Educational gaming: Why it's okay to let your kids play Minecraft

While parents these days are often made to feel guilty about allowing their kids to play video games, teaching experts believe that not all games are detrimental to development, and some can in fact have a positive educational impact.

Image: A screenshot taken of a Minecraft world

One such game is Minecraft, the popular world-building “sandbox” game, and is recognised by schooling experts as beneficial to children’s learning and developmental journeys. In fact, several schools are welcoming Minecraft into the classroom. Here’s why Minecraft can be good for your kids.

It promotes problem-solving

Says Gabi Immelman, founder and CEO of e-learning platform Mindjoy: “In a traditional classroom environment, children are fed information in a non-contextual way. So, for the most part, they are presented with theoretical problems to solve on paper.”

In the Minecraft world, problem-solving is related to tangible outcomes. The goal is to keep your character alive, and you do this through applied critical thinking, building your entire world from the ground up. Beyond that - and unlike other games - Minecraft has no particular end goal.

The game has two primary modes – Survival and Creative. In both modes, players must build their homes and create their own worlds around them. This requires ingenuity, forward thinking and problem-solving skills.

“The key to all of this is the hard fun the kids can have while they accomplish the goals of the game. All kids should be able to experience learning that is joyful, curious and spotlights their superpowers. That can plant the seed for a lifelong love of learning,” Immelman explains.

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It inspires creative thinking

Barbara Neethling, bridging class teacher at Radford House Primary School, has used Minecraft as an interactive learning tool in the classroom.

Neethling comments: “Minecraft inspires great levels of creativity. For example, we challenged one of our classes to build our school in the Minecraft environment. The challenge was great fun, but it required a lot of creative thinking. It also developed critical spatial awareness skills.”

Minecraft gameplay requires an understanding of a few basic principles which enable world-building. Two of the most important principles in the game are mining and crafting – hence the title of the game. Crafting is a process that allows players to create new materials they can use in their world-building efforts and that often requires divergent creative thinking.

It introduces basic coding principles

Learning should build confidence and allow kids to have fun while they acquire real-world skills. Gaming is a simple way to develop motivation, mastery and grit, even with complex problems, Immelman explains.

“At face value, coding can appear complicated. Minecraft helps simplify the concept through its core 1×1 block structure, which is the basis for every build. This is a very similar principle to coding language, which works based on binary ‘building blocks’ made of ones and zeros.”

Minecraft: Education Edition takes this concept one step further, using visual block coding to teach fundamental coding concepts.

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It builds critical STEM skills

“Kids are often underestimated,” Immelman comments, “and they are capable of so much more when the right environment is created.”

She believes that learning complex concepts in maths and science can be obscure and meaningless without a contextual framework. Computer games and virtual worlds create visceral, hands-on experiences where kids can construct their own understanding of mathematical and scientific principles to solve everyday problems. As a bonus you don't have to do much to motivate kids to learn this way.

Neethling adds, "Crafting requires that children use 'recipes' or formulas to create tools and builds using raw materials – in many ways, similar to creating chemical compounds. In effect, they are also being introduced to engineering concepts as they need to work with basic scientific and structural principles when they craft."

Learning through play

There are approximately three billion gamers in the world – more than a third of the global population. Children and young people are turning to the virtual world for entertainment, interaction and collaboration now more than at any other time in history.

When monitored by parents and teachers in a safe environment, Minecraft is proving to be a useful tool for adults looking to help children learn, increase self-confidence and have fun – and all while they progress on their developmental journey.