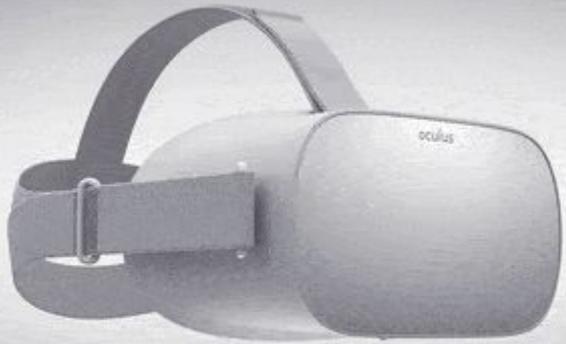# VR Headsets and Their Classroom Impacts

Should students be able to use VR headsets in school as long as it helps them to be better engaged and want to learn more in school? I believe that they should be, and I believe this for multiple reasons. Students can benefit from VR because it increases the care put in to work and the productivity and adaptivity of the student. For example, a student who doesn't enjoy history would be able to excel much better through VR. This is because the student will be able to see the history as it happens and in turn become better engaged and have a better amount of retention and recall when it comes to tests and later life experiences.

Types of Reality Modifiers

Augmented reality (AR) adds a digital element to a live view by using the camera on a smartphone. Best examples include Snapchat lenses and games like Pokémon Go.

Types of Reality Modifiers

Mixed Reality (MR) is an emerging technology. It combines the elements of both VR and AR as an interaction between the physical world and digital objects.

Types of Reality Modifiers

Virtual Reality (VR) offers a full immersion experience that completely turns off the physical world.

Pros

Several different fields can benefit from VR training that would usually put them at risk. Fields that can use VR to train include medicine, law enforcement, architecture, and aviation.

VR can give people who aren't able to fully experience life, such as disabled people, the chance to do things that they wouldn't normally be able to do.

VR gives people an out of world experience while being able to see everything like it is truly happening right in front of them but in the comfort of their home or classroom.

Cons

The technology of these headsets is still evolving and people should not stay in these worlds for longer than 20-30 minutes.

People can develop motion sickness or exacerbate pre-existing conditions by using a VR headset.

People who cannot afford a headset can get picked on for not owning one and lower self confidence can arise.

Pros in School Settings

It could be too expensive to get VR headsets in a classroom, but cheaper alternatives such as the Google Cardboard VR set can be bought for less than 10 dollars and be used in classrooms that need it the most.

It will make students want to learn and be excited to come into a classroom.

Students will be able to grasp a better understanding for the subject by being able to experience it firsthand in a 3D environment

Certain classes such as engineering, aviation, science, geography, etc. Would be able to benefit from using a VR headset. You can learn how a plane works and what it feels like to be in the seat or you could travel the world or go back in time to see how things looked and the geography of numerous countries.

Cons in School Settings

Students could get sick when using the VR headset irresponsibly.

If only one headset is present in the classroom it can lead to fights about who gets to use it.

Injuries due to the small amount of room in the classroom.

Background

VR is already being used in the classroom and showing improvements in student achievement.
VR has been used to learn about telerobotics and to witness what has happened in history or how the human body works. Learning how people have lived in the past and how they could live in the future will bring students closer to the subject that they are being taught.

Student Graduation Rates and Engagement

Every year, over 1.2 million students drop out of high school in the United States, which is about 7,000 a day. Most of these dropouts occur due to the student not being interested or not caring enough about school. If the students had more fun in their classes and saw firsthand what it was like to work in these places or see life as it happened then this number could decrease exponentially in the coming years, providing better lives for students who consider dropping out. Several numbers can be decreased when talking about dropouts, such as: high school dropouts commit about 75% of crime and they will earn $200,000 less than a high school graduate, and almost a million dollars less than a college graduate over the course of a lifetime. To keep students in school to learn what is right and what is wrong and to be able to care for themselves and their families in the future is very important when it comes to keeping these numbers lower and letting these students have a chance at a happy life. Many students are visual learners and a fun way to learn is through virtual reality, so more students will look forward to coming to school and have fun learning. This can lead to grades increasing and the dropout rate decreasing.

Students That Can Benefit

Those with attention problems such as students with ADHD (Attention Deficit Hyperactivity Disorder) have a greater struggle when it comes to paying attention and absorbing the knowledge compared to those without. As a student with ADHD, I could see myself absorbing the information and paying attention easier if I were able to see it first hand. VR also gives students who either lack self confidence or have trouble being a leader in a school setting some control on what they learn and/or how they learn it. One of the great things about VR is that you get a lot of control over what you do and how you do while also learning and practicing hand eye coordination and learning about how technology has gotten better over the years.

Certain Classes that Will Benefit From the Added Help of VR

Another way that VR could be used effectively in the classroom is through art classes. This is important because a student would to be able to see their work up close in 3 dimensional form, and then they would be able to fix mistakes and work to better themselves and their skills. A game called Beat Saber could be used to help a student improve their musical skills. The Beat Saber game is similar to guitar hero and could be a very fun and helpful way for a student to hold the beat better and longer when practicing for a concert or just to improve in general.

Benefits When it Comes to Training/Teaching

Being able to do risky jobs and learn in dangerous environments in a first person situation without having to be at risk of getting injured while in a safe, controlled area

Proven to improve retention (memory) and recall which could raise a student's test grades and knowledge on the topic. This could even help when in college to understand and know more about what they are majoring in so they can excel in the workplace

Suitable for different learning styles

Simplifies complex problems/situations

It is also proven that learning or training is easier if the experience is fun and enjoyable for the student or trainee. This means that the student will be better able to learn the content and excel in their career.

Health Risks

Some of the health risks associated with VR are vision-based. These include eye strain and blurred vision. Other health risks include headaches, nausea, and dizziness. VR companies are working on ways to fix these problems and research has found that 20-30 minute sessions are recommended when using the headsets.

Thought Provoking Question

For $200,000 dollars a school could provide an Oculus Go to each of their 1000 students. This would in turn increase engagement and content retention, which would will lead to a decrease in dropout rates and an increase in grades. Would schools be willing to use this money to help increase student engagement and decrease dropout rates?

Conclusion

I believe that schools should consider incorporating VR when teaching. It could be a good way for a student to disconnect from the enclosed teaching classroom and enter a new world where they can control whatever they get to do while still learning. VR has some setbacks due to the whole idea of virtual reality being new, and it can bring on minor health risks, but as long as regulations are set and a student knows how long they can spend in one session, it will be easy for a student to understand and engage in what they need to learn. This innovation can lower the dropout rate and help students to do better in life and be able to care for themselves as they get older.

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