

Virtual Reality in Education: Impact Analysis

Research Prompt

"Evaluate the influence of virtual reality technology on education and training."

Contents

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Search Results

Understanding Virtual Reality Technology

Search terms:

- *Applications of virtual reality technology*
- *Components of virtual reality technology*
- *Definition of virtual reality technology*

Applications of virtual reality technology

Relevant Excerpt	Citation Source
Virtual reality technology has found new applications in industry over the last few years. Medical literature has for several years predicted a break-through in this technology for medical education....	[Virtual reality in medical education]. (semanticscholar.org)
Gaming is an obvious virtual reality application as are virtual worlds but there are a whole host of uses for virtual reality - some of which are more challenging or unusual than others. Where is virtual reality used? Here is a list of the many applications of virtual reality: Some of these will be more familiar than others but visit any of these to find out more about a particular use of virtual reality....	Applications Of Virtual Reality - Virtual Reality Society (vrs.org.uk)
Virtual Reality (VR) technology has shown enormous potential in educational, commercial, and medical fields. The recent COVID-19 outbreak highlights a poor global performance in communicating epidemic knowledge to the public....	Virtual Reality Research: Design Virtual Education System for Epidemic (COVID-19) Knowledge to Public (semanticscholar.org)
... The entertainment industry is after all a multi-billion dollar one and consumers are always keen on novelty. Virtual reality has many other, more serious, applications as well. There are a wide variety of applications for virtual reality which include: Architecture Sport Medicine The Arts Entertainment Virtual reality can lead to new and exciting discoveries in these areas which impact upon our day to day lives....	What is Virtual Reality? - Virtual Reality Society (vrs.org.uk)
... In the industrial sector, the ability to apply to requests with a high degree of customization and complexity implies a longer cycle time. The application of virtual reality (VR) is a promising approach that will help minimize errors and increase safety. Virtual reality environments are also applied to operational tasks	INFORMATION TECHNOLOGY FOR TRAINING THE PERSONNEL OF ENTERPRISES BY

Relevant Excerpt	Citation Source
in industrial settings as an experiential learning approach that has shown good results in areas such as occupational safety, medicine, maintenance and mining....	MEANS OF VIRTUAL REALITY (semanticscholar.org)

Components of virtual reality technology

Relevant Excerpt	Citation Source
... This immersive technology can induce the human brain into believing about a virtual world. Here, we look into some key aspects of virtual reality technology. What is Virtual Reality (VR) Technology Virtual reality is a technology that takes the users to a 3D artificial environment using a blend of interactive software and hardware....	Virtual Reality (VR) Technology - How it Works, Components, Types ... (electricalfundablog.com)
The basic components of a VR application or program are interaction and immersion. Human-computer interaction is achieved through multiple sensory channels that allow individuals to explore virtual environments through senses....	Application of Virtual Reality in Cognitive Rehabilitation (semanticscholar.org)

Definition of virtual reality technology

Relevant Excerpt	Citation Source
... Here, we look into some key aspects of virtual reality technology. What is Virtual Reality (VR) Technology Virtual reality is a technology that takes the users to a 3D artificial environment using a blend of interactive software and hardware. This 3D virtual environment allows the user to interact with people and objects using large images and appropriate audio devices....	Virtual Reality (VR) Technology - How it Works, Components, Types ... (electricalfundablog.com)

Virtual Reality in Education

- [Enhancing Learning Experience with Virtual Reality](#)
- [Simulations and Virtual Laboratories](#)
- [Virtual Field Trips and Cultural Immersion](#)

Enhancing Learning Experience with Virtual Reality

Search terms:

- *Benefits of virtual reality in education*
- *Virtual reality and knowledge retention*
- *Virtual reality and student engagement*

