Video games in Classrooms: An Interview with Zack Gilbert

Juan Li
Clemson University, juanl@g.clemson.edu

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Juan Li

Clemson University
Abstract

Studies have shown that game-based learning has great potential to facilitate students’ learning, when it takes place with effective instructional strategies of skilled teachers. This article aims to better understand game-based learning teaching practices through an interview with Zack Gilbert, a 6th grade teacher who has been incorporating video games Civilization IV (Civ) and Minecraft into his social studies classroom. Zack shared his experiences as a successful practitioner incorporating video games into a content area.

Key words: game-based learning, social studies, video games in classrooms
Video Games in Classrooms: An Interview with Zack Gilbert

The video game industry is one of the fastest growing industries in the United States, with economic gains surpassing both music and movie industries (Steinkuehler & Squire, 2014). The time people invest playing video games is stunning. For instance, it is reported that 45% MMORPGs (Massive Multiplayer Online Role-Playing Games) players spend more than 20 hours per week on MMORPGs, and 80% players reported that they have the experience of spending more than 8 hours continuously playing games in one session (Ng & Wiemer-Hastings, 2005).

The wild popularity of video games has resulted in a number of studies by educators (Gee, 2003; Prensky, 2001; 2006; Squire, 2011); they suggest that video games be used as “a constructive force” (Williamson, Squire, Halverson, & Gee, 2005, p. 105) in education due to their great learning potential. Empirical studies have confirmed that video games have great potential to promote critical thinking, problem-solving and leadership skills (Yee, 2006), support collaborative learning for online courses (Childress & Braswell, 2006), foster intrinsic motivation (Dickey, 2007), etc. In addition, video games have been applied in almost all domains of content learning, such as mathematics, health, history, and science etc. (Steinkuehler & Squire, 2014). For instance, the historical simulation game Civilization IV (Civ) is proved being effective in delivering content knowledge and triggering students’ interests (Moshirmia & Israel, 2010). These studies provide a good support for implementations of game-based learning which emphasizes on “achieving the particular objectives of given educational content through game play” (Kim, Park, & Baek, 2009, p. 801). However, good instructional strategies which are able to scaffold students’ performance
without losing the engagement of video games are crucial for effective game-based learning (Young et al., 2012; Steinkuehler & Squire, 2014).

This article aims to better understand classroom practices with game-based learning through an interview with Zack Gilbert, a 6th grade teacher and podcast host of EdGamer in Normal, Illinois, and a practitioner pioneering video game integration in his classroom. In January 2016, I was honored to have a conversation with him regarding his practices and ideas towards using video games to facilitate learning. He shared the trajectories of his teaching philosophy, practices of integrating Civ and Minecraft to his classroom, advices on assessing performance, and opinions on future development of game-based learning.

Ito (2015) divided participation and media into three genres: entertainment, academic, and construction. Video games such as World of Warcraft (WoW) or Civ which center on exploration and discovery, with embedded educational references belong to the first genre. A number of studies (Moshirnia & Israel, 2010; Squire & Barab, 2004; Waston, Mong & Harris, 2011) found that historical simulation games can engage students and result in effective learning of content knowledge. By contrast, the academic genre centers on the content knowledge and instructions. Ito (2015) believes that the construction genre is the most innovative one, which “brought the spirit of construction-oriented toys and artistic tools into a media format” (p. 61). In Zack’s social studies class, with the introduction of the entertainment game Civ and construction game Minecraft, together with his skillful scaffolding, he makes learning an engaging and rewarding process.

**Why Game-Based Learning?**

When Zack first started teaching, he wanted to “teach just like best teachers”, but his
mentor suggested that although learning from others is helpful, teaching in a way that fits one’s own personality and strength is even more important. In the first few years of his teaching career, by trying various types of instructional strategies, Zack found himself enjoying the way students discover and construct knowledge on their own and he realized that students are learning better when they are actively participating. His mentor confirmed his ideas and suggested that active learning should make students exhausted at the end of the day, instead of teachers. His own explorations, together with his mentor’s guidance, changed Zack’s teaching philosophy and formed his unique instructional approach that fits his own strength. He tried to incorporate simulations in his classroom to engage the students in collaborative practices with each other, and later adopted board games. In 2005, when he was playing Civ, he became excited when noting that the game aligned with his social studies curricula. He discussed this potential for game integration with his advisor and they worked out a plan for his master’s project to demonstrate how Civ could produce effective learning results in the classroom. This was the impetus of his of game-based teaching journey.

Currently Zack has a game club that he runs every other Friday. Fifty to 60 junior high school students regularly attend the club. In addition, a couple of parents, teachers, and local game owners have become involved. Zack is also working on another project, game creation, to engage students to design role-playing or board games. He believes this will allow them to demonstrate their understandings of ancient civilization, and supplements their work with resources provided in class. Presently he has “20% of his students who are addicted to coding” on Code.org (code.org) to create games there.

Zack’s teaching beliefs have transformed from “trying to be the owner of all knowledge”
to believing that “it is better when the students are actively engaged in what they are doing and actually creating”.

