Reality (VR) technology is integrated into Second Language Acquisition (SLA) and its impact on learners' communication and cognitive growth. Highlighting the immersive and interactive qualities of VR environments, the study investigates how these tools can go beyond traditional teaching methods by providing rich, sensory-based learning experiences. Specifically focusing on university-level students of the specialty "English as a Foreign Language", the research uses VR applications like Mondly VR and Engage to improve speaking skills, boost motivation, and reduce language learning anxiety. The experiment involved pre- and post-tests centered on speaking, surveys using the Foreign Language Classroom Anxiety Scale, and semi-structured interviews. Results showed a 22% improvement in speaking scores, a 35% increase in learner motivation, and a 40% decrease in anxiety among the experimental group. The study also highlights VR's role in developing critical thinking, digital literacy, and professional skills for future foreign language teachers. By creating authentic and engaging scenarios, VR aligns with constructivist and experiential learning theories, while equipping learners with useful 21st-century skills. This research offers valuable insights into the educational advantages of VR and its expanding importance in SLA research and teacher training.

Key words: *virtual reality, language acquisition, Mondly, education, motivation.*

ЖАҢА АҚИҚАТТЫ ЗЕРТТЕУ: ВИРТУАЛДЫҚ АҚИҚАТТЫҢ ҚАЗІРГІ ЗАМАНҒЫ ЕКІНШІ ТІЛДІ МЕҢГЕРУГЕ ӘСЕРІ

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Мақалада виртуалды ақиқат (VR) технологияларын екінші тілді меңгеру (SLA) үдерісіне енгізу және олардың білім алушылардың коммуникативтік әрі когнитивтік дамуына әсері қарастырылады. VR ортасының иммерсивті және интерактивті сипатын ерекше атап өте отырып, авторлар бұл құралдардың дәстүрлі педагогикалық әдістерден артықшылығын, яғни мазмұнға бай және сезім мүшелерін қамтитын оқу тәжірибесін ұсыну мүмкіндігін зерттейді. Зерттеу шет тілі ретінде ағылшын тілін меңгеріп жатқан университет деңгейіндегі студенттерге бағытталған және Mondly VR мен Engage сынды виртуалды шындық қосымшаларын пайдалану арқылы сөйлеу дағдыларын, мотивацияны арттыру мен тілді үйренуге байланысты мазасыздықты азайтуды көздейді. Эксперименттік бөлім алдын ала және қорытынды тестілеуді, мазасыздық шкаласын қолдана отырып сауалнама жүргізуді және жартылай құрылымдалған сұхбаттарды қамтыды. Нәтижелер сөйлеу дағдыларының 22%-ға артқанын, мотивацияның 35%-ға жоғарылағанын және мазасыздықтың 40%-ға төмендегенін көрсетті. Сонымен қатар, зерттеу VR технологиясының сыни ойлауды, цифрлық сауаттылықты және болашақ шетел тілі мұғалімдерінің кәсіби даярлығын дамытудағы рөлін атап көрсетеді. Креативті әрі танымдық сценарийлерді қолдану арқылы VR конструктивистік және инновациялық оқыту тәсілдерін қолдай отырып, XXI ғасырдың әмбебап құзыреттерін қалыптастыруға ықпал етеді.

