

DEVELOPING THE READINESS OF STUDENTS TO USE REVERSIBLE AND IMMERSIVE TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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Abstract:

As we all know, it is related to introducing students to new technologies, making their learning process more effective and creating an environment for their creativity and practice. This article shows what methods are used to form students' readiness to use reversible and immersive technologies in the educational process and how they affect the development of students' creativity, analysis, and practices. This article, which reveals the topic of students' readiness to use reversible and immersive technologies in the educational process, can be widely used by students as well as independent researchers.

Keywords: reversible, immersive, education, training, technology, audience, environment.

In the technologically advanced world, the field of education is also undergoing modernization. In order to further increase the fun of education, the main changes in the information system using reversible and immersive technologies are presented[1].

Today, new technologies in the educational process play an important role in providing students with an innovative learning environment[48]. The subject of educational technology includes technical and pedagogical methods and tools that increase the effectiveness of learning and teaching[49]. This is the basis of the success of the e-learning revolution in recent years[2]. Technology-based learning outperforms traditional classroom-based learning in terms of quality by providing a variety of opportunities and practices that stimulate motivation and lead to fun, effective, and meaningful learning[3].

Learning is characterized by stable and continuous changes in what a person or group of people know and can do. Tracking changes and learning progress is one of the things that educational technologists need to understand with teachers and students[4].

If we look at the history of educational technology, technologies are constantly changing and updating[5].

What might some of the emerging technologies look like.

Reversible and immersive technologies appear in this process and are seen as an important tool in this direction. First, let's talk about immersive technologies[6].

Immersive technologies are technologies that connect users and allow new customization in online virtual experiences[8]. They are used to reduce all of its shortcomings while giving all users special action and experience. Immersive technologies are used to further expand the

opportunities for direct user experience and training through technology[7]. Among these technologies, instead of many types of hybrid technologies:

1. **** Virtual reality (VR) ****: Through VR technology, it allows users to enter a complete social environment, that is, to get a new life experience[9]. VR is used in the educational process, in the arts, through activities such as a teacher-student meeting or a trip to a new place[10].
2. **** Augmented Reality ** (Augmented Reality, AR)****: AR technology, techniques or data enable users to update the products used. It can use a webcam, smartphone, tablet or AR view. AR is used to make learning materials more interesting and less challenging for students[11].
3. **** 360-Degree Experience ** (360-Degree Experience)* ****: Through the 360-degree experience technology, users can get a new life experience through a camera or webcam. They are used in in-depth products that can be written in 360 degrees, wherever they are moved to a resort, city or new location[12].

Immersive technologies are used to change the overall experience, involve new people or users, create new, analyze[13].

It is worth noting that AR, VR and MR are changing the way we interact with the digital world. Investments in this sector are booming: in 2021, venture capital invested nearly \$4 billion in AR and VR startups[14]. The emerging technology of meta-existence - shared virtual space - has a huge potential, its value is estimated at 4-5 trillion dollars by 2030. Companies continue to develop new virtual reality headsets and peripherals[15]. For example, the upcoming AR/VR headset Vision Pro has generated a lot of excitement. The number of users of AR devices in enterprises is increasing, and enterprises are actively exploring the possibilities of this technology in various fields - from entertainment to healthcare and industry[16].

Now let's talk about reversible technologies. Reversible technologies are mainly technologies that help to act according to the specified content, which do not belong to the general to mixed technologies[17]. They are the main mechanisms that organize the transformation of educational materials, their presentation in a useful and understandable way for students. More broadly, reversible technologies can be used to increase students' initial knowledge and improve their "base" on their documents and lessons[18]. These technologies are used to add new functionality to application products, such as handouts, flashcards, web pages, or e-books, or other educational materials. In addition, reversible technologies are used in many different fields - art, economics, science, commerce and law[19]. The main feature of reversible technologies is that they are used to update business processes and to use programs that do not require basic or embedded actions to benefit from them. They are: effective educational process and further development of student choice[50].

in facilitating the work of the lesson

in updating teaching methods

used in development in research and innovation laboratories[20].

