NDTAC | The National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth

September 2020
Washington, D.C.

ISSUE BRIEF

Enhancing Facility-Based Education Programs Through Digital Learning

Ramón L. de Azúa

neglected-delinquent.ed.gov

The National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth

This document was developed by the National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth (NDTAC), which is funded by a contract awarded by the U.S. Department of Education to the American Institutes for Research (AIR) in Washington, D.C. The mission of NDTAC is to improve educational programming for youth who are neglected, delinquent, or at risk of academic failure. NDTAC's mandates are to provide information, resources, and direct technical assistance to States and those who support or provide education to youth who are neglected or delinquent, to develop a model and tools to assist States and providers with reporting data and evaluating their services, and to serve as a facilitator to increase information sharing and peer-to-peer learning at the State and local levels. For additional information on NDTAC, visit https://neglected-delinquent.ed.gov/.

Suggested Citation

de Azúa, R. L. (2020). *Issue brief: Enhancing facility-based education programs through digital learning.* Washington, DC: American Institutes for Research, National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth.

Enhancing Facility-Based Education Programs Through Digital Learning

Introduction

In 2014, the U.S. Department of Education (ED) and the U.S. Department of Justice (DOJ) released "Guiding Principles for Providing High-Quality Education in Juvenile Justice Secure Care Settings." This report expanded on prior ED/DOJ guidance and presented five guiding principles for providing high-quality education in juvenile justice secure care settings. The fourth guiding principle emphasized the importance of providing youth who are incarcerated with "rigorous and relevant curricula aligned with [S]tate academic and career and technical education standards that utilize instructional methods, tools, materials, and practices that promote college- and career-readiness" (ED & DOJ, 2014, p. 16). To further this principle, the report underscored the importance of integrating technology to enhance digital learning opportunities that lead to positive academic outcomes for youth in secure care settings.

Supplementing classroom instruction with digital learning opportunities can provide students in secure care settings with access to high-quality instructional materials while also allowing them to explore other important tools and materials such as college courses, life skills programs, literary classics, research materials, and encyclopedias. Like all students, students in secure care settings have witnessed not only the rapid development of increasingly more advanced computers and electronic devices but also substantial exposure to digital content. In today's schools, students of all ages consume and create digital content. Such digital content serves as a motivational tool for educators to get students engaged in their education. In addition, learning to use technology for digital learning is vital for students in secure care settings to gain a perspective on opportunities for lifelong learning and crucial to their ability to use technology for searching and applying for employment, creating résumés, and searching for continuing education or certification programs to become successful and productive citizens when they return to their home communities (National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth [NDTAC], 2018).

Consider the Purpose of Title I, Part D

Secure care facilities that administer Title I, Part D programs must provide youth in their care, including youth with disabilities and English learners, with the same opportunities to meet challenging academic content standards the youth would have if they attended a regular public school (ESSA, section 1401).

In 2016, ED updated the National Education Technology Plan: "Future Ready Learning: Reimagining the Role of Technology in Education." The plan emphasized that "all students deserve equal access to (1) the [i]nternet, high-quality content, and devices when they need them and (2) educators skilled at teaching in a technology-enabled learning environment" (Thomas, 2016, p. 30). Because digital learning is now common in public school classrooms across the United States and to fulfill Title I, Part D requirements, students in secure care settings should have access to high-quality digital learning opportunities that are comparable with those provided to students attending public schools.

To advance these goals, administrators and practitioners working in juvenile justice facilities would benefit from the enactment of statutes or formal policies at the state level that provide guidance for the implementation of programs to deliver high-quality digital learning opportunities for students in secure care settings.

What Is Digital Learning?

Title I, Part D of the Every Student Succeeds Act (ESSA) does not specifically define digital learning. However, ESSA's Title IV, Section 4102 (3) provides the following definition of digital learning that may be helpful to Part D coordinators, even if they are not required to use this definition:

"The term 'digital learning' means any instructional practice that effectively uses technology to strengthen a student's learning experience and encompasses a wide spectrum of tools and practices, including—

(A) interactive learning resources, digital learning content (which may include openly licensed content), software, or simulations, that engage students in academic content;

(B) access to online databases and other primary source documents;

(C) the use of data and information to personalize learning and provide targeted supplementary instruction;

(D) online and computer-based assessments;

(E) learning environments that allow for rich collaboration and communication, which may include student collaboration with content experts and peers;

(F) hybrid or blended learning, which occurs under direct instructor supervision at a school or other location away from home and, at least in part, through online delivery of instruction with some element of student control over time, place, path, or pace; and

(G) access to online course opportunities for students in rural or remote areas."

The Oregon Youth Authority: An Example

The Oregon Youth Authority (OYA) is a model that illustrates how the adoption of statutes and policies advances the delivery of safe and secure access to high-quality digital learning opportunities for students in secure care facilities. In 2010, OYA adopted "Oregon Administrative Rule Chapter 416, Division 40" (OAR 416-40), which instituted guidelines for the acceptable use of electronic networks by youth in OYA facilities. The regulation governs the use of specific computers, hardware, software, storage media, and networks by youth at OYA facilities to access education and employment information and facilitate their successful reintegration from confinement into the community.