Benefits of virtual reality in education

Relevant Excerpt	Citation Source
... With Virtual Reality, the possibilities opened up to plenty of educational advancement. So there are many advantages of using Virtual Reality in education. Like all technologies, VR also has its benefits & drawbacks....	8+ Benefits of Virtual Reality in Education (prosperityforamerica.org)
... Top 8+ Benefits of Virtual Reality in Education The idea of providing education through virtual reality is gaining popularity among educational institutions and parents globally due to its benefits. Seven of the top benefits of using virtual reality technology in the field of education are as below. 1. Enhanced Access Education is said to be one of the things that everyone has equal rights....	8+ Benefits of Virtual Reality in Education (prosperityforamerica.org)
... "The use of Mursion [VR] technology has provided American University's teacher candidates the opportunity to practice science instruction before they work with 'real' students, enhancing our teacher candidates' confidence and skill," says Carolyn Parker, director of the Master of Arts in Teaching program in American University's School of Education. What Are the Benefits of AR and VR in Education? Before looking into some of the benefits of virtual reality in education, let's define what virtual reality is and how it differs from augmented reality....	Benefits of Virtual Reality in Education: Tools & Resources ... (american.edu)
Virtual reality applications in the education domain have many benefits: they engage students, arouse students' curiosity, ease the communication of information, and motivate the students to improve their learning and performance. Despite literature showing that there has been a clear development in the education domain that shows improvement in students'	The Practicality of Virtual Reality Applications in Education: Limitations and Recommendations (semanticscholar.org)

Relevant Excerpt	Citation Source
learning skills, its application in Higher Education Institutions (HEIs) is limited to certain courses and fields....	
... Benefits of virtual reality for prospective students The QS 2019 International Student Survey revealed that 39% of students saw 'virtual tours of the institution as being influential in their decision-making process. Virtual reality offers numerous benefits to prospective students. Those living far from campus can virtually visit the institution, saving time, money and reducing environmental impact....	The Impact of Virtual Reality on Student Engagement and Learning ... (guscanada.com)

Virtual reality and knowledge retention

Relevant Excerpt	Citation Source
... Interpretation: Results from this study provide evidence that training in neuroanatomy in an immersive and interactive virtual-reality environment may be an effective neuroanatomy learning tool that warrants further study. They also suggest that integration of virtual-reality into neuroanatomy training may improve knowledge retention, increase study motivation and decrease neurophobia.	Immersive and interactive virtual reality to improve learning and ... (nih.gov)
... The study was conducted with two groups of participants: a VR interaction group and a tablet based 2D interaction group. The enhanced spatial interaction capability of VR was hypothesized to promote knowledge retention and improve the instructional utility of immersive learning solutions.	Virtual Reality Learning Environments for Vocational Education: A Comparison Study with Conventional Instructional Media on Knowledge Retention. (semanticscholar.org)
... Benefits of Virtual Simulation â Virtual simulation has demonstrated to be an effective pedagogy that supports student learning outcomes. Research has shown that virtual simulations can improve knowledge retention, clinical reasoning, and student satisfaction with learning. Other benefits of virtual simulation include the ability for educators to provide experiential learning in a manner that easily complies with social distancing and infection control guidelines....	Virtual Simulation versus Immersive Virtual Reality: What's the ... (ubisimvr.com)
In fact, studies show that the use of virtual reality in training can significantly increase retention and improve empathy. The early creation and adoption of virtual reality and immersive technologies are deeply seeded in learning and development, going back as far as 1929, when the U.S. military created an electromechanical virtual reality headset to teach pilots....	3 Ways Virtual Reality Training Is Producing Better Outcomes (trainingindustry.com)
... For this research study, we not only tested how much procedural knowledge the trainees could learn from the VR training compared with traditional media training (video plus instruction manual), we also specifically focused on how well the knowledge could retain in a certain amount of time. The finding of this study shows that VR training can help trainees learn procedural knowledge, and also shows that VR training can help enhance procedural knowledge retention in terms of recall error....	Immersive Virtual Reality Training to Enhance Procedural Knowledge Retention (semanticscholar.org)