In this regard, reversible technologies can be an important source of efficiency in educational institutions[21].

In addition, reversible technologies "reverse" the learning process to help students better understand the learning material[22]. For example, in math lessons, flipping technologies can help students reduce difficulty, increase imagination, and increase analysis. Immersive technologies, on the other hand, are used to make students live a live experience during the learning process, for example, through virtual reality (VR)[23].

Let's give information about ways to use reversible technologies for students.

1. **** Interactive lessons ****: Lessons are conducted through interactive technologies , allowing students to participate in a layered learning process[24]. Virtual classes help students to put their knowledge into practice and carry out their own analysis and self-development.
2. **** Gamers and t alabas ****: Students participate in the learning process with the help of gamers and use technology. It serves to change the learning process by having students approach and challenge each other through questions.
3. **** Reversible Virtual Reality ****: Using reversible virtual reality software for students, they can understand and experience learning materials by engaging them in fun activities[25]. For example, learning by seeing molecules in chemistry classes or participating in historical events in history classes[51].

Let's also provide information about ways to use immersive technologies for students.

1. **** Virtual Reality (VR) D arses ****: By teaching students through a 3D model, taking them to a specific location and being in a local learning environment , as well as an official copy of it by coming, for example, it is possible to bring a generation down to the old village life, allowing them to travel in new places[26].
2. **** Augmented reality (QR) training methods ****: Engage students in interesting activities in the learning process by using QR technologies, showcases related to educational materials calls for participation. It encourages patient and independent learning of students[27].
3. **** Simulation and M odel making ****: Students use virtual models during the learning process to learn practical knowledge by working in the field of study. For example, in a zoo process, a teacher can teach students through virtual animal models to explain anatomy and physiology.

Let's express our thoughts about the results. The results of students' use of reversible and immersive technologies in the educational process can be complex and multi-category[28]. These technologies are aimed at making students more productive and interesting, more patient, developing analytical and creative skills, learning information and using it in practice.

may be some common results of using reverse and immersive technologies :

1. **** Increase Learner Interest ****: Reverse and immersive technologies provide new and exciting ways for learners to increase interest and interest[29]. These technologies deliver learning materials through interactive and scene-based technologies that engage students in a layered learning process.
2. **** Developing Practices ****: Immersive technologies, such as virtual reality (VR) and augmented reality (AR), provide students with effective ways to learn and develop practices. This leads students to practice and introduce their students to a particular topic[30].
3. **** Enhancing creativity and creativity ****: Immersive technologies provide opportunities for students to create a virtual hotel, create environments, design and model in 3D to enhance creativity and creativity. It allows students to develop themselves in expressing themselves, seeking and creating new approaches[31].
4. **** Learning and understanding educational materials ****: Reverse technologies - help to learn and understand educational materials in new ways. For example , in analysis, to reduce the difficulty of studying learning materials, creating them in interactive scenes, as well as through data management ensures that learning is good for students[32].
5. **** Cooperative Learning ****: Immersive technologies help students connect with each other through online lessons, tutorials, and interactive production activities to create an environment for team collaboration. These technologies provide superior opportunities for students to develop cooperative learning and collaboration through interconnected learning materials. These results show how the use of reverse and immersive technologies plays an important role in students' self-learning, analysis and creativity development[33].

In the category of processes and applications of advanced technologies, learning analytics, customized learning systems and personalized learning in small-scale situations provide a robust and dynamic representation of the learner in terms of prior knowledge and performance, interests, motivation, preferences and even mood. are being tested as extensions of previous smart tutoring systems that take into account[34].

Technology-based learning, augmented and virtual realities are among emerging technologies that are slowly finding their way into learning and teaching situations[35].

new and emerging technologies affect educational content? Some envision a world where the accumulated knowledge and wisdom of humanity is accessible to all[36], along with automated learning, learning devices and mechanisms. Some even predict the loss of schools and teachers in such an environment. While we clearly recognize that formal learning environments and informal learning resources and environments are changing, we do not have a clear picture of the future[37].

