

The crux of the matter

Design research methods and perspectives — "You can't bring that game to school!"

Henry Jenkins, Kurt Squire, & Philip Tan

Design research methods and perspectives — Creating a culture of design research. Eric Zimmerman.

These two papers pretty much summed up the semester: it is possible to design educational software that is attractive, engaging, and meaningful, much like *Supercharged!* But education is an active and interactive process, requiring reflective guides at every stage. Engaging electronic media can be an effective part of education, but it cannot at this point replace the role of a good teacher. Further, in education, spectacle, in the Aristotelean sense, no matter how effective at creating student engagement, must never overshadow pedagogical goals.

Supercharged! seems like a natural for a game and an effective way to teach about forces on a charged particle. But the prototype did not encourage reflection – students had a good time, but did not connect game play with the physics content. So the game was made part of a broader curriculum. The authors conclude that:

By guiding activity, providing scaffolding in the form of worksheets, and encouraging individual and group reflection, the teacher was able to shape the experience so that the game was a useful tool to support learning...Each teacher will adapt the game for their own teaching style.

Chris Dede's *River City* is *part* of a unit on ecology and biology. *Supercharged!* needed scaffolding, reflection, practice. Electronic gaming cannot and should not stand alone in the classroom. There are no shortcuts to effective education. A home-schooling parent once told me about the curriculum she used for her children. "It's great," she gushed. "You just sit them in front of the TV."

(In the future, when our programming sophistication allows us to replace teachers with cyborg substitutes, we should only consider it an option for students who need no socialization – for example, students chosen at birth to live their lives on lonely, distant space outposts with R2D2 and C3PO for companions.)

This point of reflection over spectacle was reiterated in the article by Zimmerman. The design space Zimmerman described was packed with games of all description and books about games. People were encouraged to play! Buy games! Share their favorite games! But "A section of our intranet is reserved for posting links and thoughts about new games and game sites" (p186). Being professionals trained in games, no teacher should be required to guide the reflection. But reflection is part of the critical analysis of the game world required for developers.