

APPLICATION OF SIMULATORS AND SIMULATION SYSTEMS IN LANGUAGE TRAINING IN MILITARY INSTITUTIONS

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Annotation: This article is devoted to the issues on applications of simulators and simulation systems in military language training, emphasizing their role in preparing personnel for multinational environments. It reviews the experiences of the U.S., UK, France, and Australia, highlighting how simulations enhance language skills, cultural understanding, and decision-making in realistic scenarios. The paper also addresses challenges such as high costs, lack of qualified instructors, and technical limitations, proposing solutions like open-source platforms and specialized training for educators. Case studies demonstrate the effectiveness of simulators in improving operational readiness and communication skills.

Keywords: simulators, language training, military institutions, virtual reality, intercultural communication, military education, peacekeeping operations, decision-making.

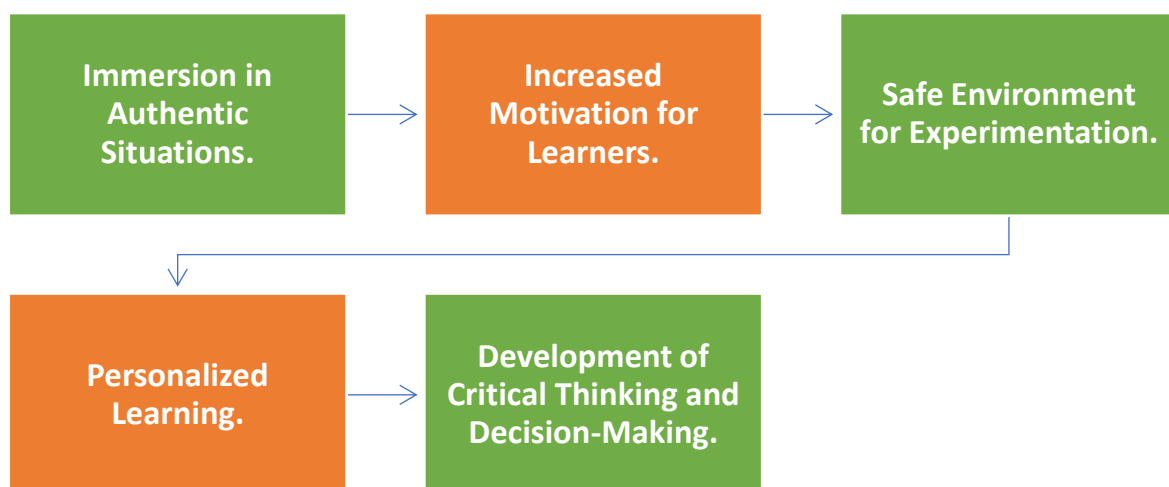
Annotatsiya: Ushbu maqolada harbiylashtirilgan ta'lim muassasalarida til o'qitishda simulyatorlar va simulyatsion tizimlarining qo'llanilishi masalalariga bag'ishlangan bo'lib, ushbu texnik imkoniyatlarning ko'pmillatli muhitda mutaxassislarni tayyorlashdagi ahamiyatiga alohida e'tibor qaratiladi. Maqolada AQSH, Buyuk Britaniya, Fransiya va Avstraliya tajribalari ko'rib chiqilib, simulyatsiyalarning til ko'nikmalari, o'zaro tushunish va real vaziyatlarda qaror qabul qilish qobiliyatini rivojlantirishdagi roli va muloqot ko'nikmalarini yaxshilashda samaradorligi ta'kidlanadi. Shuningdek, yuqori xarajatlar, malakali o'qituvchilarning yetishmasligi va texnik cheklovlar kabi muammolarga ham to'xtalib o'tiladi.

Kalit so'zlar: simulatorlar, til ta'limi, harbiy muassasalar, virtual reallik, madaniyatlararo aloqa, harbiy ta'lim, tinchlik o'rnatish operatsiyalari, qaror qabul qilish.

In period of global integration, expanding international cooperation, and active participation of military specialists in peacekeeping and humanitarian missions, foreign

language proficiency has become a vital element of personnel training. Military institutions are faced with the task of preparing highly qualified specialists who must effectively operate in multilingual environments, especially when working in foreign countries and with various ethnic groups. In this context, simulators and simulation systems play a crucial role in the language training of military personnel, offering new opportunities to replicate real communication scenarios and develop language skills in safe and controlled settings.

Simulators and simulation systems, based on modern information and virtual technologies, allow the creation of training situations that closely resemble real-life conditions. These systems can recreate scenarios military personnel may encounter abroad, ranging from negotiations with local populations to participation in briefings and diplomatic missions. The key advantages of using such technologies include:



1-picture: The key advantages of using such technologies.

Immersion in Authentic Situations. Simulators allow the modeling of various professional and social scenarios, such as negotiations, interactions with local populations, interrogations, or tasks within intercultural and multicultural contexts. Cadets gain a unique opportunity not only to learn vocabulary and grammar but also to master the socio-cultural nuances of communication, greatly enhancing the effectiveness of language instruction.