Virtual reality and student engagement

Relevant Excerpt	Citation Source
<p>... The example I have discussed here is just a glimpse of our vast VR content Library. Virtual Reality is used in education to enhance student engagement with their study. VR creates the real world around us....</p>	<p>Benefits of VR in Education - fotonVR (fotonvr.com)</p>
<p>Virtual reality has recently become accessible and may support student engagement. The purpose of this project was to describe students' engagement and experiences with virtual reality in a first-year nursing course on anatomy, physiology, and health assessment....</p>	<p>Nursing students' engagement and experiences with virtual reality in ... (nih.gov)</p>
<p>... Conclusion The future is here, it's now! Virtual reality is definitely changing the way students learn. Old, traditional methods are being replaced by futuristic solutions like VR Labs, which are also offered by i **XR Labs**....</p>	<p>VR Labs - Increasing Student Engagement with Virtual Interactions (ixrlabs.com)</p>
<p>Virtual reality (VR) is gaining momentum in higher education and student recruitment. University Canada West's (UCW) offers a 360 Virtual Experience tour of their Vancouver House campus, allowing prospective students to explore the facilities and gain insights into campus life virtually....</p>	<p>The Impact of Virtual Reality on Student Engagement and Learning ... (guscanada.com)</p>
<p>It provides unique learning experiences to students that would otherwise not have been possible through conventional methods like PowerPoint presentations. How VR Drives Student Engagement Virtual reality is transforming the way educational content is delivered. It doesn't just allow students to view learning materials....</p>	<p>How VR Apps Increase Student Engagement VEDX (vedx.io)</p>

Simulations and Virtual Laboratories

Search terms:

- *Virtual laboratories and practical learning*
- *Virtual reality and scientific experiments*
- *Virtual reality simulations in education*

Virtual laboratories and practical learning

Relevant Excerpt	Citation Source
... On the other hand, virtual laboratories in the learning process can help students learn an object that cannot be presented in the classroom. By using virtual laboratories, students learn to use industry apparatus through virtual forms. This research aims to overcome the problem of practical learning in VHS, especially on practical learning of micro power generation through the virtual laboratory....	Virtual Laboratory to Support a Practical Learning of Micro Power Generation in Indonesian Vocational High Schools (semanticscholar.org)
... The gap occurred in practical learning of micro power generation Indonesian VHS. On the other hand, virtual laboratories in the learning process can help students learn an object that cannot be presented in the classroom. By using virtual laboratories, students learn to use industry apparatus through virtual forms....	Virtual Laboratory to Support a Practical Learning of Micro Power Generation in Indonesian Vocational High Schools (semanticscholar.org)
... This review study revealed that virtual labs are effective as they improve students' conceptual understanding, laboratory or practical skills, and motivation and attitudes towards biology. We recommend the use of virtual labs in teaching as a means of actively involving students in safer and more cost-effective scientific inquiry.	Effectiveness of Virtual Laboratories in Teaching and Learning Biology: A Review of Literature (semanticscholar.org)
... There is a requirement to provide a simple method to enable lecturers to create their own content for their laboratory tutorials. Research has been undertaken into developing generic models to enable the semi-automatic creation of virtual learning tools for subjects that require practical interactions with the lab resources....	Digital Twinning remote laboratories for online practical learning (semanticscholar.org)

Virtual reality simulations in education

Relevant Excerpt	Citation Source
<p>Virtual reality (VR) simulations present novel opportunities for clinical education. Research in this area is burgeoning around questions related to perception about VR modality, adoption of the technology, and educational outcomes VR simulations can help facilitate....</p>	<p>Modeling Educator Use of Virtual Reality Simulations in Nursing Education Using Epistemic Network Analysis (semanticscholar.org)</p>
<p>... This approach is, however, expensive and time-intensive. Virtual reality (VR) education simulation may improve skill acquisition in a cost-effective and time-sensitive manner. We developed a novel trauma VR simulator (TVRSim) for providers to apply ATLS principles....</p>	<p>Trauma bay virtual reality—A game changer for ATLS instruction and assessment (semanticscholar.org)</p>
<p>... These VR experiences improve learning outcomes and help students build important interpersonal skills such as empathy, collaboration, and social skills needed for the future. Virtual reality is a hugely powerful teaching tool and the future of education! If you want to find out more about the advantages of virtual reality in education, head over to our Benefits of VR page!...</p>	<p>Advantages of Virtual Reality in Education - ClassVR (classvr.com)</p>
<p>... Even before the pandemic, it has become particularly challenging for education systems to supply learning opportunities that provide students with hands-on pedagogical experiences necessary to develop practical skills, especially for programs that require the use of laboratories. As a response, educators are starting to rely on VR simulations to develop learning experiences that would otherwise not be easily accessible to students. VR simulations can provide students with practical training opportunities without pressure, danger, and allowing for repeated opportunities to practice....</p>	<p>Can Virtual Reality simulators develop students' skills? (worldbank.org)</p>
<p>... VR simulations can be conducive to higher student motivation and presence, two channels through which VR training simulations can influence student learning. As a result, VR simulations have been regarded as a pedagogical method with the potential to increase student learning. Is Virtual Reality training successful at developing student's skills?...</p>	<p>Can Virtual Reality simulators develop students' skills? (worldbank.org)</p>

