

### Game theory

An 11-year-old boy taps furiously on a laptop, blasting enemies as he goes through a maze. They wipe him out before he can reach the end – game over. Frustrated, he opens the game's programming window, changes the gravity setting, and this time beats the baddies. Victory!

This could be the future of American education, and that's not necessarily a bad thing. The Quest to Learn school opened last September in Manhattan, welcoming the first class of sixth-graders who will learn almost entirely through videogame-inspired activities, an educational strategy designed to keep kids engaged and prepare them for high-tech careers.

Ever since Pong, videogames have outperformed teachers in one key way: They command attention for hours. "Games are exceptionally good at engaging kids," says Quest's main designer Katie Salen, a game designer and technology professor at the New School University. "They drop kids into complex problems where they fail and fail, but they try again and again." She knew, though, that when kids face tough problems in school, they sometimes just give up, which is partly why only a third of eighth-graders earn 'proficient' math scores on national assessment tests.

With this in mind, three years ago Salen started the Institute of Play, a nonprofit collaboration of game designers and learning experts who create games to teach school material. After successful tests in city classrooms, the group worked with the New York City Department of Education to open Quest to Learn.

This year's 72-student class is split into four groups that rotate through five courses during the day: Codeworlds (math/English), Being, Space and Place (social studies/English), The Way Things Work (math/science), Sports for the Mind (game design), and wellness (health/PE). Instead of slogging through problem sets, students learn collaboratively in group projects that require an understanding of subjects in the New York State curriculum. The school's model draws on 30 years of research showing that people learn best when they're in a social context that puts new knowledge to use. Kids learn more by, say, pretending to be Spartan spies gathering intel on Athens than by memorizing facts about ancient Greece.

Most sixth-graders don't expect to ever need to identify integers, but at Quest, it's the key to a code-breaking game. In another class, when creatures called Toggles needed help moving heavy objects the class made a video instructing how long a ramp they should build to minimize the force they needed to apply. "They're picking concepts up as well as, if not better than, at other schools," says Quest's math and science teacher Amerre Mourad. Beyond make-believe, Quest is the first middle school to teach videogame design. Salen says building games teaches students about complex systems, which will prepare them for growing fields such as bioinformatics.

The plan is for this class to attend Quest through high school, adding more sixth-graders every year. Although students must pass the annual standardized tests that all public students do to keep a school open, educators so far are impressed.

Salen has pilot studies to back up that risk; however, she won't know if the school prepares kids for real-world success until the first class graduates. But Quest has already proved itself in one area: The kids love it. "It's fun," says student Nadine Clements. Her least favourite part of school? "Dismissal."

Quest to Learn school is unusual because the students there ...

- 1) learn to play videogames professionally.
- 2) learn who videogames were designed by.
- 3) play videogames instead of learning.
- 4) learn through videogame-based tasks.

According to the text, videogames outperform teachers at ...

- 1) giving students challenging tasks.
- 2) keeping students' attention.
- 3) preparing students for standardized tests.
- 4) entertaining students.

The word **they** in "They drop kids into complex problems ..." (paragraph 3) refers to ...

- 1) teachers.
- 2) tests.
- 3) students.
- 4) games.

Which of the following statements about studying at Quest to Learn is NOT true, according to paragraph 5?

- 1) Its curriculum is based on the New York State curriculum.
- 2) At Quest to Learn students study four main subjects.
- 3) Students learn by putting new knowledge into practice.
- 4) Group work is one of the main forms of learning.

In paragraph 5, the task to gather information on Athens ("Kids learn more ...") is probably an example of how students study ...

- 1) maths.
- 2) English.
- 3) game design.
- 4) history.

According to Katie Salen, learning to design videogames ...

- 1) prepares students for their future careers.
- 2) teaches students to use their imagination.
- 3) motivates students to study bioinformatics.
- 4) helps students to make video instructions.

According to the writer, how well Quest to Learn prepares students for the real life will be known ...

- 1) when new students start the school.
- 2) after students pass their end-of-the-year tests.
- 3) after the graduation of the first class of students.
- 4) when educators and government have approved it.