Түйінді сөздер: *виртуалды ақиқат, тіл үйрену, Мондли, білім, мотивация.*

ИССЛЕДОВАНИЕ НОВЫХ РЕАЛЬНОСТЕЙ: ВЛИЯНИЕ ВИРТУАЛЬНОЙ РЕАЛЬНОСТИ НА СОВРЕМЕННОЕ ОБУЧЕНИЕ ВТОРОМУ ЯЗЫКУ

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Статья посвящена интеграции технологий виртуальной реальности (VR) в процесс усвоения второго языка (SLA) и их воздействию на коммуникативное и когнитивное развитие обучающихся. Подчеркивая иммерсивный и интерактивный характер VR-среды, авторы исследуют, как эти инструменты способны превосходить традиционные педагогические методы, предлагая насыщенный контекстом и сенсорный опыт обучения. Исследование сосредоточено на обучающихся английскому языку как иностранному на уровне вуза и включает использование приложений виртуальной реальности, таких как Mondly VR и Engage, с целью повышения уровня разговорной речи, мотивации и снижения тревожности, связанной с изучением языка. Экспериментальная часть включала предварительное и итоговое тестирование на основе обучения общению, анкетирование с использованием шкалы тревожности и полуструктурированные интервью. Результаты показали 22% рост навыков говорения и значительное повышение мотивации (на 35%), наряду со снижением тревожности (на 40%) в экспериментальной группе. Кроме того, исследование подчеркивает роль VR в развитии критического мышления, цифровой грамотности и профессиональной готовности будущих преподавателей иностранных языков. При разработке креативных и познавательных сценариев VR поддерживает конструктивистские и инновационные подходы к обучению и способствует формированию универсальных компетенций XXI века.

Ключевые слова: *виртуальная реальность, изучение языка, Мондли, образование, мотивация.*

Introduction. In the digital era, the integration of advanced information and communication technologies has significantly transformed educational paradigms across disciplines. One of the most promising and rapidly evolving innovations in this sphere is VR, a technology that offers learners immersive, interactive, and multisensory environments. Initially conceptualized by Jaron Lanier in 1988 as a digital space created through High-speed computing and interactive devices, VR now includes advanced tools such as Head-Mounted Displays (HMDs), motion tracking systems, and haptic interfaces, all designed to simulate realistic and responsive virtual settings [1, p.29]. According to Gómez-García et al. [2, p.30], VR tool facilitates a compelling sense of presence within artificial environments, thereby allowing learners to engage with content in more authentic and emotionally resonant ways.

Second Language Acquisition (SLA) is defined as the systematic process through which learners develop proficiency in a language other than their first language, encompassing cognitive, linguistic, and social mechanisms that influence comprehension, production, and use of the target language. In the field of SLA, VR introduces novel pedagogical opportunities that extend far beyond the capabilities of traditional

classroom instruction. By replicating real-world linguistic environments, such as virtual marketplaces, airports, or academic settings, VR enables learners to apply language knowledge in contextually meaningful situations. This shift from abstract instruction to experiential learning encourages both constructivist approaches and foundational SLA theories, such as Krashen's Input Hypothesis and Swain's Output Hypothesis, which emphasize the role of comprehensible input and meaningful output in language development. The relevance of digital technology in foreign language education has been recognized in the works of leading Kazakhstani scholars, including D.M. Dzhussubaliyeva, A.K. Mynbayeva, and S.S. Kunanbaeva [3; 4; 5]. Their research highlights the pedagogical implications of digital tools, including VR, for fostering communicative competence and learner autonomy. Furthermore, Mikula [6, p. 22] distinguishes between simulated and interactive VR environments, noting their varying capacities to generate alternative realities and enhance learner engagement. Other international researchers, such as Hu X & Wang S., Castaño-Calle et al., Brian M and Tunur et al. have explored the application of VR in language instruction, offering insights into its efficacy in improving fluency, motivation, and learner confidence [7; 8; 9,10]. Despite the growing body of research, questions remain about how best to implement VR in real-world educational settings and how it impacts long-term language proficiency. This article investigates the technological, pedagogical, and cognitive dimensions of VR-enhanced language learning. By drawing empirical data and theoretical insights, the study aims to contribute to contemporary SLA processes and offer practical recommendations for integrating VR into future instructional design.

Aim and Tasks. This study aims to investigate the pedagogical potential of VR technologies in the context of SLA with a focus on their technological, cognitive, and didactic implications for enhancing learner engagement, communicative competence, and professional preparedness, particularly among future foreign language teachers.

The integration of VR technologies in education has catalyzed transformative shifts across various disciplines, including language learning. Numerous studies have affirmed VR's potential to enhance learner engagement, motivation, and knowledge retention through immersive and interactive environments. For instance, Shadiev et al. conducted a meta-analysis revealing significant learning gains in VR-supported instruction compared to traditional settings [11, p.5885]. Similarly, Shinatai et al. highlighted the ability of VR to promote deeper cognitive involvement and emotional engagement, particularly when learners interact within context-rich, simulated environments [12, p.219].

