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Personalized Learning in Practice

Gaming Pedagogy in a Personalized Classroom

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Abstract

This panel included researchers, school leaders, digital media experts, and K-12 students, discussing how personalized learning school design and practice supports gaming and game design. School leaders in these emerging spaces design for learning and fully embrace gaming as a useful tool and form of classroom pedagogy. Halverson, et. al (2015) explain, “In personalized learning, educators develop environments in which students and teachers together build plans for learners to achieve both interest-based and standards-based goals” (p. 1). Our panel discussed key findings from our study on personalized learning, including: students are highly social and collaborative when gaming and using diverse digital learning tools in the classroom, which Halverson, et. al (2015) classify as a socio-technical environment (p. 3). The panel also discussed how gaming happens in these environments in three district ways: game creation by the students, a teacher-designed game-based incentive structure, or implementation of existing games.

Panel Topic and Importance

Personalized learning environments are ripe with opportunity for innovation and implementation of good ideas and new practices. We discussed ways in which these spaces create opportunities for students to play and design games through a flexible, multidisciplinary, and innovation-centered structure. (Squire, et. al, 2003)

McGonigal (2011) seeks to define a game, “All games share four defining traits: a goal, rules, a feedback system, and voluntary participation,” (McGonigal, p. 21). The classrooms we featured share these traits, and we have identified how gaming practices emerge in these classrooms in three ways:

1. Goals – Students use technology to set and meet goals. Game-based levels and achievements are often built into the classroom software, but students also implement their own games and goals into their learning through design and creative goal-setting.
2. Rules – Games fit seamlessly into learning, even when the learning is framed around a set of core standards or learning targets. Students and teachers collaborate to find and create engaging

games that meet the goals and standards of the student's learning plan.

3. Feedback system – Students and teachers collaborate around technologies in the classroom. We see students working online using various platforms and in person around common devices to produce collaborative work. Teachers will communicate with students virtually and in person around the projects, goals, and learning of the students.

4. Voluntary participation – Students in the schools of our study have agency over their learning through selection of tools, representation of learning, and interest-based topic selection, allowing them to opt into their learning.

We have documented that teachers in personalized learning schools allow students agency over path, time, pace, and place; ask questions such as, What do you want to know? How do you want to learn it? How will you show what you've learned; and have changed their assessment practices to collect data around progress, process, as well as performance, broadening the meaning of success.

Our discussion is rooted in Halverson's (2015) summary of our study's focus:

(The schools we studied) “develop socio-technical ecologies, that is, environments where technologies are selected by educators to address the interests and needs of all learners. The ecologies have three dimensions:

1. all schools provide information technologies that allow students to coordinate and document learning processes and outcomes;
2. all schools provide computer-adaptive assessment and curriculum programs that individuate skill and content development learning in math and reading;
3. some schools create digital media spaces to foster creativity in activities such as gaming, coding, performance, production and making.” (p. 1)

In these information-sharing, technology-rich, creative spaces, gaming is often welcomed in both practice and philosophy.

Panel Summary

Our panel asked participants to share questions around personalized learning and classroom gaming. Here are themes identified by the large group discussion:

1. **Getting Started.** Participants were interested in knowing how to start a personalized learning program and how to overcome challenges of the process. What is personalized learning and what is its role in gaming? What are the first steps and timeline to implement personalized learning? What do we mean by personalized learning compared with other definitions?
2. **Classroom Design.** Participants were interested in learning more about the design of personalized learning classrooms. Participants wondered what the Personalization in Practice team looks for when documenting forms of student-centered pedagogical design.
3. **Curriculum Alignment.** Participants were concerned with how games and personalized learning aligned with standards. How do you bridge games with traditional instruction?

4. **Student Agency.** Participants discussed ways in which games offer a natural platform for increased student agency, thereby allowing the educator to naturally shift to a greater facilitation role and away from the role of sole designer of learning experiences. How do you tap into kids' passions? And what are some examples of student choice?

5. **Games 3 Ways.** Participants wondered how personalized learning schools support gaming in schools and how gaming is implemented in these spaces. We discussed the ways in which games are used and created in classrooms, in three ways: implementation of existing games, game creation by the students, and game-based incentive structures developed by the teachers. What do we mean by gaming pedagogy versus game-based learning?

6. **Scalability.** Participants were concerned about scalability of time-intensive community-building and game development. How do you scale games school-wide? How can teachers find the energy to implement personalized learning and gaming?

7. **Cultural Relevancy.** Participants were interested in how student interest facilitated relevant curriculum. How do we think about games and cultural relevance?

Summary of Time Use During Panel (1 Hour)

Our panel included: introduction of panelists (10 min); poll of the audience to gauge their background (5 min); collection of questions from the participants regarding personalized learning and gaming (10 min); collaborative panel discussion of personalized learning, game implementation strategies, and key research findings (30 min); closing comments and questions from the panel and audience (5 min).

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