Are videogames mindless entertainment or can they help us learn?

When we hear “videogames,” we tend to think of the latest Xbox or Wii games.

For some time now, videogames have been viewed as a popular learning tool. The military has been using videogames for over a decade to train soldiers. In addition, there are many flight simulator games that are used to train pilots. More recently, organizational training researchers have been examining what components of videogames make them useful instructional tools.

One study by Karin Orvis of Old Dominion University and her colleagues at the U.S. Army Research Institute examined how difficulty of a videogame can affect learner performance and motivation.

In school, learning is structured to be more difficult as students progress through the grades. Videogames tend to work the same way: players progress until they complete the game, or until they reach the point that the game becomes too difficult for their ability or motivation. In Orvis’ study, 26 participants completed a military-oriented training game with different types of difficulty. Researchers found that for those participants with little previous videogame experience, starting at a moderately high difficulty level with future adjustments resulted in the lowest performance levels. The difficulty quickly surpassed the learners’ skills.

This evidence suggests prior experience plays an important role in how the difficulty of a task should be modified. Teachers should understand the level of experience that learners and students have prior to providing the instruction. Further, we should build in prior experience to boost motivation and learning. More learning games are being developed and technologically-based learning environments (like online learning) are being used. We know they can be motivating and can be effective learning tools, but more research is needed to examine exactly why and how they work.

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