Virtual Field Trips and Cultural Immersion

Search terms:

- *Cultural immersion through virtual reality*
- *Virtual reality and global education*
- *Virtual reality field trips*

Cultural immersion through virtual reality

Relevant Excerpt	Citation Source
... The challenge is how to do it effectively and at scale. This is the power of Virtual Reality-based Immersive Learning. Immersive Learning leads to better depth of processing in the brain, resulting in better skill acquisition and retention....	VR Leadership Training Opportunities Strivr Webinar (strivr.com)

Virtual reality and global education

Relevant Excerpt	Citation Source
... With virtual reality, children who have to face limitations to education through the typical means for various reasons can access any piece of knowledge they want and learn it in the best form through virtual reality. Virtual reality also promoted education in distance modes, which has been the case for many students since the rise of the global pandemic. Virtual reality also removes the unrealistic educational experience, as in a video call, and makes it more realistic and appealing to the students. 2....	8+ Benefits of Virtual Reality in Education (prosperityforamerica.org)
... Distance learning and language barriers become less of a problem. Virtual reality can provide built-in translations making education more accessible. Virtual reality in the classroom can help create 'whole science lab' experiences, allowing a better understanding of complicated concepts....	Benefits of Virtual Reality (VR) in Education (onix-systems.com)
... VirtualSpeech and Public Speaking VR, for instance, are using photorealistic environments that help students prepare for gaining self-confidence in public speaking. 10. Distance Learning with VR Virtual reality in school education helps students and teachers overcome time, cities, continents. One can attend any lectures or interesting events in any place on Earth with just a few actions....	10 Benefits Of Virtual Reality In Education (opengeekslab.com)

Relevant Excerpt	Citation Source
How Can Virtual Reality Help Students? Virtual reality lets students learn through experience. Using virtual and augmented reality as immersive learning tools, students can travel the world, explore the impossible, delve deep into complex concepts and experience learning directly in the palm of their hand - all from a safe, secure and familiar environment: the classroom! These incredible opportunities mean there are SO many advantages of using virtual reality in education!...	Advantages of Virtual Reality in Education - ClassVR (classvr.com)
... All these things they do from their classroom only and learn about everything along the way. With Virtual Reality, the possibilities opened up to plenty of educational advancement. So there are many advantages of using Virtual Reality in education....	8+ Benefits of Virtual Reality in Education (prosperityforamerica.org)

Virtual reality field trips

Relevant Excerpt	Citation Source
With Virtual Reality (VR) Field Trips, we can provide engaging and immersive learning experiences for our students. Regardless of grade level or content area taught, there are endless possibilities for exploring virtual reality....	Top 10 Virtual Reality (VR) Field Trips for Students - Nearpod Blog (nearpod.com)
... Virtual Field Trips & College Tours Many educational institutes are giving the experience of field trips through virtual reality to their students. A virtual college tour is also a great option to help you figure out which college is the best option for you....	8+ Benefits of Virtual Reality in Education (prosperityforamerica.org)
... Unlike textbooks that only offer illustrations and descriptions, VR can virtually transport students to anywhere in the world. Students can explore virtual locations via VR field trips. 3. Facilitate Collaborative Learning Studies have shown that effective collaboration can increase engagement when students form stronger connections with their peers....	How VR Apps Increase Student Engagement VEDX (vedx.io)
... Students will explore various scenes through virtual reality experiences as inspiration for writing their own poetry. Use these virtual reality field trips for students We have an opportunity to innovate and re-imagine learning as we bring new ideas into our classrooms. Using Nearpod immerses students in different learning experiences or traveling with VR trips, especially during hybrid or distance learning....	Top 10 Virtual Reality (VR) Field Trips for Students - Nearpod Blog (nearpod.com)
... Why use virtual field trips in the classroom? Through VR field trips, we can take students around the world and create authentic, real-world learning experiences while boosting student engagement in learning and sparking curiosity! As we look for activities and tools to keep students engaged, it is the perfect opportunity to explore emerging technologies like augmented and virtual reality....	Top 10 Virtual Reality (VR) Field Trips for Students - Nearpod Blog (nearpod.com)