Summary. The following conclusions are important for the formation of students' readiness to use reverse and immersive technologies:

1. **** Introducing Technology ****: It is important for students to learn about advanced technologies and how they can use them in the learning process[38]. For this purpose, they can be introduced to technologies through competitions, seminars, online classes, technology handling and experiments[39].
2. **** Creation of interactive lessons and activities ****: It is necessary to organize interactive lessons and interesting activities in order to increase students' readiness to use reverse and immersive technologies[40]. How to present educational materials in an interactive and interesting way, conduct online practices with students, teach them to learn how to work with technologies is of serious importance[41].
3. **** Collaboration and creation of additional educational materials ****: It is important to create virtual platforms, online communities for students to use collaborative technologies[42]. It is necessary to organize activities to expand interaction with students through additional educational materials, articles, video lessons and other technical technologies, to teach them to ask each other questions[43].
4. **** Individual support of students ****: Each student has his own learning direction[44]. Therefore, the structure of an individual support system in the use of technologies helps students to choose a certain direction, to study remotely or to work in virtual laboratories.
5. **** Data monitoring and evaluation ****: It is important to establish a monitoring system to check and evaluate the learning results of students[45]. This system helps determine how students work with technology, what they learn, and helps improve individual support for their development.
6. **** Enhancing entrepreneurship and field experience ****: Students should develop entrepreneurship and practical experience in the field through the use of reverse and immersive technologies in the learning process. Virtual labs can provide opportunities for production in all areas, how they are performed in the field, and explore advanced practices and programs[46].
7. **** Teaching how to use technology ****: Teaching students how to use technology and teaching them how to use it in their learning process is important for them to have compliance. In this way, it is possible to prepare them to make good use of a certain technology and perform innovative work on it[47].

Therefore, technologies developing in society and industry play an important role in updating the educational process. Preparing students for the effective use of reverse and immersive technologies will help them develop practical data processing, creativity and additional skills.

REFERENCES:

1. Qodirova, A. (2023). TA'LIM JARAYONIDA TERMIZIY FIKRLARIDAN FOYDALANISHNING ILMIY-NAZARIY MASALALARI. " ПЕДАГОГИЧЕСКАЯ АКМЕОЛОГИЯ" международный научно-методический журнал, 1(3).
2. Qodirova, A. (2023). IMOM AT-TERMIZIY SHAXSINING PSIXOLOGIK-PEDAGOGIK VA FIKRLARINING QIYOSIY-ANALITIK JIHATLARI. " ПЕДАГОГИЧЕСКАЯ АКМЕОЛОГИЯ" международный научно-методический журнал, 1(3).
3. Qodirova, A. (2022). УЛУФ МУҲАДДИС ИМОМ АТ-ТЕРМИЗИЙ ФАОЛИЯТИНИНГ ПСИХОЛОГИК ЖИҲАТЛАРИ. Science and innovation, 1(B7), 1086-1090.
4. Kodirova, A. B. (2022). PSYCHOLOGICAL AND PEDAGOGICAL ASPECTS OF THE USE OF THE MYSTICAL IDEAS OF AL-HAKIM AT-TERMIZI IN THE EDUCATIONAL PROCESS. Web of Scientist: International Scientific Research Journal, 3(12), 1281-1286.
5. Kodirova, A. B. (2022). ANALYSIS OF PSYCHOLOGICAL VIEWS IN THE WORKS OF AL-HAKIM AT-TERMIZI ACCORDING TO THE SCIENTIFIC CONTENT AND THE THEORY OF SUFISM. Web of Scientist: International Scientific Research Journal, 3(12), 1287-1292.
6. Қодирова, А. Б. (2019). The views of Al Khakim At-Termizi on the theory of cognition. Psixologiya, (1), 88-90.
7. Қодирова, А. Б. (2022). АБУ АБДУЛЛОҲ МУҲАММАД ИБН АЛИ ҲАКИМ ТЕРМИЗИЙНИНГ “ОҚИЛЛАР ВА АЛДАНГАНЛАР” АСАРИДА НАФС ТАРБИЯСИНИНГ ПСИХОЛОГИК ОМИЛЛАРИ. Science and innovation, 1(B3), 119-124.
8. Отамуродова, Ш. Қ. О. (2023). УЗЛУКСИЗ ТАЪЛИМ ТИЗИМИДА ДИВЕРСИФИКАЦИЯ ТАМОЙИЛИНИ ТАТБИҚ ҚИЛИШ МУАММОЛАРИ. Innovative Development in Educational Activities, 2(19), 150-154.
9. Отамуродова, Ш. К. О. (2019). Особенности использования устного народного творчества в развитии речи учащихся начальных классов. Научные горизонты, (6), 97-102.
10. Otamurodova, S. Q. (2023). TA'LIM TIZIMINI DIVERSIFIKATSIYALASH JARAYONLARI VA UNING ZARURATI. Interpretation and researches, 2(1).
11. Отамуродова, Ш. (2022). Diversifikatsiya sharoitida to 'g 'ri tashkil etilgan o 'quv jarayoni talabalarni pedagogik faoliyatga tayyorlash omili sifatida. Современные