In the domain of SLA, immersion is considered foundational to successful learning. Krashen's Input Hypothesis (1985) posits that learners acquire language best when exposed to input that is both comprehendsible and slightly beyond their current proficiency level. Complementing this, Swain's Output Hypothesis (1985) emphasizes the need for learners to actively produce language, especially through meaningful interaction. VR-based language instruction is uniquely suited to support both hypotheses by simulating real-world contexts that require spontaneous, communicative output while delivering tailored linguistic input [13, p.93].

Furthermore, VR environments align closely with constructivist and experiential learning frameworks. These theoretical models advocate for active knowledge construction through authentic tasks and learner-centered interactions. In language education, such models are operationalized through immersive VR scenarios, ranging from virtual marketplaces to academic simulations, that mirror real-life communication needs and provide low-risk spaces for language experimentation.

Augmented Reality (AR) overlays the digital world over the physical world. The data can be textual, images, video, audio, and 3D models. AR generally relies on lightweight glasses that are equipped with a projector or a cellphone's camera. Azuma characterized AR as a live or indirect view of the physical world using information that has been augmented virtually with computer-generated image data in real time [14, p.363]. VR, the use of computer modeling and simulation that enables a person to interact with an artificial three-dimensional (3-D) visual or another sensory environment [15, p.309]. Carmigniani states that AR is "a system in which a real object is combined with a virtual model of that real object," and he describes AR as "a real-time direct or indirect view of a physical real-world environment that has been enhanced /augmented by adding virtual computer-generated information to it" [16, p.371].

From a technological standpoint, modern VR systems are increasingly sophisticated, featuring Head-Mounted Displays (HMDs), motion sensors, and haptic feedback, which collectively create multisensory, embodied experiences. According to Makransky and Lilleholt, such multimodal interfaces foster embodied cognition, a process whereby learning is enhanced through physical interaction and sensory engagement. In language learning, this translates into a more concrete understanding of abstract linguistic concepts through gestures, spatial awareness, and contextualized vocabulary use [17, p.227].

Mixed reality combines elements of both AR and VR to augment existing reality with virtual objects that appear to be part of the real world. The headset can utilize sensors to survey the area and identify objects while generating 3D models, which enables users to interact with the real world by superimposing virtual objects. Hein et al describe mixed reality as the human-machine interactions formed by computers and wearables within collaborative real and virtual environments [18, p.34].

Currently, the number of products for learning and practicing foreign languages in VR is relatively small. However, an analysis of methodological sources has allowed for an assessment of existing VR technologies (Table 1).

Table 1. – VR platforms and applications

VR platforms	Description
MONDLY	• Using VR technologies to immerse the user in a language environment allows immersion in real scenarios. • The user communicates with characters by voice, and the system analyzes pronunciation and provides feedback, creating a "live communication" effect. • The virtual teacher or interlocutor corrects errors and offers tips, helps to consolidate vocabulary and grammar in context.
ENGAGE	• Allows to embed videos, presentations, 3D objects, 360° videos and animations into a lesson; • Users are presented as realistic 3D avatars with gestures, facial expressions and voice; • Students work in groups, discuss, draw on a virtual board and complete practical tasks.
ENGLISH 360	• Allows to embed videos, presentations, 3D objects, 360° videos and animations into a lesson; • Users are presented as realistic 3D avatars with gestures, facial expressions and voice; • Students work in groups, discuss, draw on a virtual board, and complete practical tasks.
VIDEO 360	• The student "finds himself inside" the context being studied; • Rich visual material; • Many locations.

The use of VR in preparing foreign language teachers not only fosters information competence but also develops a range of pedagogical skills necessary for success in the modern educational landscape. Applying VR in the educational process opens new horizons, making learning more interactive, visual, and engaging. VR enables the creation of simulations of real situations, which enhances material retention and practical skills development.

Educational VR platforms and applications have emerged as a dynamic category of digital learning technologies with varied features that help to facilitate interactive and immersive pedagogy [19, p.409]. Traditionally, such systems combine hardware and software systems to create environments for work, play, and interaction, such as workplaces, schools, and other institutions. Educational VR applications are usually flexible to accommodate a range of instructional objectives, including individual and group learning, and can be fitted to learners at different ages, fields of knowledge, and levels of difficulty.

