

# Video games can teach how to shoot guns more accurately and aim for the head

April 30 2012, by Jeff Grabmeier

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Just 20 minutes of playing a violent shooting video game made players more accurate when firing a realistic gun at a mannequin – and more likely to aim for and hit the head, a new study found.

Players who used a pistol-shaped controller in a shooting video game with human targets had 99 percent more completed head shots to the mannequin than did participants who played other video games, as well as 33 percent more shots that hit other parts of the body.

In addition, the study found that participants who reported habitual playing of violent shooting games also were more accurate than others when shooting at the mannequin, and made more head shots.

It's not surprising that video games can improve shooting accuracy -- the military, police departments and others already use video games for training purposes, said Brad Bushman, co-author of the study and a professor of communication and psychology at Ohio State University.

But this is the first study to show that average players using violent shooting games with realistic human targets can improve firing aim and accuracy.

"For good and bad, video game players are learning lessons that can be applied in the real world," Bushman said.

Bushman conducted the study with Jodi Whitaker, lead author of the

study and a graduate student in communication at Ohio State. The study appears online in the journal *Communication Research* and will be published in a future print edition.

The study involved 151 college students who first completed questionnaires measuring their aggression levels and their attitude toward guns, and asked about their firearms training, their favorite video games, and how often they played them.

They then spent 20 minutes playing one of three different video games: a violent shooting game with realistic human targets that rewarded head shots (*Resident Evil 4*); a nonviolent shooting game with bull's-eye targets (the target practice game in *Wii Play*); or a nonviolent, non-shooting game (*Super Mario Galaxy*).

For the two shooting games, the participants either played with a standard controller including a joystick, or used a pistol-shaped controller.

Immediately after playing the [video game](#), all participants shot 16 "bullets" at a 6-foot tall, male-shaped mannequin covered in Velcro at the end of a narrow hallway, 20 feet (6.1 meters) away.

The gun – a black airsoft training pistol -- had the same weight, texture and firing recoil of a real 9mm semi-automatic pistol. The "bullets" were .43 caliber rubber training rounds covered in soft Velcro. All participants were instructed in the use of the pistol and wore safety goggles.

Participants who played the shooting game using a pistol-shaped controller completed the most head shots at the mannequin (an average of about 7). They were also the only group who completed more head shots than they did shots to other parts of the mannequin.

"We didn't tell them where to aim – we just told them to try to hit the mannequin," Bushman said.

"But the violent shooting game they played rewarded head shots, and so they shot at the mannequin like they were playing the game, aiming for the head."

Participants who played the nonviolent, non-shooting game had the fewest head shots, an average of about 2. Those who played the other games, including those who played the violent shooting game with a standard controller, fell in between those extremes.

Participants who played the violent shooting game with the pistol-shaped controller also made the most shots to other parts of the mannequin, averaging slightly more than 6.

Those who played the nonviolent, non-shooting game made an average of about 4 shots to other parts of the mannequin, the least of any group.

All of the differences among the groups regarding total hits and head shots stayed the same even after taking into account the participants' levels of aggressiveness, attitudes toward guns and firearm experience.

When the researchers examined the participants' experience playing video games, they found that those who habitually played violent shooting games had more total hits and head shots to the mannequin when compared to less experienced players.

"The more frequently one plays violent shooting games, the more accurately one fires a realistic gun and aims for the head, although we can't tell from this study which factor is the cause," Bushman said.

Bushman said these results should give parents and policymakers pause.

"We shouldn't be too quick to dismiss violent video games as just harmless fun in a fantasy world – they can have real-world effects," he said.

Some killers have credited video games for helping them prepare, he said. For example, Anders Behring Breivik, the Norwegian man who shot and killed 69 people at a youth camp in Norway last year, wrote in a manifesto: "I see MW2 (Modern Warfare 2) more as a part of my training-simulation than anything else. You can more or less completely simulate actual operations."

Bushman said he's not claiming that these games necessarily lead people to commit violent crimes.

"But this study suggests these games can teach people to shoot more accurately and aim at the head," he said.

Provided by The Ohio State University

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