- тенденции инновационного развития науки и образования в глобальном мире, 1(3), 396-398.
12. Arapov, G. N. (2023). Interpretation of the light industry lexicon in modern linguistics. ISJ Theoretical & Applied Science, 7(123), 2023.
13. Gayrat, A. (2021). Linguocultural study of light industry lexicon.
14. Namozovich, A. G. (2023). Expression of Ethnocultural Realia in the Lexicon of Light Industry in English, Uzbek and Russian. Web of Semantic: Universal Journal on Innovative Education, 2(3), 102-105.
15. Arapov, G. (2023). METHODS OF LINGUACULTURAL ANALYSIS OF LIGHT INDUSTRY LEXICON. Interpretation and Researches, 1(20).
16. Gayrat, A. (2022). GRAMMATICAL FEATURES OF THE LEXICON OF LIGHT INDUSTRY. European International Journal of Multidisciplinary Research and Management Studies, 2(12), 173-176.
17. Achildieva, N. (2022). Основные Понятия О Демографии И Демографической Лексике. Science and innovation, 1(B8), 2380-2382.
18. Bakhtiyorovna, A. N. Lecturer, Russian And World Literature Department Termez State University. Achildieva Nigora Bakhtiyorovna//Description Of Time And Place In Katherine Mansfield's Stories "Miss Brill"," Taking The Veil, 44, 44.
19. Ачилдиев, Н. (2023). Омонимия демографической лексики в русском языке: многозначность и контекстуальные особенности. Традиции и инновации в исследовании и преподавании языков, 1(1), 103-113.
20. Ачилдиева, Н. (2023). АНТОНИМИЯ В ДЕМОГРАФИЧЕСКОЙ ЛЕКСИКЕ РУССКОГО И УЗБЕКСКОГО ЯЗЫКОВ. UNIVERSAL JOURNAL OF ACADEMIC AND MULTIDISCIPLINARY RESEARCH, 1(7), 95-100.
21. Ачилдиева Нигора. (2023). МНОГОЗНАЧНОСТЬ ДЕМОГРАФИЧЕСКОЙ ЛЕКСИКИ В РУССКОМ ЯЗЫКЕ: КОНТЕКСТУАЛЬНЫЕ АСПЕКТЫ И СЕМАНТИЧЕСКИЕ ОСОБЕННОСТИ. Innovations in Technology and Science Education, 2(15), 741–746.
22. Ачилдиева, Н. Б. (2023). ИССЛЕДОВАНИЕ ДЕМОГРАФИЧЕСКОЙ ЛЕКСИКИ В МИРОВОМ ЯЗЫКОЗНАНИИ. Innovative Development in Educational Activities, 2(12), 43–47.
23. Ачилдиева, Н. Б. (2023). ИСТОРИЯ ФОРМИРОВАНИЯ ДЕМОГРАФИИ. Экономика и социум, (3-1 (106)), 269-272.
24. Mengaliyevna, N. S., & Qizi, X. S. M. (2022). CHARACTERISTICS AND STEPS OF USING TECHNOLOGY FOR THE DEVELOPMENT OF CRITICAL THINKING IN