Table 2. – Key directions for using VR in education

Motivation and Engagement	Distance learning and remote classes	Safety and Resource Saving
makes the learning process more interesting and interactive	makes it possible to conduct full lessons and lectures in virtual classrooms, which is especially relevant for distance education	allows training to be conducted in a safe environment
use of gamification elements	Students from different cities or countries unite in one virtual space for learning and interaction with the teacher	Many experiments and tests can be carried out virtually, which reduces the cost of materials and equipment
Students interact with objects and the environment rather than just passively consuming information, which promotes better retention	provide access to education for students in remote or hard-to-reach areas	

Significantly, the design and implementation of VR applications for education respect pedagogical requisites, as it will ensure a profitable pass on of technology innovation to learning. This includes matching content to curriculum standards, cognitive appropriateness, as well as addressing concerns related to accessibility, usability, and user protection. To the extent that there are better systems and new and newer platforms, there is also a need for evidence-based design and integration of that technology, highlighting the importance of the two-way working relationship of instructional design, technology development, and research across disciplines (Table 2).

Therefore, technologically, educational VR applications are characterized by the fidelity of visual and auditory presentation, brain-synchronizing user movement with digital information, and real-time feedback. These features allow the creation of real-world environments for learning, which often simulate complicated written texts or a real-life environment that would be otherwise difficult to imitate in the traditional classroom.

Finally, many VR platforms provide insightful data collection showing educators who their students are interacting with, what activities they're doing, and how well they're learning, allowing for adaptation and individualized learning paths.

Research Tasks:

- To analyze theoretical foundations and recent international and local research on the use of VR in SLA, including frameworks related to constructivist, experiential, and embodied learning models, and key SLA theories such as Krashen's Input Hypothesis and Swain's Output Hypothesis.

- To explore the structure and functionality of modern VR platforms (e.g., Mondly VR, Engage) and assess their technological affordances for simulating real-world communicative environments.

- To examine the effectiveness of VR-based language learning environments in improving learners' speaking skills, motivation, and reducing language anxiety through empirical testing with students of the specialty "English as a Foreign language" and to identify key methodological challenges and opportunities related to the design, implementation, and evaluation of immersive VR tools in language education, including accessibility, usability, and student data analysis for personalized learning.

Thus, VR is changing the approach to education, making it more interactive, visual, and accessible for various groups of students.

Materials and Methods. The study involved a total of 30 university-level students aged 18 to 24 in the specialty "English as a Foreign Language". Participants were randomly divided into two equal groups: a control group (n = 15) and an experimental group (n = 15). All participants had an intermediate proficiency level in English (B1–B2, CEFR scale), determined via placement testing prior to the intervention. The study was conducted over a period of eight weeks.

The control group followed a traditional language curriculum focused on textbook-based grammar and vocabulary exercises, written assignments, and classroom discussions.

The experimental group participated in a VR-enhanced curriculum that emphasized real-life language use through immersion and interaction using Oculus Quest 2 headsets and VR applications such as Mondly VR and ENGAGE, selected for their language immersion environments. VR modules simulated real-world scenarios such as shopping, airport navigation, cultural events, and academic presentations.

So, during experimental teaching, VR programs such as Mondly VR and Engage were implemented to create immersion in real scenarios, and the students communicate with characters by voice, and the system analyzes pronunciation and provides feedback, creating a "live communication" effect.

Designs of the experimental teaching were organized into the following three sessions: vocabulary practice (interactive labeling, object manipulation), situational dialogues (guided and spontaneous interactions) and task-based activities (e.g., completing a group task in a virtual museum or solving a problem during a simulated travel experience).

The implementation of VR followed a three-phase instructional design:

During the Preparation Phase, teachers defined learning goals and selected appropriate VR content aligned with communicative objectives. Students received technical orientation, learned basic VR navigation, and were introduced to safety guidelines. Software and hardware configurations were tested to ensure smooth delivery.

The second stage was the Interaction Phase, where students engaged in weekly VR sessions (3 sessions per week × 40 minutes each). Scenarios included both scripted and open-ended conversations within virtual environments. VR served as the main medium for language production and interaction.

The last stage was Post-VR Reflection and Consolidation, where students completed reflection journals, vocabulary tasks, and short writing assignments based on VR experience. Semi-structured group discussions allowed students to share insights and consolidate learning. Instructors connected VR experiences with real-world communicative tasks and classroom-based language instruction.