**Practices of Game-Based Learning**

For Zack, game-based learning is “utilizing a game as a tool so students can understand different targets, goals or standards”. Zack described his classroom as “project-based”, with the target of having students “create something”, or “demonstrate their knowledge through an assessment or something they create”, as he believes that being engrossed and actively creating the history results in an effective learning and long-term memory. Instead of directly telling his students the historical facts, he uses a basic template of “playing—demonstrating—modelling” in his social studies class to realize the learning objectives.

Zack’s students are allowed to ‘replay history’ (Squire & Barab, 2004) on *Civ* for five days, then they need to journal or categorize the content to demonstrate what they have acquired from playing *Civ*. To engage students in further reflection, students finally model their own city of ancient civilization on *Minecraft* by applying the content knowledge obtained from game-playing practice and other resources provided. Zack’s next plan is to involve students in game creation activities by designing historical scenarios on their own.

Zack respects students’ diverse backgrounds and different learning preferences and although he estimates 99% of his students are engaged by the games, students who are not interested in playing games are allowed for alternative learning approaches. Zack has accumulated a large ‘toolbox’ over his 21 years’ teaching experiences, which enables him to adopt different tools to reach different students. For example, depending on their preferences, students are free to draw out the city plans manually, or on Google Draw, or even physically
construct their city by using Legos, etc.

Assessing Learning Results

Gee (2005) suggests that different from traditional classrooms, we can never use a traditional test to evaluate students’ learning in video games, because playing games itself assesses your understanding. To that end, Zack adopts a qualitative approach to measure students’ learning results based on observations and interviews. For each class, he has learning goals that the students need to reach. In order not to interrupt the “flow” of game play, he walks around the room and observes and takes notes when the students are playing the game. After they finish playing, he asks them to fill out a chart by categorizing what have known from the game. To gather more information, he has a conversation with them on assessing different learning targets. For example, asking the students to explain the division of labor in Egypt. When the students are creating their own products on Minecraft, they are required to explain reasons and approaches of their building work to make sure they are heading the targets.

However, for unexperienced teachers who don’t possess the skills to understand how to observe effectively or what they are looking for when using a game, Zack suggested data analysis.

Choosing an “Appropriate” Game

Choosing an “appropriate” game for the class is a headache for many teachers. The games must be engaging, utilize educational references, and include no sensitive content. As Zack said, Civ is effective, but quite limited in the content area of history. And some of its content, such as killing people, is not appropriate for everyone. Exploring games on his own,
seeking for advice from colleagues, and searching for online resources are basic approaches for him to find the most suitable games. However, Zack’s students are fortunate in that they are not only allowed to try games in the game club, but also participate in the curriculum design by proposing suggestions. Finding games is a tiring process of trial and error, but Zack makes it a collaborative and engaging activity of discovery.

Zack suggested that teachers must know the games well before they can be used in the classroom, especially complex games such as Civ. Teachers may have to experience a difficult time to figure out which parts of the games can be used, and how to put the unit together. He shared that the first few years of using Civ were not always as successful as the work he does now. As for teachers who are interested in game-based learning but limited by time and resources, Zack suggested that teacher training and online resources need to be provided. He himself is now offering help for the construction of a website, Playfullearning.com (playfullearning.com), to provide a platform for teachers to exchange information and learn.

**Development Potential of Game-Based Learning**

Based on his own practices, Zack thinks that one of the next revolutions is on assessment, “being able to capture data within the game and being able to chart and graph what in a format that useful for the teachers”. Data and graphs collected at present are useful for game developers, but are not helpful for teachers (or students and parents) to track, model, and illustrate what choices and decisions their students are making in order to ascertain what they are really learning through the video game. Another big step, according to Zack, is virtual reality, in that students can be engaged in the content. For example, students are able to learn
math and science by virtually creating a car without expensive costs. Zack thinks that being engrossed in role-playing games is “a human characteristic”. He took the hollow deck in Star Trek as an example to illustrate the real feeling of being part of the story and virtually transferring themselves into a physical world, and believes that “real feeling” will be the future of learning.

Zack is quite optimistic about the future, and he is sure that some major breakthroughs will be occurring soon. He mentioned EdtechBridge, a group called of educators and game developers, who are working together to make better products of education, Google’s Cardboard (https://www.google.com/get/cardboard/), and a group of researchers at MIT who are analyzing data generated within games from a gaming club to provide accurate assessments for teachers.

**Conclusion**

Game-based learning environments, together with skilled teachers, can engage students in effective learning (Squire, 2010), and good history teachers in game-based learning environments should lead students to reflect on their game play and form an accurate understanding of history (Charsky & Mims, 2008). Teachers like Zack Gilbert exemplify successful incorporation of digital games into a content area, and the qualities a good teacher in this digital era should have.

Zack stressed more than one time that he teaches in the way that fits his own personality and strengths. He suggested that teachers should work out their own ways to engage students, not necessarily in a digital way. However, you can never be a successful game-based learning teacher if you don’t have any passion toward digital games. Zack’s message is not
exclusively related to gaming, instead, he stresses the importance of finding your own teaching approach and preparing a variety of tools in order to reach diverse students.
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