- STUDENTS. European International Journal of Multidisciplinary Research and Management Studies, 2(03), 60-70.
25. Mengaliyevna, N. S., & Qambardinovna, U. G. (2022). Scientific and theoretical foundations for the formation of social intelligence at school age. Asian Journal of Research in Social Sciences and Humanities, 12(5), 245-248.
26. Zebiniso, K. (2022). Forming of universals culture values and upbringing learners idea of peace. Web of Scientist: International Scientific Research Journal, 3(6), 1830-1834.
27. Kurbonova, Z. (2023). USING THE TEACHING OF MAHMUD AZ ZAMAXHARI IN IMPROVING THE SYSTEM OF SPIRITUAL AND MORAL EDUCATION OF STUDENTS. World Bulletin of Social Sciences, 21, 121-123.
28. Курбанова, З. (2023). Mahmud az Zamaxshariyning axloqiy-tarbiyaviy qarashlari. Современные тенденции психологической службы в системе образования: теория и практика, 1(1), 81-86.
29. Qurbonova, Z. (2023). AXLOQIY TARBIYA ME'YORLARI. Innovative Development in Educational Activities, 2(17), 71-77.
30. Turaeva, G. E. (2022, February). Some aspects of educating students to become highly qualified and competitive personnel. In Conference Zone (pp. 163-165).
31. Turaeva, G. E. (2021). Improving the efficiency of the educational process using computer technology. ACADEMICIA: An International Multidisciplinary Research Journal, 11(8), 407-410.
32. Turaeva, G. E. (2021). The effectiveness of the use of computer technology in the educational process. Asian Journal of Multidimensional Research, 10(8), 90-93.
33. Turayeva, G. (2023). COMPUTER DIDACTIC GAMES IN ORGANIZING THE EDUCATIONAL PROCESS. World Bulletin of Social Sciences, 23, 70-72.
34. Turaeva, G. E. (2021). PERSON-CENTERED TECHNOLOGY OF COLLABORATIVE EDUCATION. CURRENT RESEARCH JOURNAL OF PEDAGOGICS, 2(08), 68-71.
35. Салохитдинова, Н. (2021). Development prospects of primary education integration (on the example of exact and natural sciences). Общество и инновации, 2(7/S), 221-225.
36. Salokhitdinova, N. M. (2020). PROVIDING MEMBERSHIP BETWEEN TESTING AND INTERNATIONAL ASSESSMENT PROGRAMS FROM PRIMARY SCHOOL MATHEMATICS (An example of elementary school math). Scientific and Technical Journal of Namangan Institute of Engineering and Technology, 2(12), 14-19.
37. Салохитдинова, Н. (2022). Aniq va tabiiy fanlar tushunchalarining integratsiyasi (Aniq va tabiiy fanlar misolida). Современные тенденции инновационного развития науки и образования в глобальном мире, 1(3), 368-371.