All these stages of applying VR in English language lessons are depicted in detail in Table 3 below, including the following steps (Table 3):

Table 3. – The stages of applying VR in the experimental group

1. Planning	•Determining the specific educational goals to achieve with VR; •Choosing or creating virtual scenarios and simulations that align with educational goals.
2. Introduction to VR	•Introduction students to VR devices and platforms; Explanation how to use the headsetand naigate the virtual environment. •Ensuring all equipment and verifing students connect to VR resources.
3. Using VR in Teaching	•Launching virtual scenarios and starting the lessons. This includes role-playing games, dialogues in virtual environments, or interactive practice of language structures; •Encouraging students to actively engage in virtual scenarios, ask questions, and organize discussions based on VR experiences.

Continuation of table 1

4. Assessment and Reflection	•Assessing how students performed in VR tasks, how effectively they used the language, and whether they achieved the educational goals; •Gathering feedback from students about their experience with VR.
5. Analysis and Adjustment	•Analyzing lesson outcomes and evaluating the effectiveness of VR in achieving educational goals; •Based on the analysis and feedback, making necessary adjustments to lesson plans, VR content, or technology usage methods.

The stages of applying VR in practical classes are summarized in Table 3, which outlines content alignment, immersive task design, learner autonomy, and post-lesson assessment.

Besides that, to evaluate the impact of VR on language performance and affective factors, the following instruments were used: Speaking section (Pre- and Post-Test) to measure oral language proficiency; Foreign Language Classroom Anxiety Scale (FLCAS) to assess learner anxiety levels; Semi-structured Interviews to explore qualitative learner perceptions and attitudes toward VR integration.

The VR modules and tasks were adapted to be inclusive of students with limited mobility or attention disorders. The use of virtual laboratories and project-based learning in VR allowed all participants to interact meaningfully, regardless of physical constraints.

Results. This section presents empirical findings from an 8-week intervention study involving 30 university-level students in the specialty “English as a Foreign Language”, evenly divided into a control group and an experimental group.

With respect to Research Tasks, pre-and post-testing was organized on measured variables such as speaking proficiency, motivation, and anxiety reduction, according to the TOEFL iBT speaking criteria rubric. As illustrated in Table 4, the experimental group outperformed the control group across all measured variables: speaking proficiency, motivation, and anxiety reduction.

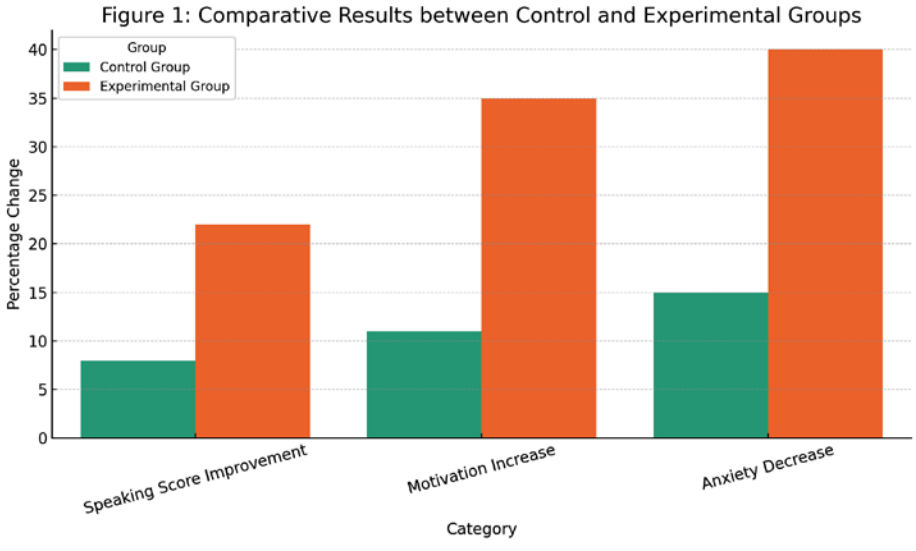
Table 4. – Summary of experimental teaching

Group	Speaking %	Motivation %	Anxiety %
Control	8	11	15
Experimental	22	35	40

Analyzing Speaking Proficiency, it is seen that Students in the experimental group demonstrated a 22% average improvement in speaking scores, compared to only 8% in the control group. This suggests a substantial benefit of engaging in simulated real-world conversations through VR.

