Don’t worry if your kids played ‘Minecraft’ all summer

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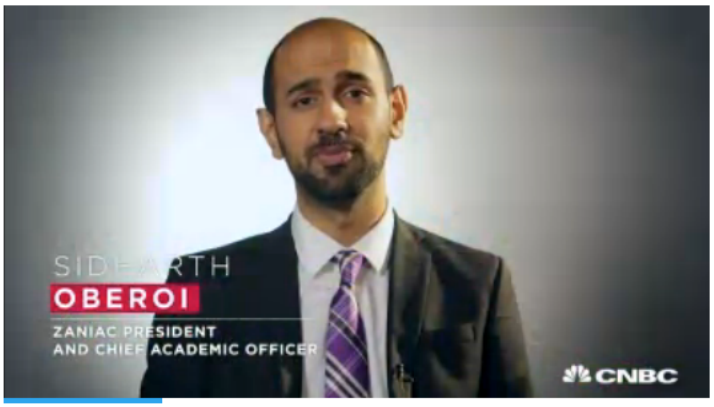
By Barbara Booth



If your kids have been playing the popular videogame "Minecraft" all summer, don't sweat. They may be on their way to becoming the next Mark Zuckerberg.

At any given moment, more than 998,000 people around the world are playing "Minecraft," the wildly addictive video game in which you can create your own virtual cubic universe by manipulating and stacking gravity-defying blocks. Kids and adults have become obsessed with the game, which Microsoft acquired for $2.5 billion from Swedish game developer Mojang in 2014. To date, more than 70 million copies have been sold.

Here's the good news: Parents and educators alike have discovered that this game is more than just a mindless activity that possesses kids. It is actually an innovative educational tool that inspires, educates and builds 21st-century skills that help children in school and in their future professions—especially in STEM fields (science, technology, engineering and math), where interest is lagging.

To make learning more fun and to expose kids to STEM education at an early age, Zaniac—a national STEM enrichment franchise for kids K through 8th grade—has incorporated several "Minecraft" courses into its curriculum.

"We knew that we needed to add more substance to our business model," said Zaniac's chief academic officer Sidh Oberoi, referring to the company's flagship math program, Zane Math. "My co-founder's kids were actually playing 'Minecraft' one day at the offices, and I was observing them, and I thought, Hey, there's actually a lot of natural educational concepts that exist within the game, and I realized that it would be pretty easy to write a curriculum around what they were doing."

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>
> -Sidh Oberoi, chief academic officer, Zaniac

Oberoi explained that there are a number of different subject modules that can be utilized with the "Minecraft" software. Currently, Zaniac has developed two programs: "Minecraft" Physics and "Minecraft" Exploration, designed to teach students about life sciences, biomes, physics and more through "Minecraft" challenges. Zaniac's next move is going to be a "Minecraft" architectural-planning course.

"It will combine urban planning and development with architecture," said Oberoi. "We will teach them about the history of architecture, and then they will have to develop their own city, with health zoning, educational zoning and commercial zoning around residential areas."

Game-based learning on the rise

Game-based learning has become a powerful learning tool in recent years, and not just for middle-schoolers. Colleges such as MIT, Northeastern, Michigan State, Purdue and UPenn have long been making GBL an integral part of their curriculum

to foster the 21st-century skills necessary to fill the millions of STEM jobs available in upcoming years.

According to the Department of Education, STEM jobs in the U.S. will increase 14 percent from 2010–2020, yet data shows that 3 million of those jobs will go unfilled by 2018—partly because only 16 percent of American high school seniors are proficient in mathematics and interested in a STEM career. In fact, the U.S. ranks only 25th in mathematics and 17th in science among industrialized nations.

So educators are left to figure out ways to develop and encourage the next generation of innovators and problem-solvers.

The 10 top-paying STEM jobs for 2015

1 Reservoir engineer; median pay: $101,000
2 Petroleum engineer; median pay: $96,000
3 Facilities engineer; median pay $71,800
4 Network security analyst. median pay: $70,000
5 Reliability engineer; median pay: $69,600
6 Automotive engineer; median pay: $68,200
7 Chemical engineer; median pay: $67,600
8 Hardware design engineer; median pay: $66,600
9 Nuclear engineer; median pay: $66,300
10 Mobile Applications Developer; median pay: $65,100

Source: *Forbes, in conjunction with PayScale.com*

"Games are definitely the direction that we are headed in, in education," said Oberoi, adding, "We see a lot of ideas that are emerging. Companies keep popping up that are creating games that enable you to teach different types of content."

Incorporating apps into the classroom to engage students in STEM learning is one of the biggest trends for 2015. Some of the top STEM education apps include MIT App Inventor, Hopscotch, Lightbot, NASA Visualization Explorer and Pocket Universe.

But Oberoi is cautious. "Lots of times a student will download an app and they are excited about it for a day or two, but then they'll kind of forget about it and don't really explore it to its full potential," he said, explaining that learning should be more about creating new items and new technologies, a reason Zaniac recently launched an app creation course.

"It's really great that schools are using apps to teach math and reading," he said. "But wouldn't it be really great if you could create your own app and sell it on the Android Playstore?"

Oberoi added, "There are so many great tools that exist with technology today. But they're not utilizing technology to teach technology."

Zaniac currently has locations in in Salt Lake and Park City, Utah; Greenwich and Westport, Connecticut; and New York City. Additional locations will be opening over the next few months, in Boston and Columbus, Ohio. By 2017, Oberoi said Zaniac plans to have 50 locations across the U.S.

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