Virtual Reality in Training and Professional Development

- [Skills Training and Simulation](#)
- [Virtual Reality for Medical Training](#)
- [Virtual Reality for Professional Skills Development](#)

Skills Training and Simulation

Search terms:

- *Simulation-based training with virtual reality*
- *Virtual reality and workplace readiness*
- *Virtual reality for skills training*

Simulation-based training with virtual reality

Relevant Excerpt	Citation Source
... CI surgery training should pivot on objective performance assessment for reaching pre-defined competency before cadaver – or real-life surgery. Simulation-based training provides a structured and safe learning environment for initial training....	Cochlear implant surgery: Learning curve in virtual reality simulation training and transfer of skills to a 3D-printed temporal bone – A prospective trial (semanticscholar.org)
... VRSS trainees wear an Oculus Rift headset on their head and hold one Oculus Touch wireless hand controller in each hand. The simulation starts in a virtual training room with guidance to help the trainee get comfortable working in the virtual environment. The trainee is represented by an avatar, with the ability to view only their hands....	The Project – Virtual Reality Surgery Simulator (VRSS) (smu.edu)
Trainees enter a 360 degrees , active learning environment, experiencing sights and sounds that dissolve the barrier between virtual and actual reality. Using the headset and controllers, trainees look, speak, and move about freely in a 3D virtual setting, interacting with simulated real-world tools, machinery, and other trainees and instructors. Critically, with Virtual Reality, workplace scenarios that were once too difficult, expensive, or dangerous to train for, (such as emergency protocols and disaster preparedness, hazardous material spills, realistic heights training, etc.), become vastly more practical, cost-effective, and safe in an immersive simulation....	What Is VR Training? - PIXO VR (pixovr.com)

Relevant Excerpt	Citation Source
<p>... Human anatomy is a difficult subject, and in best-case scenarios, students may have the chance to practice surgeries once on a cadaver prior to performing actual surgery. With VR, surgical training improved by providing realistic simulations for many types of surgical procedures. Soon, doctors and students will be able to create models and test theories and scenarios that they cannot done in the 'classical way' using cadavers....</p>	<p>Benefits of Virtual Reality (VR) in Education (onix-systems.com)</p>
<p>Methods: An educational randomized controlled trial was conducted to test the ability of a stand-alone training simulation to improve the clinical skills of health care professionals in alcohol screening and intervention. The "virtual reality simulation" combined video, voice recognition, and nonbranching logic to create an interactive environment that allowed trainees to encounter complex social cues and realistic interpersonal exchanges. The simulation included 707 questions and statements and 1207 simulated patient responses....</p>	<p>Virtual reality skills training for health care professionals in alcohol ... (nih.gov)</p>

Virtual reality and workplace readiness

Relevant Excerpt	Citation Source
<p>Social Work educators Megan Gandy and Jacki Englehardt, alongside students Rachael Pellegrino and Abbi Davis, embarked on Play Higher to address the shortage in the behavioral health workforce in West Virginia. The project applies gamification to build career interests and readiness, using virtual reality and simulation. It introduces players to a "day in the life" of a behavioral health worker....</p>	<p>WVU researchers using virtual reality gaming to address behavioral ... (wvu.edu)</p>

Virtual reality for skills training

Relevant Excerpt	Citation Source
<p>... VR headsets can immerse employees in a simulated environment, where avatars act out challenging situations. The VR environment enables employees to practice soft skills learning in a safe, life-like simulation. Simulation can also be more cost-effective than risking a trainee losing an account or mishandling a situation....</p>	<p>5 examples of VR's use in soft skills training TechTarget (techtarget.com)</p>
<p>... The findings show that the employees are not prepared for critical situations and need proper soft skills training. This paper proposes virtual reality as a platform for real situation training, including feedback and in-training evaluation.</p>	<p>The Perception of Soft Skills and Their Training at Hotel Front – Office in Connection to CoVid-19 Pandemics (semanticscholar.org)</p>