Learner motivation increased by 35% in the experimental group, more than triple the gain observed in the control group (11%). Participants attributed this rise to the novelty and interactivity of the VR environment.

Diagram 1 – Comparative results between control and experimental groups showing improvements in speaking scores, motivation levels, and anxiety reduction



Speaking about anxiety reduction, it is demonstrated that the VR group experienced a 40% decrease in foreign language classroom anxiety, compared to a 15% reduction in the control group. This suggests that immersive VR scenarios may create a psychologically safer environment for language experimentation.

Thus, the findings of this study reinforce the growing body of evidence that VR technologies significantly enhance SLA, particularly in the domains of oral communication, learner motivation, and affective engagement for the students in the specialty "English as a Foreign Language". The 22% improvement in speaking scores and a 35% increase in motivation among the experimental group confirm the pedagogical value of immersive, interactive environments. These results align with SLA frameworks such as Long's Interaction Hypothesis, which emphasizes the importance of negotiation of meaning in real-time communication, and Vygotsky's Zone of Proximal Development, wherein scaffolded interaction facilitates linguistic development.

Thematic analysis of semi-structured interviews reinforced the quantitative data. Students described VR-based sessions as: *"More realistic and natural", "Less stressful than traditional speaking tasks", "A fun and engaging way to learn English".* Participants frequently referenced the ability to "practice without judgment" and the sensation of "being there," which enhanced their willingness to speak and experiment with language. The 3D avatars, virtual surroundings, and scenario-based tasks were frequently cited as key contributors to this positive affective experience.

Discussion. The data support the Research task that immersive VR tools significantly enhance second language acquisition by improving oral proficiency, increasing learner motivation, and reducing language-related anxiety. These findings underscore the pedagogical value of VR in bridging the gap between theoretical input and practical communicative use, especially for learners in higher education settings.

As we see, the experimental teaching outcomes indicated that students from the experimental group produced substantive gains in speaking skills relative to baseline, and these gains were qualitatively distinct from the modest improvements observed under traditional instruction. VR's capacity to simulate authentic communicative situations fosters spontaneous language use, turn-taking, and pragmatic competence. Moreover, the embodied and gamified nature of VR lowers learners' affective filters by reducing peer pressure and allowing for private, judgment-free rehearsal. This directly supports Krashen's Affective Filter Hypothesis, highlighting how emotional comfort can accelerate acquisition. As participants reported feeling "more relaxed" and "more willing to take risks" in VR, the medium appears to enhance not just performance, but learner confidence and autonomy.

Additionally, in the experimental group, VR technology fosters embodied cognition, where physical interaction with the environment enhances memory and comprehension. Gestural interaction, spatial orientation, and context-driven visual cues reinforce vocabulary retention and syntactic processing, offering a multisensory scaffold for linguistic input. This supports research by Makransky and Lilleholt and demonstrates VR's unique ability to make abstract language structures more tangible.

In the given study examining the use of Mondly VR, the findings indicate that when the platform was used as a practice tool, some learners showed reduced engagement in explicit language reflection. Although VR technology effectively enhanced situational speaking fluency and learner engagement through immersive scenarios, optimal learning outcomes were observed only when VR activities were combined with structured grammar instruction, guided writing tasks, and systematic instructor feedback. This integrated approach resulted in more consistent gains in accuracy and self-regulated language use.

However, several challenges temper these advantages in this experiment teaching. Cost remains a major barrier, as high-end headsets, software licenses, and maintenance require significant investment. There are also health concerns, such as motion sickness, visual strain, and attention fatigue during prolonged use. Furthermore, teacher readiness and digital pedagogy training are essential prerequisites for effective implementation. Without appropriate support, Oculus glasses become a novelty rather than a tool of pedagogical depth. While challenges remain, the Mondly VR program holds substantial promise in transforming language education from static instruction to dynamic, immersive, and student-centered learning. Institutions seeking to adopt VR technology weigh its affordances against its constraints, ensuring pedagogical alignment and technical sustainability (Table 5).

