# Importance of Virtual Reality in Education: Analytical Essay

Education is the most important thing in our current society and the knowledge we gain from it has been a top priority for the development of the whole world since the ancient times. People are constantly evolving and try to obtain more knowledge easier, faster and more effectively. In the period we are going through where technology is everything, we can benefit in the area of education and virtual reality is the next step for that evolution.

Most technologies have been designed to help the people to have a quick access to infinite information like google but while knowledge has become more accessible to people that doesn't mean it is more educational. The current approach has two major drawbacks. Firstly, teaching techniques are aimed on presenting facts, but that does not help the people be more educated it only makes them be more informed on something. Secondly, a lot of people have many difficulties in understanding all this information that is received in short time period and they become bored, disengaged, they wonder if there is a point in learning them in the first place and at the end, they do not even care to actually pay attention and learn.

The name virtual reality comes from the definition of each of those words, "virtual" and "reality". The definition of "virtual" is 'near' and for "reality" is what a human being experiences (like in everyday). So, the term "virtual reality" basically means 'near-reality'. This could refer to anything, but it refers to a specific type of reality emulation. Is also a term to describe a three-dimensional, made by computer, environment. Virtual reality is a computer simulation that creates an image of a world that appears to our senses in much the same way we perceive the real world, or "physical" reality. In order to convince the brain that the synthetic world is authentic, the computer simulation monitors the movements of the participant and adjusts the sensory display or displays in a manner that gives the feeling of being immersed or being present in the simulation. Concisely, virtual reality is a means of letting participants physically engage in some simulated environment that is distinct from their physical reality. The main goal of virtual reality is to create in the user the illusion of being in an environment that can be perceived as a believable place with enough interactivity to perform specific tasks in an efficient and comfortable way. There are two main factors that describe the virtual reality experience from the physical and psychological points of view: immersion and presence. Virtual reality as an implementation of this concept has been recognized as an advance technology allowing learners to use it to interact with both virtual and real worlds at the same time bringing in potential enhancements to the learning process.

Virtual reality can be used in classrooms to improve the quality of learning and commitment. It can completely transform the way that the current education is delivered by allowing people to experience the things they read about without being compromised to word explanations or book illustrations only. For example, rather reading about ancient Rome in books, students are able to wear a virtual reality headset and be instantly transported to Rome. This would be way more education and interesting at the same time for students to experience. Moreover, technologies such as science labs are very interesting because they allow students to fully understand how things work during practical experience. Virtual reality gives us power to scale and make learning more active and engaging. Being able to visualize complex functions or mechanisms makes them easier to comprehend. Visceral reactions to what we are experiencing are

fundamental to forming memories. Virtual reality makes it easy to engage students the whole time, making experiences really memorable. In addition, virtual reality is not only for content consumption, but can be also used for content creation by giving students the opportunity to use powerful tools you can help them boost up their creativity.

When we mention virtual reality the first thing that comes in our mind usually is entertaining purposes in the gaming industry, but things are slowly changing. According to a recent survey (Greenlight VR) preference for education exceeds the preference for gaming content with 63.9% over 61%. This means that there is a huge potential and demand for educational virtual reality experiences. Virtual reality can be used to catch the interest of the student in different topics like geography, history or literature by giving a deeply hypnotic senses of place and time. Just imaging to be able to travel across the globe and visit whatever country you wanted to. For instance, google expedition is an application which provides availability to travel from the great wall of china and even to the planet mars. People all over the world can visit places that are virtually impossible to visit in person. Google piloted this app in hundreds of schools all over the world. The project was extremely successful, with Google taking more than 1 million students in 11 countries on expeditions.

Furthermore, virtual reality is a great solution for military or medical uses. The most remarkable challenge for medical students learning anatomy is understanding the body in three dimensions and how different systems fit together something that virtual reality can help overcome this problem. One good example is the virtual reality system used by Mendel Grammar School in Opava City, Czech Republic, which helps students in biology classes. The team working on this project employed a Leap Motion controller and specially-adapted Oculus Rift headsets to provide an innovative way of learning anatomy.

Getting exposure to different careers is an essential part of the learning process. From when we are little children, we dream about what we want to be in the future when we grow up, and those dreams are usually inspired by the professionals in our lives. Often, we get this understanding through internships. Virtual reality can help widen students' exposure to careers and it improves people's ability to imagine themselves in others' shoes. Career expeditions show what it is like to work in a sector that students can inspect a day in someone's career, see what that person is studying and understand what that person likes or dislikes about their job. As a result, the experience becomes familiar to students.

Some of the most important knowledge we obtain does not come from what we hear from instructors, but rather from collegiality and debate. Virtual reality gives the opportunity to make learning experiences social by allowing students to communicate with each other. Using avatars and mapped facial expressions, people can come together to discuss, synthesize, and learn from one another. Additionally, it allows us to bring closer the relationship between instructors and students by learning tools that can put them together in the same room with digital representations of themselves and in that way, they can guide the students through the virtual reality world and help them gain experience.

There are some important properties that someone should follow in order to have the precise experiences in education area. Firstly, virtual reality experiences should be immersive that means designers should strive to create the feeling that users are in an experience for example, if you develop a history app, make history come alive for students. Secondly, it should be easy to use by everyone so you should eliminate the need to have special skills to interact with it.

Thirdly, it is necessary to be meaningful because it is really important for students to create a good learning experience with a good story that attracts them. Stories quite simply provide the best vehicle for delivering messages that are not only heard and understood, but that also inspire and extract action. Fourthly, it has to be adaptable as the application should provide complete control over the level of difficulty. Designers should establish how students learn and then use this knowledge to design virtual reality products that allow effective learning. Lastly, it should be measurable, something that teachers should be able to track the metrics of education so they can measure the resulting knowledge of a subject. When designing virtual reality experiences, it's essential to choose appropriate metrics and make it clear what criterium will be used to measure success and failure.

The transition from analog teaching practices to digital ones is going to change what teaching looks like. The role of a teacher will change from content delivery to content assistance. Teachers will be focused on creating conditions for research, rather than providing made knowledge. It is obvious we are in early stages of virtual reality process however, technology will continue to advance in the near future, and we will witness how much we can achieve with that.

In conclusion, with certainty we can confirm that virtual reality will change the world as we know it. In 21st-century classrooms will be technologically advanced places of learning and definitely increasing students' engagement and learning. It will inspire a whole new generation of young and bright students, ready to innovate and change the world. At the same time, the next big thing in education no longer relies on technology, but rather on a teacher's decision to push forward and adopt these technologies inside the classroom. The global goal should be to make knowledge available, accessible, and affordable for everyone on the planet.