Relevant Excerpt	Citation Source
<p>... Employees get the chance of hands-on and practical experience in a safe, risk-free environment. From health & safety training through to training in intricate technical tasks, virtual reality can help to hone skills, boost performance and improve collaborative working practices. Working in a construction environment can be hazardous and having a highly trained and proficient workforce is the key to minimising safety risks....</p>	<p>VR Training: Examples of how it's Helping Businesses in 2023 ... (futurevisual.com)</p>
<p>Students are often lacking these skills even though they are desired skills to have both for academic success and in the workplace. For our research, we are exploring using virtual reality to teach four professional development skills to students. These skills are leadership, teamwork, communication and ethics....</p>	<p>Virtual Reality Activities for Teaching Engineering Students Professional Development Skills (semanticscholar.org)</p>
<p>... Both leave employers with either unsafe or ineffective training options: Passive classroom training methods have lower retention and recall rates, and real-world field training comes at a high risk of injury to the trainee and/or trainer. Using virtual reality (VR) training solutions, employers can leverage the fully immersive and photorealistic virtual environments to train employees and effectively gauge both skills competence and emotional reactions. A trainee may be familiar or even proficient with equipment and procedures at ground level, but employers need to ensure that knowledge recall and decision-making is efficient when the trainee has to face the added pressure of being at the top of a skyscraper, standing atop a ladder, or simply working on the second story of your facility....</p>	<p>VR Training for Ensured Safety and Knowledge Retention EHS ... (ehstoday.com)</p>

Virtual Reality for Medical Training

Search terms:

- *Surgical simulations with virtual reality*
- *Virtual reality and medical skills acquisition*
- *Virtual reality in medical education*

Surgical simulations with virtual reality

Relevant Excerpt	Citation Source
... Results The 3D anatomic structure of pulmonary vessels and a clear vision into the space between the lesion and adjacent tissues were successfully appreciated during preoperative simulation. Surgeons could easily evaluate the real patient's anatomy in preoperative simulations to improve the accuracy and safety of actual surgery. The VR software and HMD allowed surgeons to visualize and interact with real patient data in true 3D providing a unique perspective....	Developing a virtual reality simulation system for preoperative planning of thoracoscopic thoracic surgery (semanticscholar.org)
VR surgical simulation can reduce the number of errors that could be fatal to patients, putting them at ease and saving lives. â SURGEONS Surgeons can use medical VR Surgery simulation to test new devices and technology in a risk-free environment. Physicians, and the entire surgical support staff are free to build knowledge about new procedures and practice their skills....	VR Surgery Simulator Ghost Medical (ghostproductions.com)
... The simulation can be used with commercially available computer gaming hardware that currently costs less than USD \$1,500. Low-cost VR simulation has the potential to reduce the time and cost to train surgeons to perform surgical oncology procedures, as well as both improve and audit quality...	Creating a low-cost virtual reality surgical simulation to increase surgical oncology capacity and capability (semanticscholar.org)
... A categorization of cutting techniques relevant to the context of VR simulations was also studied and applied to the four techniques previously studied. Finally, the applicability of these techniques in a scenario of surgical simulation with VR is discussed.	Study of Cutting Techniques in Simulations with Virtual Reality (semanticscholar.org)
... Safety trials can also be conducted by imitating the outside environment. Virtual Reality in Healthcare Healthcare professionals are able to access virtual models of human anatomy before major surgeries. This way, they are better prepared to face any challenges that they might encounter while operating on a real human body....	Virtual Reality (VR) Technology - How it Works, Components, Types ... (electricalfundablog.com)