OYA operates 10 secure care facilities across Oregon, housing youth ranging from 12 to 24 years old. With the authority provided by OAR 416-40, a partnership between OYA and the Oregon Department of Education provides students across their facilities with

- opportunities for high school credit recovery and online college classes, where older youth have opportunities to attain associate's, bachelor's, and master's degrees;
- computer-based vocational education in areas such as auto mechanics, welding, and commercial transportation;
- fully engaged internet access for high school classes in many of OYA's facilities; and
- access to a vast library of educational content that is available directly from a local server—not connected to the internet—on computers in both classrooms and the living units.

Effectively Using Technology to Engage Youth

In an interview conducted for this brief, Frank Martin, the former OYA education administrator, talked about his experience at OYA and the effect that the integration of digital learning has had on youth at OYA facilities.

> *I have learned that youth in our secure care schools are hungry for a keyboard. When youth enter the system, everything is taken away from them. Suddenly, a population raised in the age of the internet, with access to smartphones, tablets, and computers, loses all access to those devices. Giving them proper guidance and opportunity, they can use technology to catch up on their credits. I have seen students who entered the facility with only two high school credits earn a bachelor's degree. I found that if you engage youth in their education, they can focus. In Oregon, we found that the use of technology is an effective way to reengage youth in their education. We saw these things happen in Oregon, so we know it is possible in other States.*

Safety and Security Concerns

Safety and security concerns may be an associated risk when students in secure care settings access the internet. There may be fears that youth will view prohibited websites, contact victims, or make other types of improper contacts. These concerns merit substantial caution and attention. However, cybersecurity tools, such as firewalls, filters, and other methods, can effectively limit students'

access to the internet, can permit access to educational sites only, and are widely available to help address technology-related concerns (ED & DOJ, 2014). By using these tools, or through simulated internet scenarios, where students work on computers loaded with educational content networked to a local sever that has no direct access to the internet, students may reap the benefits of digital learning opportunities with substantial reduction or complete elimination of the risk of any improper use of technology.

Digital Learning Through Simulated Internet Scenarios

Frank Martin currently leads correctional education initiatives for World Possible, a nonprofit organization dedicated to providing digital learning opportunities to underserved communities in both the United States and developing countries across the globe. Cognizant of the safety and security concerns related to granting youth in secure care settings access to devices connected to the internet, World Possible developed technology solutions to allow youth in these facilities to access more than 150 openly licensed sources (i.e., sources with no licensing fees) without an internet connection. An on-site server provides an independent hub for digital content. Facility computers then connect to this server by either cable or Wi-Fi. This configuration provides a simulated internet experience, where students using a computer access educational websites and other digital learning content hosted on the server, including complete video libraries from sites such as Khan Academy® and TED Talks®. World Possible also developed secure laptops to host content from openly licensed sources for use in the classrooms and living units of correctional facilities. This secure laptop has no data ports, camera, or Wi-Fi card that would allow connection to the internet. For more information, see http://www.worldpossible.org/us-justice.

Similarly, Edgenuity®, an online publisher of digital learning content for public and private school students in grades 6–12, offers its copyrighted content catalogue to secure care facilities. By using an on-site server, students can access Edgenuity's digital learning content through a simulated internet experience. Its offerings include concept and credit recovery courses, as well as core and advanced curriculum courses. For more information, see http://www.edgenuity.com.[1]

State and local agencies serving youth in secure care settings may consider implementing or enhancing existing collaborative agreements with State and/or local education agencies to gain access to the digital learning programs implemented in the public schools of their State. Enhanced interagency collaboration designed to leverage digital learning resources used in public schools could help provide students with continuity of curriculum and services while in secure care facilities and facilitate their transition back to their home school and community.

Enhancing Digital Learning Opportunities in Secure Care Settings

While relating his own experience with the OYA, Frank Martin suggested that a good starting point for enhancing students' access to technology and digital learning opportunities is to first look within the facility for faculty and staff members who have advanced interest, knowledge, skills, and ability in working with computers and computer networks. This process can be an effective way to begin conceptualizing the creation of a "technology integration team" at the facility, with assigned roles and responsibilities to facilitate and advance the process, as done similarly in Oregon, Massachusetts, and Washington.

The facility technology integration team or committee should consist of relevant parties from the administrative and academic sides of the facility. This committee can do the following:

- **Review policies** to identify institutional or legal barriers to enhancing current access to technology and high-quality digital learning resources for both faculty and students in the facility.
- **Approve policies, procedures, and practices** to monitor students' online behavior and enforce appropriate responses to the misuse of technology.
- **Evaluate and make decisions** regarding technology (hardware and software) purchases and network infrastructure needs at the facility, which should include solutions to enhance access to high-quality digital learning resources.

