Connecting to Possibilities: Integrating Technology in Juvenile Justice Education

A small group of Computer Science students at the Massachusetts Department of Youth Services (DYS) Robert F. Kennedy Treatment Center in Westborough were so engaged in building and programming robots, they hardly noticed visitors entering their classroom. Two boys, who were manipulating an animated version of the robot on a laptop described how they were programming the robot's movements as their classmates assembled it. When asked what they thought about their assignment, one of the boys replied, “This is really, really cool.”

Their teacher, Gary Abrams, was equally enthusiastic. “If our students have to do 15 problems on a worksheet every day, it’s not as easy for them to see how that fits into their lives, but working on a laptop, writing code, and building robots—this feels real to them…and it’s something they haven’t done before. They’re excited to go to class now.”

Abrams was one of four DYS educators who participated in an intensive Technology Bootcamp last summer in Portland, Oregon through the Unjammed 1.0 Blended Learning Initiative. Over the past school year, these four Blended Learning Fellows piloted a variety of web-based technologies in DYS classrooms throughout the state. Unjammed 1.0 was developed by the Center for Educational Excellence in Alternative Settings (CEEAS), to transform educational programs in juvenile justice settings by training educators to integrate innovative, low-cost online learning tools into their instruction, and thereby change policies or procedures prohibiting the use of such tools. DYS and their educational partners, Collaborative for Educational Services (CES) and Commonwealth Corporation (CommCorp), were among seven juvenile justice agencies nationwide selected to participate in the program in 2014. The Unjammed 1.0 initiative supports the principles and practices recommended by the US Departments of Justice and Education in their recently published report, Guiding Principles for Providing High-Quality Education in Juvenile Justice Secure Care Settings. These guiding principles and the corresponding recommended core activities serve as a blueprint for educational excellence in juvenile justice schools.
The thoughtful use of technology within secure settings aligns to Guiding Principle Four, offering “rigorous and relevant curricula aligned with state standards that utilize instructional methods, tools, materials, and practices that promote college- and career-readiness.” This principle is backed up by longitudinal studies that show the link between exposure to a robust curriculum and post-high school achievement (Adelman, 2006).

Blended learning tools are also important tools for personalizing the learning process which empowers students to control what, how and when they learn. A recent study on the impact of interest-based learning demonstrates that students learn abstract concepts more readily and efficiently when learning focuses on material that relates to their own interest.

The federal report discourages over-reliance on online credit recovery and other computer-based courses, but highlights the creative use of web-based tools as essential to developing skills and experiences students need to succeed in the 21st Century. “Today’s students and teachers use the Internet in many facets of the teaching-learning process, and allowing system-involved youths to be deprived of this educational tool promotes inequities.”

Security concerns pose a real barrier to the use of online learning in secure settings; however there are now many filters, firewalls and classroom management tools, such as Netcontrol2, which allow teachers to monitor students’ internet use real-time and oversee their progress on assignments.

Abrams believes that blended learning technologies have the capacity to “revolutionize teaching and learning inside DYS facilities.” By integrating these tools across the curricula, he said, DYS can give students the skills and experiences they need to be successful in the 21st Century. “We should be striving not just to be good juvenile justice schools, but to be good schools,” he said.

Blended Learning at DYS Facilities around Massachusetts

Over the past school year, Abrams and his colleagues piloted their own blended learning projects specific to the needs of their school. Below are some highlights of their work in different regions of the commonwealth:

Southeast

In Goss 1 and 3, social studies teacher Dana Buckner used the K-12 social learning network, Edmodo to develop an online curriculum that supplements hands-on vocational projects for students in his class who already have a high school diploma or its equivalent (GED or HiSet). This student population continues to grow in DYS as more youth reach this academic milestone and want to continue to learn and develop skills that will support their success when they return to their home community.

The training gives these students a taste of different trades by completing small projects, such as building a small engine or wiring an electrical outlet. The online portion of the curriculum allows students more freedom to learn at their own pace. Buckner says the program has been helpful in engaging these students, who may otherwise sit idly while other students work on academics.

Western

English and reading teacher Brian Barrett worked collaboratively with his fellow teachers at Springfield Residential Treatment Center to fully integrate technology across all content areas.
While security policies prevent students from being able to access social media sites, Barrett sees the facile and strategic use of these platforms as critical career and college readiness skills, helping them connect with others socially and professionally. Barrett’s class researched the impact of social media in public awareness of social justice issues, such as the Arab Spring or recent police brutality cases in the US. Through the use of Edmodo, Barrett developed simulated social media sites that mimic Twitter, Facebook and Instagram. The project allows students to network with their classmates, sharing their thoughts on social justice issues relevant to their own lives. As they work with these tools, they learn how to represent themselves on social media, and appropriately debate ideas.

Barrett worked with math teacher Jason Richmond to develop a simulated stock market, aligned with state math standards on probability and percentages. Barrett said that students became so engaged in the project, they started checking their stocks several times a day. “They actually got mad at us when the internet was down one day because they couldn’t get online to check their stocks,” Barrett said. He added that in all subject areas, “student engagement has gone way up since we’ve added the blended learning tools.”

