

VR best practices



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Use VR with your students in a safe and beneficial way



First, what exactly is VR?

Virtual Reality, also called **VR**, is a medium that allows the viewer to get immersed into a virtual 3D experience, usually by looking through the lenses of a VR headset.

The virtual environment replaces the real world in the eyes of the viewer, who can move and look around, and sometimes even interact with the virtual content.

And that's why it's called "Virtual Reality"!

Using VR in the classroom

What's important to consider:

As VR becomes increasingly popular in K-12 education, it's essential that tech-savvy educators and institutions help schools navigate this major transition in order to ensure that they're able to start using VR in the classroom in the best way possible.

This document serves as a **support to educators,** principals or other decision makers who are **looking to implement VR** in their schools.

Here are some of the questions that should be asked before bringing VR into any classroom and that will be addressed:

- What should be considered before getting into VR?
- Why is it beneficial to students?
- What are the risks associated with using VR?

What you'll learn:

- The benefits of VR in education and how it may improve student learning
- The **potential risks** of using VR with young students and safety considerations.
- Essential **safety recommendations** to assist teachers in how to use VR in the classrooms in a smart and safe way that is only beneficial to students.



Benefits of VR for students

VR is still a relatively new technology so there isn't a lot of research supporting its usage in education yet. However, it's becoming clear through experience in schools that VR adds a beneficial dimension to the student learning experience.

Positive outcomes of using VR in the classroom:

- Adds a new level of fun to the classroom
- Offers new ways to connect with the learning material through "embodied learning" and multi-sensory experiences
- Lets students view or experience something otherwise inaccessible
- Offers personalized learning opportunities
- Allows thinking in 3 dimensions on different sizes and scales
- Develops 21st Century skills needed by new generations
- Prepares students for their future and for new jobs

Concrete benefits to student learning:

- Leads to higher student engagement in classrooms
- Leads to increased rates of participation (including usually quieter kids)
- Enhances collaboration among kids and teamwork skills development
- Builds empathy through experiencing different situations and roles
- Simplifies the understanding of complex concepts through visualizing in 3D
- Enhances spatial memory and 3D spatial thinking skills
- Increases retention of information levels



Safety concerns for children

"Disruption to learning caused by exposure to VR is simply not acceptable, nor is the potential for more serious health impacts on student health."

VRschoolresearch.com

It's completely understandable that using VR in K-12 classrooms, in particular with young students, might be a cause of concern for teachers and parents.

VR can sometimes be associated with cybersickness or dizziness, video game addiction, or the various safety hazards that can be imagined when we think of someone being immersed into a virtual dimension.

While VR can bring many advantages to the classroom and unleash student learning potential in new ways, it's of course essential to make sure that student safety is kept intact through the shift to using this new and exciting technology.

Of course, the goal is always that the use of VR offers benefits to students in ways that never cause risks to their health or disruption of the learning experience.

Education professionals and organizations are highly encouraged to plan the transition to using VR in the classroom in a thoughtful manner.

The next page offers some safety guidelines for using VR with CoSpaces Edu.



Recommendations for using VR with CoSpaces Edu

Here are some guidelines to safely let your students use VR:

- Before using a VR headset in the classroom, read the safety and regulatory guidelines provided by the headset's manufacturer. Some recommend a minimum age for using their product.
- Before exposing your students to VR, make sure that you know whether they've already had experience with this medium and how they reacted.
- Before showing a CoSpace to your students, make sure its content fits their age and development level.
- Let your students test VR for only a short amount of time (a few seconds) to see how they feel and react.
- Guide your students through their first VR experiences. Help them put the headset on, tell them what they should be seeing, talk to them during the experience and generally make them feel comfortable and supported.
- If a student doesn't feel good using VR, don't push them to try again. Instead, let them explore CoSpaces with another view mode, for example using the gyroscope mode on a tablet device.
- Limit your students to a maximum amount of time in VR (15 minutes is usually recommended) and have breaks between VR experiences.
- Explain to your students that if they don't feel good, they should stop using VR and tell their teacher.
- Make sure that your students don't move around too much with the VR headset on as they could hit others or objects. We recommend having your students sit down to look around in VR.
- If they're using VR with controllers, ask your students to take breaks if their hands start hurting or tingling.



Research & Resources

Provided by VRschoolresearch.com

Top tips for teachers on the learning affordances of VR

A4 classroom poster infographic on learning affordances of VR

A3 classroom poster infographic on learning affordances of VR

VR School Teacher Safety Talk Script

VR School Project Health and Safety Screening Survey

VR School Project Classroom Safety Poster_Accessible

VR School Project Classroom Safety Poster

<u>Information Statement for Parents, Carers and Students</u>

Consent/Assent Form for Parents, Carers and Students

DATA A safe and respectful procedure for student interaction in VR poster