



Mark Mallardi explains how children's enthusiasm for games can be harnessed for learning

Games in the Classroom?

In the past, the use of games in classroom instruction was not even a consideration, because most educators equated “games” with the so-called “twitch style” videogames that require only that players have the manual dexterity and hand-eye coordination necessary to blow up, kick, punch, out-race, avoid, get around, or otherwise “outwit” the animated images and, more recently, avatars, on the screen. In that incarnation, “games” not only did not fit the classical definition of Supplemental Learning Aids, but were instead largely looked upon as mindless entertainment with no practical educational value.

In addition, the value of classroom “play” was unrecognized. Play was something that happened outside of the classroom, the benefits of which were not apparent, and certainly could not be objectively quantified. Play was a luxury, something that kids were supposed to do in their spare time, not when they were “learning.”

“Fun” was not necessarily associated with the classroom instructional experience. Kids were not there to have fun, they were there to “learn.” Fun implied a level of engagement with the material to be “learned” that wasn’t possible given conventional methods of instruction.

Games. A Fresh Perspective.

With the release of the book *Digital Game-Based Learning* by Marc Prensky (McGraw-Hill, 2001), the challenges inherent in educating a generation raised on videogames and handheld digital devices became apparent. Prensky stated that profound “cognitive style changes” had been observed in the Games Generation versus prior generations.

According to Prensky, the key to this cognitive evolution was the fact that the “stuff to be learned — information, concepts, relationships, and so on,” could not just be “told to” students, but rather needed to be “learned by them, through questions, discovery, communication, interaction, and, above all, fun.”

Having been weaned on PlayStation 3, PlayStation Portable (PSP), Xbox, Wii, and a variety of other online and handheld game delivery systems, today’s students are acclimated to receiving information, processing it, distilling it, and incorporating it into their learning paradigm in fundamentally different ways than those of generations past.

More recent research from Prensky, which appeared in the June/July 2008 issue of the magazine *Edutopia*, indicates that “Students are mind-numbingly bored in class.”

Verbatim quotes from students include the following:

- “I’m bored 99 percent of the time.” (California)
- “Engage us more.” (Texas)
- “Pointless. I’m engaged in two out of my seven classes.” (Florida)

Prensky states that students attribute their lack of engagement to the following:

- “I’m bored all day because the teachers just talk and talk.” (fifth grade student)
- “Talk, talk, talk, and talk, and worksheets.” (West Virginia student)
- “They do too much explaining, and don’t let us do things.” (Detroit student)
- “They don’t let us do things — they just talk to us.” (Texas student)

According to Prensky, “Students universally prefer questions rather than answers, sharing their opinions, group projects, working with real-world issues and people, and teachers who talk to them as equals rather than as inferiors.”

In keeping with Prensky’s findings, a growing body of research attests to the effectiveness of game play in facilitating cognitive development, for young and old alike.

The emergence of games as a means by which key cognitive, motor, and social skills can be developed and maintained represents a profound shift in the way games are embraced in the learning process. The “new” conventional wisdom regarding the use of games as part of the instructional experience goes as follows:

Games Help Develop Higher Order Thinking Skills

Game play addresses higher order cognitive functions, enabling learners to develop their skills in the areas of strategy, critical thinking, logical reasoning, spatial awareness, etc. The fun and excitement that games bring to the classroom mask the fact that students are stretching their higher order thinking muscles, thereby making the instructional process seem a lot less like “work” and a lot more like

“play.” This enhances student receptivity to, and retention of, the material at hand.

Games Help Develop Motor and Social Skills

In addition to higher order cognitive development, games can help develop critical motor functions. In addition, the participatory nature of game play also directly addresses the development of important social skills — awaiting one’s turn, being patient, taking the opinions of others into account, following directions, communicating effectively with others, etc.

Games are Multi-Generational

Game play can involve learners of all ages and, as indicated earlier in this article, cognitive benefits can accrue to young and old alike. The societal benefits of multiple generations coming together around the game board are considerable, including: promoting dialogue and a better understanding between the generations, the sharing of valuable knowledge between the generations that might otherwise not occur, etc.

Games Bridge the School to Home Divide

Teachers, and concerned parents, are always looking for ways to continue the learning experience beyond the confines of the classroom. Games represent a supplemental instructional resource that can be utilized in the classroom, learning center, pre-school, or after-school environment, and then continue to be used at home. The same healthy competition that serves students well at school can serve them at home in their interactions with family members. This is especially valuable as regards to the participation of the elderly, who can benefit from the cognitive stimulus that games provide.

Games Engage the Learner

Game play, and the healthy competitive spirit that it introduces to the classroom, has the capacity to engage students in the learning experience like nothing else can. Games offer a reward system that is tangible to students, and the fun and excitement that games afford serve to motivate students and connect them to the material on a much deeper level.

Games are Experiential

Games are hands-on, interactive experiences that transform a passive learning environment into one where students actively participate in their education. This heightened interaction with the material, made possible via the multi-sensory experience which game play affords — visual, auditory, and kinesthetic — engages both the rational and experiential mind and enables players to retain a great deal more of what they’ve learned.

Games Motivate Learners

Games challenge players to achieve very specific, measurable goals, and provide a reward system for doing so. As opposed to traditional instruction, which was heavy on rote memorization of facts and drill-and-skill repetition in an effort to permanently imprint information upon one’s memory banks, games provide a framework within which even