- 38.Salohiddinova, N. (2022). INTEGRATION OF EXACT AND NATURAL SCIENCES CONCEPTS (On the example of exact and natural sciences). Emergent: Journal of Educational Discoveries and Lifelong Learning (EJEDL), 3(11), 158-165.
- 39.Salokhitdinova, N. M. (2021). Current state of science integration in primary education. Asian Journal of Multidimensional Research (AJMR), 10(3), 533-537.
- 40.Салохитдинова, Н. (2021). Перспективы развития интеграции начального образования (на примере точных и естественных наук). Общество и инновации, 2(7/S), 221-225.
- 41.қизи Салохитдинова, Н. М. (2023). БОШЛАНҒИЧ СИНФЛАРДА ИНТЕГРАЦИЯЛАШГАН ТАЪЛИМНИ ТАКОМИЛЛАШТИРИШ (Аниқ ва табиий фанлар мисолида). RESEARCH AND EDUCATION, 2(4), 123-132.
- 42.Khamzaeva, D. S. (2020). THE PROBLEM OF SEASONALITY IN TOURISM. Theoretical & Applied Science, (11), 337-340.
- 43.Khamzaeva, D. S. (2021). ASSESSMENT OF THE SEASONAL FACTOR IN REGIONAL TOURISM AND THE WAYS OF ITS USE. Happy New Year, 25.
- 44.Samarovna, X. D. (2020). RAQAMLI IQTISODIYOT SHAROITIDA TURIZM INDUSTRIYASINING TARAQIY RIVOJLANISHIDA TURISTIK MAHSULOTLAR TAKLIFINI MAVSUMIYLASHTIRILISHI UCHUN USLUBIY YONDASHUVLARNING SHAKLLANISHI. Иқтисодиётда инновация,(SPECIAL 2).
- 45.Хамзаева, Д. (2022). ТУРИСТИК МАҲСУЛОТЛАР ТАКЛИФИНИ МАВСУМИЙЛАШТИРИШНИ ТАКОМИЛЛАШТИРИШ ЙЎЛЛАРИ ВА ИСТИҚБОЛЛАРИ: https://doi.org/10.55439/ECED/vol23_iss3/a52. Economics and education, 23(3), 337-341.
- 46.Донаева, Ш. (2022). Refleksion o 'qitishga innovatsion yondashish va refleksiv texnologiyalarni ta'lim jarayoniga tatbiq etishning psixologik jihatlari. Общество и инновации, 3(2/S), 367-372.
- 47.Abduraimovna, D. S. (2023). TYPES OF REFLEXIVE LEARNING TECHNOLOGIES IN THE PEDAGOGICAL EDUCATION SYSTEM. Open Access Repository, 4(03), 31-40.
- 48.Abduraimovna, D. S. The Culture of Environmental Safety and the State of Its Formation. International Journal on Orange Technologies, 2(10), 95-98.
- 49.Jumaeva, H. (2020). Some Shapes of Spiritual Attack, Its Influences and Outcomes for Educating the Youth. European Journal of Research and Reflection in Educational Sciences Vol, 8(2).

50. Djumayeva, H. M. (2021). DEVELOPING THE PEDAGOGICAL MECHANISM OF PREVENTING STUDENTS FROM INTERNAL THREATS. *Oriental renaissance: Innovative, educational, natural and social sciences*, 1(10), 331-338.
51. Джумаева, Х. М. (2018). ГЛОБОЛЛАШУВ ДАВРИДА, ЁШЛАРНИ МАЪНАВИЙ ТАХДИДЛАРДАН ҲИМОЯ ҚИЛИШ ОМИЛЛАРИ. *Интернаука*, (46-2), 70-71.
52. Djumayeva, H., & Turayev, A. (2022). METHODOLOGY OF COMBINATORY PROBLEMS SOLVING IN THE TIMSS INTERNATIONAL ASSESSMENT PROGRAM IN PRIMARY CLASS MATHEMATICS LESSONS. *Eurasian Journal of Academic Research*, 2(12), 1224-1228.
53. Ashurkulovna, A. Z. (2023). PHRASEOLOGY-AS A LINGUISTIC DISCIPLINE. *World Bulletin of Social Sciences*, 22, 27-30.
54. Aliyeva, Z. (2023). SCIENTIFIC CONSIDERATIONS ON PHRASEOLOGICAL UNITS WITH ORNITHONYM COMPONENTS IN ENGLISH AND UZBEKI. *Journal of Agriculture & Horticulture*, 3(10), 84-88.
55. Бобокулова, Д. М. (2021). БОШЛАНҒИЧ СИНФ ЎҚУВЧИЛАРИДА ТЕЖАМКОРЛИК ВА ИҚТИСОДИЙ ТАРБИЯНИ ШАКЛЛАНТИРИШНИНГ ПЕДАГОГИК АСОСЛАРИ. *Academic research in educational sciences*, 2(NUU Conference 1), 204-207.