Virtual Reality: The Education Revolution Waiting to Happen

Virtual reality has become less of a novelty technology reserved for gamers and has moved into more mainstream spaces, exploding in popularity via applications like Oculus Rift, Google's newly announced Daydream, and even new California theme park attractions. One other place you're apt to find virtual reality is—you guessed it—inside the classroom. We've already detailed how to take a virtual reality field trip, and now we're going to take it one step further by highlighting different ways virtual reality can be used in classrooms for kindergarten through middle school-aged students. Let's get started.

But First . . . Why Virtual Reality?

Sixty percent of teachers surveyed for a recent McKinsey & Company poll said they "lack the educational resources they need" to effectively engage their students. Virtual reality provides a solution to that problem because its core function is to engage students in new activities and—perhaps as close to literally as you can get—make lessons "come alive." In addition, new technologies are alluring, and young minds especially are drawn to the excitement of donning headsets and becoming active participants in their own educational experiences.

Classroom Applications

While some institutions of higher learning are applying virtual reality in their classrooms—take, for example, the program at Boise State that allows nursing students to simulate medical procedures—there are numerous applications for the same technology to be used for younger students. Here are a few:

- **Scientific exploration.** Elementary and middle school aged students might enjoy studying the anatomy of a cell from inside the cell, offering a new, more memorable perspective to what was previously only visible on textbook pages or computer screens.
- **Cultural exploration.** It can be difficult for teachers to articulate all the idiosyncrasies of different cultures, especially to young students. Virtual reality can allow children to go back in history to vividly see where different civilizations lived, giving them a more in-depth glimpse into those difficult-to-conceptualize cultures.
- **Historical immersion.** Educators who teach with virtual reality can immerse their students in iconic historical events, like Martin Luther King, Jr.'s "I Have a Dream" speech

A Different Kind of Gaming

Virtual reality has long been used as a gaming technology, but it's important to note here that classrooms can—and often do—use games as learning tools, too. This isn't a new development—in fact, tutorial games like SimCity and MathBlaster have been used in elementary classrooms for ages. Virtual reality ups the ante on educational gaming, though, by engaging students through an activity with which they enjoy and are already familiar—playing. Here are some examples of how educators are combining learning games with virtual reality to help enrich the learning experience for young students:

- **MindCraftEdu.** This virtual reality "game" platform allows students to participate in a variety of activities, from learning about electricity to exploring historical locations.
- **Work at a Pizza Place.** This real life simulator shows students the complexities of running a restaurant, teaching them about math and organization in a game like setting.
- **Second Life.** Educators are using this large platform to let students play in educational sandboxes, take tours of other classrooms, and more.
In sum, virtual reality is a promising tool for educators because it engages students, makes difficult concepts easier to understand, and brings lessons to life. It's not only an education revolution waiting to happen—it's one that's already here.