

# Literacy expert pushes 'play' on educational games

September 30 2015, by D'lyn Ford

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Fifth-graders take part in a quest-based game as part of Crystal Island, an NC State research project funded by the National Science Foundation.

Are computer games for learning or just for fun? That's the question Hiller Spires, NC State professor of literacy and technology, tackles in a commentary for the *Journal of Adolescent and Adult Literacy*.

Spires says while we may not think of them as texts, computer games use

multiple modes of communication – writing, speech, sound, music, and still and moving images. Skilled game players gain fluency in the specialized "language" of the game. What's more, they may be motivated to read while playing, which helps build literacy.

"In order to become a good reader, you have to read," says Spires, senior research fellow at NC State's Friday Institute. But interest in reading can flag in middle school, at least when it comes to traditional books.

However, Spires says a 2011 study found that teen boys could read above their grade level while playing a game – the same boys who scored about two years below grade level on standardized reading tests.

To learn more about games and literacy, Spires collaborates with computer science professor James Lester on the [Crystal Island project](#), game-based research at NC State funded by the National Science Foundation. Researchers in computer science, literacy, science and design have created games for fifth- and eighth-grade students, incorporating [science content](#) from state standards for each grade level.

Fifth-graders play a quest-based game, taking on the role of shipwrecked explorers trying to contact rescuers. Eighth-graders try to diagnose and stop a disease outbreak on a tropical island.

"In Crystal Island, students read, write and think in the role of a scientist," Spires says. "There's a feeling of connecting with the information, an understanding of how that information is helping them succeed in the game."

When it works, the role-playing helps participants become immersed in the game – an effect that's similar to being caught up in reading a book.

And results so far show that playing Crystal Island increases students'

knowledge of science content.

Spires says creating an engaging game involves a balance between factual content and engrossing narrative.

Does she recommend the use of well-designed educational games in classrooms? Yes.

Does she tell her own son he's learning when he plays a [game](#) at school? Not necessarily.

Provided by North Carolina State University

Citation: Literacy expert pushes 'play' on educational games (2015, September 30) retrieved 8 June 2023 from <https://phys.org/news/2015-09-literacy-expert-games.html>

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