Study highlights ways video games can be enhanced for older adults

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Advances in technology have brought the video gaming experience closer to that of traditional physical games. Although systems, such as the Wii, that incorporate these features fly off the shelves, the increasingly complex technology may alienate certain segments of the population, including seniors. In their upcoming Ergonomics in Design article, "Putting Fun Into Video Games for Older Adults," authors Anne McLaughlin and colleagues conclude that even games for "all ages" do not adequately meet older adults' needs and suggest how game developers can increase the benefits while reducing the physical, cognitive, and affective costs of play.

McLaughlin et.al conducted two focus groups with adults over age 65 (average age 82) and observed as the participants, either alone or with another person, played a Wii game called Boom Blox for 15 days. Certain types of video games can have many benefits for seniors, including improved cognitive performance, increased social interaction, and feelings of success, achievement, and self-esteem. Many of these benefits were found to occur in the current study.

Costs observed by the researchers included difficulties caused by physical and cognitive changes that accompany aging; for example, problems reading text, identifying objects, activating the Wiimote, or recalling what was read or the meaning of an unlabeled icon.

"Many current games are social and active, and they adapt to different player abilities so all can enjoy participating at once," said McLaughlin.

"However, this isn't true of all games, and games in the past tended to be the opposite: individual, inactive, and with few gradations of difficulty available. I've recently seen a number of studies touting the benefits of even moderate physical activity for older adults, and today's games can be incredibly active."

The authors encourage game developers to understand the capabilities, limitations, and interests of older adults and to design their games accordingly. "Game design for older adults is not only viable, it is probably not as difficult as we imagine," continued McLaughlin. "Our observations of older players showed that they were motivated by many of the same game elements as those that motivate younger adults. The challenge is in overcoming the stereotypes of video games as violent, isolating, fast-twitch activities designed for children and teenagers. Older adults are looking for challenge, empowerment, and accomplishment in their lives, but they do not necessarily think of video games as fulfilling those desires."

The authors are involved in the development of a cognitive game designed specifically for older players. "This game will be based on our findings concerning both affective and cognitive responses to games," said McLaughlin. "We are participating in the design and testing of this game, and our next steps will be to deploy it as a cognitive training intervention and assess its effects."

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