What Can Angry Birds Teach Us About Universal Design for Instruction?

This is a guest post by Kathryn Linder, Director of the Center for Teaching Excellence at Suffolk University. Follow her on Twitter at @Katie__Linder.

For those of us who have played Angry Birds, it is no secret that the game can be addicting. You start a level and an hour later you look up as if no time has passed. For those lucky few who haven’t been sucked into the Angry Birds vortex, the main goal of the game is to sling-shot birds into a
structure made of wood, ice, stone, or other materials in order to have the structure collapse and kill cartoon pigs. Each level offers a more challenging structure to topple and several different kinds of birds (of different sizes and capabilities) to utilize as weapons.

In part, I think that Angry Birds is so fun to play because it helps develop our meta-cognitive skills (http://chronicle.com/article/MetacognitionStudent/130327/). Throughout playing Angry Birds, one must pay attention to the strategies being employed, adjust one’s play as needed to achieve certain goals and objectives, and transfer what you have learned about a bird’s capabilities several levels ago to the current level.

In short, Angry Birds is a powerful metaphor for learning. As I was recently playing the game, I could not help but think: what if my classroom was more like this? Would students have a better learning experience?

Consider the following:

**Angry Birds involves practice without penalty.** Since there are an infinite number of chances to pass each level, there is no risk involved in taking chances within the game. Players can try a diverse range of strategies to see what will work.

**Angry Birds offers the opportunity for constant feedback.** As you shoot each bird, the trail is marked for the player so you know how to adjust your angles and each bird’s velocity. Also, if you are like me, you often play the game with a person leaning over your shoulder encouraging you to try something new when one method isn’t working.

**Angry Birds inherently teaches that different tools have different purposes.** Each bird has specific strengths and weaknesses when it comes to the type of material it can destroy or the special technique it offers (splitting into three birds, dropping a bomb on cue, etc.). Because players of Angry Birds must strategize about how to use each bird, they come to understand that the tools they are given are both context-specific and situation-based.

**Angry Birds has a built in mechanism for knowledge transfer.** As players learn more about what each bird can do, they must then take their knowledge of game strategy and apply it to different levels. In order to succeed in the game, players need to transfer what they know about each bird and the skills they have learned on previous levels to their current level of play.

**Angry Birds rewards perseverance.** Just like the game enables players to practice without penalty, it also rewards persevering in the face of obstacles. The best way to figure out to use each bird to its optimal potential is to try lots of different methods and angles of shooting them.
and over again).

**Angry Birds gives no time limit.** Players can look over a level and strategize for as long as they want. Although the pigs might start to make a little noise, there is no actual time limit for each level. Impatient learners can forge ahead and try lots of strategies in a short amount of time, while more reflective learners can take as much time as they need to create a plan of action.

No wonder we are all addicted to this game! Now if only we could ensure that our classrooms are always safe spaces to practice new strategies, offer students a range of possibilities for how to succeed in their learning, give our students constant feedback, and support knowledge transfer within and among our courses.

Perhaps not surprisingly, each of these areas overlaps with the tenets advocated in Universal Design for Learning (UDL) or Universal Design for Instruction (UDI) strategies. UDL/UDI teaching offers an array of strategies, aiming at a wide range of student abilities. One of my favorite resources on UDL is the [University of Connecticut website](http://www.facultyware.uconn.edu/) on Implementing Universal Design for Instruction in Post-Secondary Courses. The site offers [nine principles for UDI](http://www.facultyware.uconn.edu/UDI_principles.htm): equitable use; flexibility in use; simple & intuitive; perceptible information; tolerance for error; low physical effort; size and space for approach and use; a community of learners; and instructional climate. More important, they also offer a [plethora of examples for helping students with diverse learning needs](http://www.facultyware.uconn.edu/UDI_examples.htm) succeed in any classroom. Some of these strategies will already be familiar to ProfHacker readers, such as using a [rubric](http://chronicle.com/blogs/profhacker/tag/rubrics) to grade.

Try incorporating one or two UDL strategies to see if your students (and you) approach learning with the same energy and perseverance that we apply to Angry Birds. **Do you use UDL strategies in your classroom? Share in comments!**

Photo “Angry Birds Puts a Lid on It!” ([http://www.flickr.com/photos/etee/5639362994/](http://www.flickr.com/photos/etee/5639362994/)) by Flickr user etee ([http://www.flickr.com/photos/etee/5639362994/](http://www.flickr.com/photos/etee/5639362994/)) / Creative Commons licensed CC BY-SA 2.0 ([http://creativecommons.org/licenses/by-sa/2.0/deed.en](http://creativecommons.org/licenses/by-sa/2.0/deed.en))