Increased Motivation for Learners. The interactive nature of simulators encourages active participation in the learning process. Cadets can make decisions and observe the consequences

in real time. Game elements and the ability to select strategies and actions significantly increase interest and motivation in learning the language, allowing more dynamic engagement.

Safe Environment for Experimentation. Simulators create a secure space for practicing skills and decision-making. Cadets can make mistakes and explore different strategies without the real-world risks, enabling better absorption of learning material without fear of negative consequences.

Personalized Learning. Simulation systems can be tailored to the language proficiency level and individual needs of each learner, focusing on developing specific language skills such as listening, speaking, reading, and writing. The systems offer objective feedback, enabling not only the identification of errors but also recommendations for improvement.

Development of Critical Thinking and Decision-Making. Simulators require learners to analyze situations quickly, make decisions in a foreign language, and evaluate the outcomes. This process develops critical thinking and the ability to make operational decisions under stress and uncertainty—skills essential for military professionals in real combat or peacekeeping environments.

As a foreign experience in the use of simulators in language training. Many leading military educational institutions worldwide are already actively integrating simulation technologies into their language training programs. This global experience demonstrates the effectiveness and versatility of simulators in preparing specialists to operate in international settings.

United States: Army has invested significantly in virtual and augmented reality simulations for training purposes. In 2020, unclassified open-source contracts for such training totaled an estimated \$3 billion, with projections to exceed \$19 billion by 2027[1]. These simulations have proven cost-effective compared to traditional training methods, eliminating expenses related to travel, munitions, and fuel. They also provide a safe environment for soldiers to practice various scenarios, including language and cultural interactions, thereby enhancing readiness and reducing risks associated with live training exercises[3].

United Kingdom. The Royal Military Academy Sandhurst uses simulations to prepare cadets for peacekeeping operations. These exercises emphasize the development of communication skills with civilians and foreign counterparts, allowing cadets to not only refine their language abilities but also master effective interaction strategies in international scenarios. The British military places particular emphasis on developing negotiation and trust-building skills crucial for peacekeeping missions[4].

France. In France, simulators are used to train military personnel for international operations, particularly for conducting negotiations and briefings in foreign languages. French military academies design scenarios that simulate crisis situations and international collaboration, helping cadets acquire not only language proficiency but also diplomatic and strategic approaches that are integral to international service[5].

Australia. The Australian military employs simulations for training in languages essential for communication with Asia-Pacific partners as well as indigenous languages. These simulations help cadets develop both language and cultural competencies, which are critical in a multilingual region where cultural differences can significantly impact the course of diplomatic and peacekeeping operations[4].

Despite the clear advantages, the implementation of simulators in military language education faces several challenges such as: high Cost of Development and Implementation, lack of Qualified Personnel, technical Limitations and Content Updates.

High Cost of Development and Implementation. Creating high-quality simulators requires significant financial investment in both software development and necessary hardware infrastructure, which can be a serious obstacle for many institutions with limited budgets.

We can solve this by utilization exist platforms and open-source solutions, develop modular simulators adaptable to specific needs and seek additional funding through government grants or partnerships with the private sector.

Lack of Qualified Personnel. Effective use of simulators requires instructors who not only possess language skills but also understand simulation technologies. We can organize professional development courses for educators, create interdisciplinary teams involving IT and pedagogy specialists, attract experts in educational simulation development.

Technical Limitations and Content Updates. Simulation systems require regular updates and technical support, which can be difficult to maintain with limited resources. For this we have to establish long-term agreements with developers for software maintenance and updates, create internal centers for simulator support and content adaptation.

Training (SBT), encompassing live, virtual, and constructive simulations, plays a vital role in enhancing operational readiness, decision-making, and coordination among military personnel. In the context of multinational operations, such simulations not only prepare soldiers for tactical challenges but also foster cultural and linguistic interoperability, which is essential for effective collaboration among allied forces[6].

Language proficiency is a crucial component of interoperability. As highlighted in Finabel's *Training and Simulation* publication, SBT can serve as a powerful tool for improving communication skills. By integrating language elements into realistic mission simulations, military personnel can practice using foreign languages in contextually rich environments - such as during joint operations, negotiations, or interactions with local populations. This contextualized learning not only enhances linguistic proficiency but also deepens cultural understanding.

To effectively harness the potential of simulation in language training, military institutions should develop integrated modules that combine language instruction with operational training. International collaboration will be key in creating standardized, interoperable training systems. Investment in advanced technologies - especially those that support real-time language processing - will also be critical to the success of such programs.

As a conclusion we can note the usage of simulators and simulation systems in military language training represents a major advancement in educational quality. These technologies make it possible to create realistic and varied learning scenarios, develop intercultural communication skills, and enhance decision-making under uncertainty. International experience demonstrates that successful implementation requires not only high-quality software but also comprehensive institutional, pedagogical, and technical support. Overcoming the barriers to simulator integration will foster more effective educational processes and the preparation of highly qualified personnel ready to operate in diverse, multilingual environments.

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