Virtual reality and medical skills acquisition

Relevant Excerpt	Citation Source
Fundamental Surgery keeps pace with the level of innovation through its software-first, haptic-enhanced solution that can be used with a variety of hardware. Clinical research confirms that virtual reality training can deliver full immersion and situational awareness to significantly impact medical education, and has the ability to shorten the learning curve.	Fundamental Surgery: Home (fundamentalsurgery.com)
... Conclusion: The results indicate that the application of virtual reality capabilities plays an important role in improving the performance of different medical groups. According to the results, it can be suggested that virtual reality capabilities should be used to train different medical groups based on their individual and collective needs.	The Applications of Virtual Reality Technology in Medical Groups Teaching (semanticscholar.org)
... Demographic multivariable analysis demonstrated no statistically significant association of age, gender, gaming skills/activity with the outcome. The novel medical imaging VR simulation learning tool facilitated technical skill acquisition, equal to, or slightly better than traditional laboratory training. Ongoing data collection will evaluate the impact this VR software has on the undergraduate medical imaging student....	The use of virtual reality simulation to improve technical skill in the undergraduate medical imaging student (semanticscholar.org)
Virtual reality fits ideally with a surgeon's need to build up their experience by performing procedures multiple times to reach the required level of proficiency. VR training can also provide a safe but realistic environment for doctors and nurses working in A&E departments, as well as for paramedics responding to emergency calls....	VR Training: Examples of how it's Helping Businesses in 2023 ... (futurevisual.com)
... How virtual reality and extended reality are advancing patient care. UCF uses both Microsoft HoloLens and Oculus headsets, as well as a variety of prepackaged simulations....	How AR & VR in Healthcare Enhances Medical Training ... (healthtechmagazine.net)

Virtual reality in medical education

Relevant Excerpt	Citation Source
... Virtual Reality in Medical Education System Students may delve deeper into the human body and gain new experiences from a different perspective via VR applications for education. InMind helps showcase brain anatomy....	10 Benefits Of Virtual Reality In Education (opengeekslab.com)
... Development of Medical Skills Doctors not only need to know many procedures that they may rarely ever use but they need to perform the procedures flawlessly and quickly when the time arises. With the use of virtual reality, medical students can perform these procedures in a fully immersive situational experience. Beyond complicated medical procedures, students can also use medical virtual reality training for more routine procedures that can be lifesaving....	VR Medical Training: Advanced Virtual Reality Medical Training Elara (elarasystems.com)

Relevant Excerpt	Citation Source
<p>... Innovative uses of technology can provide significant benefits in today's populations, especially for the Generation Z, who closely follow technological developments and can adopt them quickly. Education and medicine are among the major fields where virtual reality has led to significant transformations in recent years. In this review article, the applications of virtual reality in the fields of education and medicine are examined within the framework of scientific research....</p>	<p>Applications of Virtual Reality in Education and Medicine: A Review of the Past, Present, and Future Outlook (semanticscholar.org)</p>
<p>As VR encompasses different modalities, tools, and applications, there is a need to explore how VR has been used in medical education. Objective The objective of this scoping review is to map existing research on the use of VR in undergraduate medical education and to identify areas of future research....</p>	<p>Virtual Reality in Medical Students' Education: Scoping Review (semanticscholar.org)</p>
<p>Virtual simulation is one of the types of technology used in medical education and related sciences. Virtual simulation provides practical and clinical medical education in a safe, cost-effective, reproducible, and flexible learning environment where students can practice over and over in a standard environment....</p>	<p>Virtual reality-based medical education versus lecture-based method in teaching start triage lessons in emergency medical students: Virtual reality in medical education (semanticscholar.org)</p>

Virtual Reality for Professional Skills Development

Search terms:

- *Soft skills training with virtual reality*
- *Virtual reality and communication skills*
- *Virtual reality for leadership development*

Soft skills training with virtual reality

Relevant Excerpt	Citation Source
... Simulation can also be more cost-effective than risking a trainee losing an account or mishandling a situation. Here are five soft skills where companies are using VR training....	5 examples of VR's use in soft skills training TechTarget (techtarget.com)
... The learner discovers how to stand up to and counter biases in a constructive way. Soft skills training with Immersive Learning While there are dozens of soft skills to teach soft skills to employees that are needed to be successful in the workplace, not all of them are meant to be taught in VR. VR workplace training is not a "magic bullet."...	4 ways to teach workplace soft skills with VR Strivr blog (strivr.com)
... -Josh Bersin, global L&D analyst Amid the clamor, Virtual Reality (VR) training in the workplace has emerged as a powerful soft skills training tool. Using VR in soft skills training for employees Dozens of Fortune 1000 companies are using VR training in the workplace to teach and build on employees' soft skills. Key benefits of VR training in the workplace include: The training influences real-world behavioral changes and delivers unique, actionable data and insights....	4 ways to teach workplace soft skills with VR Strivr blog (strivr.com)
In the largest study of VR soft skills training for a large-scale enterprise deployment, PwC selected employees from a group of new managers in 12 PwC US locations to take the same unconscious bias training course in one of three learning modalities: classroom learning, e-learning, or a virtual reality soft skills training course created in collaboration with Talespin....	VR Soft Skills Training Study (talespin.com)
... Explore our catalog of soft skills training content. OR Learn how to bring VR into your soft skills coursework to improve outcomes.	VR for Soft Skills Training - PIXO VR (pixovr.com)

