Making The Case For Gaming In The Classroom

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**Abstract:**

Join us as we explore easy apps guaranteed to get 100% student engagement. Teachers will take away tools they can immediately use in the classroom. These apps generate data to help you drive instruction. Easily see which standards you need to reteach, as well as which students can be grouped together for differentiated remediation.

**Statement of the Problem:**

Traditional assessments do not offer real-time data that allows one to easily see what concepts need reteaching. Traditional assessments also do not always engage the learner. Digital gaming solves these problems. Digital gaming can be used for both formative and summative assessments.

**Literature Review:**

We live in a gaming society. In 2013, over $21 billion was spent in the gaming industry and over 50% of households have more than one gaming system (Schaffhauser, 2013). In 2016, that figure had increased to 25 billion. Our students use gaming as a means of play, but educators tend to discount the use of digital gaming for learning in the classroom (Mileham, 2008). As Mileham (2008) notes, “computer games genuinely seem to be changing the way we learn” (p. 195). Research is now showing that gaming actually enhances learning by developing our cognitive abilities. (Mileham, 2008). Think about it. Most games require visualization and multi-tasking. Games used as assessment tools, like Kahoot and Quizizz, also build mental agility. Thinking quickly and accurately builds those learning synapses students will use as young professionals.

According to Katie Salen, game designer and professor at DePaul University, “play is the way human beings learn about the world” (Schaffhauser, 2013). Gaming offers a better learning experience by combining fun with a personalized learning environment (Iulian, 2017). Additionally, gaming offers a way for students to continuously increase their knowledge by persistently working on a problem until it is mastered. Salen notes that games offer learning by doing (Schaffhauser, 2013). Students today tend to be kinesthetic learners. Rather than shutting down and missing an opportunity to learn which is what tends to happen in a traditional classroom, gaming – through its innate design - motivates students to play repeatedly until the skill is mastered (Schaffhauser, 2013).

When using gaming as an assessment tool, students are incorporating the 3Rs – reading, writing and arithmetic. Mileham (2008) states, “reading is a skill that unlocks further learning (p. 199). The inability to communicate effectively through words creates struggles not just in the classroom, but everywhere in society. She found that “gaming encourages interaction with other players and increased language learning makes a player more literate” (Mileham, 2008, p. 199).

Can a student learn through playing games for fun? Simulation games suggests that they do. As Mileham (2008) found in research, schools in Japan used Nintendo game machines to help students learn English. This increased language proficiency from 18% to 80%. Students noted that the exercised felt like a game. The learning process was fun, not tedious. Sim-City EDU challenges learners to solve real-world problems like decreasing pollution (Schaffhauser, 2013). Video games foster intellectual inquiry (Tierney, 2014). Tierney (2014) further argues that gaming leads to learning because the player’s affective and cognitive processes are engaged (p.219).

Games are a rich source of data. Statistics provide information on how students are performing, what standards need relearning, and how students need to improve. With simulation games like Sim-City EDU, data is recorded showing how students approach the problem, what actions are taken and where they may linger (Schaffhauser, 2013). This kind of real-time data is simply not obtainable in a traditional pen/paper format.

Gaming is not without its challenges, though. Making play mandatory may create rule-based experiences which feel like school, rather than fun (Iulian, 2017). Iulian (2017) argues that it is the effort, not mastery, that should be rewarded. This allows students to learn to see failure as an opportunity rather than being fearful and becoming unmotivated (Iulian, 2017).

**Methods:**

There are many different ways to use digital gaming in the classroom. From building digital stories using video game footage to question/answer games such as Plickers, Quizizz and Kahoot, assessing students’ knowledge doesn’t have to be boring! Some of the most popular question/answer games are Plickers, Quizizz and Kahoot.

Plickers is a powerfully simple tool that lets teachers collect real-time formative assessment data without the need of student devices. Teachers can then take that time to reteach missed concepts while the question is still fresh in the students' minds.

Quizizz uses fun elements like memes, avatars and gaming to get your students excited about learning! Create amazing quizzes in minutes by combining questions from their extensive library, or create your own. Analyze your students’ performance using the detailed reports. View them online or download them as Excel spreadsheets to use as either a formative or summative assessment. Quizizz will work on all your devices, it just needs a web browser. It also has dedicated iOS and Chrome apps for students.

Other kinds of assessment apps, like Equity Map, permit teachers to record data during discussions like Socratic Circles and Harkness discussions. Teachers may then display the data to show students how they performed during the discussion. This allows for students to reflect on their strengths and weaknesses.

**Recommendations for Practical Implementation:**

Start simply. Choose one or two tools a year that will allow assessing students in real-time, so re-teaching can be immediate while the concept is still fresh in everyone’s minds. Ask colleagues what tools they have found to be engaging and data-driven. Create a “tech team.” Get together with like-minded colleagues to share experiences. Hold professional development in-services to share your knowledge. Gaming apps are like every other tool in a teacher’s toolbox. Build your toolbox as you go along.

**Conclusion:**

Excite your students! Decrease test anxiety by establishing fun, creative ways to check your students’ progress and understanding of the concepts they need to master. Gaming allows students to move at their own pace. Your high-flyers can move through content quickly, while those students who may need more time can do so. Gaming promotes individualized education for each student. From a teacher’s perspective, real-time checking for understanding allows you to address misunderstandings immediately while the content is still fresh in your students’ minds.

**References**

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