Central

Worcester: Sarah Moilanen, who works at Harvard House, a short-term treatment program, used Edmodo to develop a virtual book club. Through the club, students analyze and summarize assigned reading using a variety of online tools that develop multi-media communication skills. They use Audacity to narrate their book summary, or use Photostory or Microsoft Paint to illustrate it.

Moilanen finds that blended learning tools allow her to personalize her teaching to meet the needs of a diverse student population with a wide range of reading levels and learning styles. She combines face-to-face and online lessons, giving students the chance to learn at their own pace. Some students gained even more control of their learning by using Edmodo to create their own learning path.

Northeast

Westborough: In addition to integrating robotics and computer programming into the curricula, Gary Abrams also utilized web-based tools to develop an online portfolio that captures students’ best work. The portfolio is accessible through the web, so that students can showcase what they learned and worked on while they were in DYS schools with educators from their sending schools. The portfolio is now utilized by all teachers at RFK Treatment Center and should a youth be moved to another program throughout the DYS continuum of care, can be accessed by both the student and the student’s new teachers.

National Blended Learning Initiatives

All participating fellows were required to develop and teach a computer coding class, utilizing materials and resources available through CEEAS and the national Hour of Code initiative. The Fellows also utilized Scratch, an online learning community through which students program their own games, stories and animations, and share them with students around the world.

Blended Learning Fellows were also provided the option to become certified as College Level Exam Program (CLEP) proctors and Adobe Youth Voices trainers. CLEP proctors are able to teach post-secondary courses, and students completing these courses earn credits at colleges across the United States. As Adobe Youth Voices trainers, they can provide DYS youth with access to the Adobe Creative Suite for the purposes of developing their creative skills to tell stories using advanced digital media tools.

DYS students at the schools mentioned above also participated in several national Unjammed initiatives, such as a poetry contest, a read-a-thon, and a digital recording project in which students recorded themselves reading a child’s book and then gave a CD of the recording to a younger sibling or their own child for Christmas. Some of these projects engaged students who had previously experienced little success or interest in academics.

Moilanen recalls one student “who let it be known to all how much he hated... student engagement has gone way up since we’ve added the blended learning tools.”

— Brian Barrett, DYS Teacher
“If our students have to do 15 problems on a worksheet every day, it's not as easy for them to see how that fits into their lives, but working on a laptop, writing code, and building robots—this feels real to them...and it's something they haven't done before. They’re excited to go to class now.”

— Gary Abrams
DYS Teacher and Blended Learning Fellow

The Future of Blended Learning at DYS

CEEAS recently awarded a second year of technical assistance and support to DYS and another cohort of CES teachers. This summer, four new Fellows will be headed to Seattle, Washington for the Unjammed 2.0 weeklong blended learning Bootcamp. These fellows will be mentored by current fellows throughout the upcoming year as a long term strategy to ensure success breeds more success and these opportunities are afforded to all youth across the DYS continuum.

Lorelle Allessio will continue to provide job-embedded training and support to the new fellows and support Abrams in a broader roll-out of the online student portfolios to DYS facilities around the state.

“The training and support through CEEAS helped create a classroom where all can take risks resulting in deeper, meaningful learning...I am really proud of the progress we've made and I look forward to building the capacity of DYS with both the new and returning Blended Learning Fellows,” Lorelle Allessio said.

“This initiative has been a fantastic experience for both students and teachers,” agreed Woody Clift, Director of the DYS Educational Initiative at CES. “Teachers have added another dimension to their craft and are more inspired. Youth are excited to learn and contribute to class projects. And, together they are proving that blended learning, with the right supports, is a game changer.”

Clift said that the pilot projects implemented by Blended Learning Fellows over the past year will become “learning labs”, so that other teachers throughout the system can learn from them and ultimately integrate these tools into their own teaching practice. In the meantime, new fellows will innovate new blended learning projects over the next school year.

With continued training and technical assistance through Unjammed in Summer 2015, Clift hopes that blended learning “will blossom throughout the DYS educational system across Massachusetts.”

Resources:
Guiding Principles for Providing High-Quality Education in Juvenile Justice Secure Care Settings.
US Department of Education and US Department of Justice, December 2014
www2.ed.gov/policy/gen/guid/correctional-education/index.html

The Toolbox Revisited: Paths to Degree Completion from High School Through College.
By Adelman, Clifford
files.eric.ed.gov/fulltext/ED490195.pdf

Technology-Enabled Personalized Learning Summit: Findings and Recommendations to Accelerate Implementation, 2014

Using adaptive learning technologies to personalize instruction to student interests: The impact of relevant contexts on performance and learning outcomes.
By Walkington, Candace A.
apa.org/journals/edu/105/4/932

Center for Educational Excellence in Alternative Settings Unjammed Initiative: www.ceeas.org/unjammed