Virtual reality and communication skills

Relevant Excerpt	Citation Source
... So, in summary virtual reality helps education by creating immersive lessons that are engaging, memorable and impactful for students. These VR experiences improve learning outcomes and help students build important interpersonal skills such as empathy, collaboration, and social skills needed for the future. Virtual reality is a hugely powerful teaching tool and the future of education!...	Advantages of Virtual Reality in Education - ClassVR (classvr.com)
It can be said that virtual reality technology has provided a unprecedented platform for showing and exchanging information. Meanwhile, it has gradually modified the tedious and rigid man-machine interface to be user-friendly....	Research on theory and practice of virtual reality technology in national environmental art design (semanticscholar.org)
The objective was to develop a virtual reality simulator to improve communication skills and compare its results with a traditional workshop based on cases and theoretical content explained through video. This is a randomized and controlled clinical trial, with a pretest and a posttest....	Development of Communication Skills Through Virtual Reality on Nursing School Students (semanticscholar.org)
... Screen-based VR simulators or virtual worlds are the most frequently used systems. The nontechnical skills addressed in VR simulation include mainly teamwork, communication, and situation awareness....	Virtual Reality Simulation in Nontechnical Skills Training for Healthcare Professionals (semanticscholar.org)
Virtual reality offers risk free and contactless learning. Currently, little is known about what topics of nursing are adopted for VR simulations and how their design meets various educational goals....	Virtual reality simulations in nurse education: A systematic mapping ... (nih.gov)

Virtual reality for leadership development

Relevant Excerpt	Citation Source
... 3. Leadership training development VR can also help participants develop their leadership skills. Leaders and leaders-in-training can participate in VR simulations of difficult one-on-one discussions or group interactions, such as meetings. Simulations include employees with varying degrees of enthusiasm, emotional intelligence and performance levels, and the trainees must respond to them in the most effective way possible....	5 examples of VR's use in soft skills training TechTarget (techtarget.com)
... Some platforms can integrate with the speaker's presentation materials, such as a slideshow or other visuals. 3. Leadership training development VR can also	5 examples of VR's use in soft skills training

Relevant Excerpt	Citation Source
<p>help participants develop their leadership skills. Leaders and leaders-in-training can participate in VR simulations of difficult one-on-one discussions or group interactions, such as meetings....</p>	<p>TechTarget (techtarget.com)</p>
<p>... A way to address this question is to take advantage of virtual environments to recreate real-life situations that might arise in performance-based assessments. We propose virtual reality (VR) as a very promising tool to observe various leadership related behavioral patterns during dynamic, complex and realistic situations. By seamlessly embedding assessment methods into virtual learning environments, VR can provide objective assessment methods with high ecological validity....</p>	<p>Virtual Reality as an Emerging Methodology for Leadership Assessment and Training (semanticscholar.org)</p>
<p>For the skills associated with successful military leadership, our inability to model human behavior to the necessary degree of fidelity in constructive simulations requires that new interactive designs be developed. The ICT Leaders project supports leadership development through the use of branching storylines realized within a virtual reality environment. Trainees assume a role in a fictional scenario, where the decisions that they make in this environment ultimately affect the success of a mission....</p>	<p>Branching Storylines in Virtual Reality Environments for Leadership Development (semanticscholar.org)</p>
<p>... "They can make mistakes and learn from those mistakes without any of the negative consequences associated with them, like tripping over your words, losing your train of thought, or panic" Benefits of VR in leadership development</p> <p>1. VR can provide leadership training in a safe, practice environment This is the most obvious benefit of using VR. It provides opportunities for training leaders in safe, secure practice environments....</p>	<p>Future Of Leadership Development: Virtual Reality & Corporate ... (colinjamesmethod.com)</p>