

Want to boost creativity? Try playing Minecraft

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Study participants were split into groups with some playing Minecraft and others playing a race car video game or watching TV. Credit: Iowa State University

The next time you need to get the creative juices flowing, playing some types of video games may help.

Video games that foster creative freedom can increase creativity under certain conditions, according to new research from Iowa State University. The experimental study compared the effect of playing Minecraft, with or without instruction, to watching a TV show or playing a race car video game. Those given the freedom to play Minecraft without instruction were most creative.

"It's not just that Minecraft can help induce creativity. There seems to be something about choosing to do it that also matters," said Douglas Gentile, a professor of psychology.

If you are not familiar with the game, Gentile says Minecraft is like a virtual Lego world. The game, which has sold more than 100 million copies,

allows players to explore unique worlds and create anything they can imagine. Study participants randomly assigned to play Minecraft were split into two groups. The one receiving instruction was told to play as creatively as possible.

After 40 minutes of play or watching TV, the 352 participants completed several creativity tasks. To measure creative production, they were asked to draw a creature from a world much different than Earth. More human-like creatures scored low for creativity and those less human-like scored high. Surprisingly, those instructed to be creative while playing Minecraft were the least creative.

Gentile says there's no clear explanation for this finding. In the paper published by *Creativity Research Journal*, he, Jorge Blanco-Herrera, lead author and former master's student in psychology; and Jeffrey Rokkum, former Ph.D. student in psychology, outlined possible reasons why the instructed Minecraft group scored lower. Blanco-Herrera says the instructions may have changed subjects' motivation for play.

"Being told to be creative may have actually limited their options while playing, resulting in a less creative experience," Blanco-Herrera said. "It's also possible they used all their 'creative juices' while playing and had nothing left when it came time to complete the test."

Games teach creativity similar to aggression

Video games can have both harmful and beneficial effects. Gentile's previous research has shown the amount, content and context of <u>video</u> games influence what players learn through repeated experiences. While much of Gentile's research has focused on aggression or prosocial behavior, he says the same appears to be true for creativity.

Most video games encourage players to practice some level of creativity. For example, players may



create a character and story for role-playing games or be rewarded for creative strategies in competitive games. The researchers say even first-person shooter games can potentially inspire creativity as players think about strategy and look for advantages in combat.

"The research is starting to tell a more interesting, nuanced picture. Our results are similar to other gaming research in that you get better at what you practice, but how you practice might matter just as much," Gentile said.

The researchers say based on these findings, it is important to not disregard the potential video games have as engaging and adaptive educational opportunities.

More information: Jorge A. Blanco-Herrera et al, Video Games can Increase Creativity, but with Caveats, *Creativity Research Journal* (2019). DOI: 10.1080/10400419.2019.1594524

Provided by Iowa State University

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