Table 5. – Advantages and Disadvantages of VR in Language Education

Advantages	Disadvantages
VR creates immersive and interactive environments, making learning more engaging and stimulating.	The cost of equipment and content development is high, limiting access to VR for many educational institutions.
VR allows for realistic simulations and models that help in understanding complex concepts and procedures better.	Technical problems, such as equipment malfunctions or software incompatibility, hinder VR use.
VR is adapted to meet the needs of different learners, offering personalized learning experiences.	Creating high-quality educational content for VR requires time and resources, which limit the availability of suitable content.

Continuation of table 5

Students practice and learn in a safe virtual environment without real-world consequences.	Not all students have access to the necessary equipment, which creates disparities in technological access.
Virtual field trips allow students to visit otherwise inaccessible locations and explore various settings.	Prolonged use of VR causes motion sickness, dizziness, and visual fatigue in some users.
VR platforms support collaborative work and interaction among students from different locations.	Rapid technological advancements require constant updates to equipment and software.
VR enhances critical thinking and problem-solving skills by creating complex learning scenarios.	Teachers need additional training to effectively use VR in the educational process.

Table 5 provides a detailed overview, showing that although VR technology offers numerous benefits, including enhanced engagement, authentic simulations, and individualized learning, it also presents several challenges. High prices, technical challenges, and potential access issues also present significant obstacles that are worth discussing to make the most out of virtual reality in education. Notwithstanding the benefits and potential, it is necessary to consider that VR tools must be used with caution and following the principle of didactic appropriateness, integrating new technologies only when they offer a more efficient option compared to transmissive educational methods.

Conclusion. The integration of VR into SLA represents a paradigm shift in how language learning is conceptualized and delivered. This study, conducted with students in the specialty of “English as a Foreign Language,” has demonstrated that VR-based instruction significantly enhances speaking proficiency, learner motivation, and reduces language-related anxiety by providing immersive, interactive, and emotionally engaging environments. By simulating authentic communicative contexts and promoting spontaneous language use, VR technology enables learners to bridge the gap between linguistic theory and real-world application.

The multisensory and embodied nature of VR facilitates deeper cognitive engagement, supporting principles from both constructivist learning theory and core SLA models, including Krashen’s Input Hypothesis, Swain’s Output Hypothesis, and Long’s Interaction Hypothesis. Furthermore, the reduction in affective barriers, such as peer anxiety and fear of error, underscores VR’s potential to foster learner confidence and autonomy in a way that traditional classroom environments often cannot.

Despite current limitations from the experimental teaching, such as equipment costs, the need for teacher training, and technical constraints, VR platforms and devices hold considerable promise as a complementary tool in SLA. As hardware becomes more affordable and educational platforms more sophisticated, VR is poised to occupy a central role in the future of language education.

To fully harness its potential, ongoing research and pedagogical innovation are essential. Future efforts should focus on scalable integration, adaptive feedback systems, inclusive design, and long-term efficacy. Ultimately, VR is not a replacement for traditional instruction, but a transformative extension, one that can elevate language learning into a more engaging, effective, and learner-centered experience.

Future research should address these gaps by exploring long-term language retention post-VR immersion, integration of AI-based speech feedback for real-time language correction, scalability across institutions with varying digital infrastructure, and universal design principles to ensure accessibility for learners with disabilities. There is also promising convergence between VR and AI technologies, such as voice recognition and natural language processing. This integration may soon enable adaptive language tutoring, where learners receive real-time personalized feedback in simulated environments. As online language training platforms evolve, embedding VR components could significantly enhance the practical application of digital learning resources.

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GENDER AND PEDAGOGICAL ASPECTS OF CAREER ORIENTATION OF EDUCATIONAL ORGANIZATION MANAGERS

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Career orientations are studied in psychological and pedagogical science in the context of solving the problem of developing life plans. Today, there is no doubt about the need to transform public gender consciousness. This has prompted the adoption of the Gender Equality Strategy in the Republic of Kazakhstan, one of the objectives of which is to develop "new models of gender self-awareness". The aim of this study is to identify and analyze gender differences in the axiological sphere, particularly in the career orientations of educational institution leaders. Career orientations are defined as specific forms of expression of individual value orientations and social attitudes that determine the choice of professional strategies, leadership style, and the specifics of organizational behavior. The study emphasizes that career attitudes not