[1] The examples from World Possible and Edgenuity illustrate secure digital learning solutions designed to serve student populations in secure care settings. Neither ED nor NDTAC endorse or promote the engagement of specific service providers.

- **Assess the professional development needs** for educators and staff to successfully deploy and implement enhanced access to digital learning opportunities for students. Research cited in the National Education Technology Plan underscored that professional development training "should focus explicitly on ensuring [that] all educators are capable of selecting, evaluating, and using appropriate technologies and resources to create experiences that advance student engagement and learning" (Thomas, 2016, p. 25).

Many students in secure care settings have educational needs different from those of students in traditional education settings. Next, we present information on innovative digital educational resources specifically designed for youth in secure care settings that are currently implemented and expanded on in secure care facilities, focusing on STEM (science, technology, engineering, and mathematics), career development, and transition support.

Innovative Digital Learning Initiatives Designed for Students in Secure Care Settings

Project RAISE

The Center for Youth Engagement at the University of Massachusetts (UMass) College of Education in Amherst developed an initiative titled "Reclaiming Access to Inquiry-based Science Education (RAISE) for Incarcerated Students: An Investigation of Project-Based Inquiry Science within a Universal Design for Learning Framework in Juvenile Corrections Settings." The purpose of the project is to help improve and enhance the education of youth in juvenile justice facilities by using technology. The National Science Foundation funded Project RAISE through a grant. Associate Professor Michael Krezmien led a team of UMass faculty, staff, and students in the development of computer coding for a science multimedia textbook and STEM career pathway development curriculum accessible through an iPad application.

The first four weeks of the science curriculum cover the study of ecosystems. The fifth week is a STEM career pathway curriculum based on personal values. Using the application, students perform an individual assessment and select the personal values most important to them. Students then access video interviews with professionals in the STEM field who explain how their values align with their career and what educational and career pathways led them to their current position.

In collaboration with the Massachusetts Department of Youth Services, Professor Krezmien and his team conducted a four-month usability study for the application with students and faculty members in juvenile justice facilities in Westfield and Dorchester, Massachusetts. Twelve students and two faculty members participated in the study, as part of a co-design process, where students and faculty provided feedback and suggestions for improving functionality and content. As part of this process, after completing each section of the curriculum, the students answered a series of questions, such as the following:

- Did you find the information important?
- Is this information interesting?
- Does this process help provide a good learning environment?

During an interview conducted for this brief with Professor Krezmien, he shared his and the UMass team's reflections on the study.

> *What was profoundly impactful for us was the high quality of the suggestions the students provided for the functionality of the application. On the other hand, students uniformly stated that they found the information to be important, and that they found the information to be interesting, especially when compared with their prior experience learning science.*

Additional phases for the RAISE initiative at UMass include expanding the science curriculum on the iPad and a research study to explore whether STEM career exploration leads to increased motivation in students to complete the relevant coursework necessary to pursue a job in STEM. A three-minute video on Project RAISE presents an example of STEM learning for youth in secure care facilities.

STEM Education, Life Skills Training, and Improving Transition Outcomes

The Project RAISE team at UMass joined with the Mary Lou Fulton Teachers College at Arizona State University (ASU) to develop an iPad application that will serve as the digital platform for a new STEM and career development curriculum for students in secure care settings in Arizona. This partnership, also funded by a National Science Foundation grant, is part of ASU's work with youth in secure care settings. In an interview conducted for this brief with Heather Griller Clark, the principal research specialist leading the project for ASU explained some of the goals of the joint project.

The foundation for the STEM and career development curriculum [that] we are designing for the iPad is based on the framework of Merging Two Worlds, which is an online life skills/transition-based curriculum developed by the Arizona Department of Education's Secure Care Education Committee. We are taking the cognitive restructuring components, plus the decision making and preparation for transition from Merging Two Worlds, and focusing them on a STEM curriculum, with an emphasis on transition to work. On this project, we are focusing on a strong connection to local employers. An Employers Advisory Board will review the curriculum prior to implementation. This review will help us ensure that the curriculum we deliver through this multimedia digital textbook platform is not only engaging for our youth but also practical and relevant so that youth see the opportunity of being meaningfully engaged in work after release.

Conclusion

This brief illustrated how digital learning opportunities and technology can significantly increase access to high-quality learning materials, curricula, and effective online learning tools to help youth in secure care settings develop expertise in shaping personalized learning and future goals. The following are takeaways that practitioners, agency leaders, policymakers, and other stakeholders may want to consider as they think about how to best realize the potential for positive outcomes that integrating high-quality digital learning can deliver for youth in secure care settings:

- Widely available and effective methods and tools substantially reduce or eliminate the risk of students in secure care settings improperly using technology.
- Experience from the field shows that efficient implementation of digital learning opportunities can serve as an effective tool to reengage youth who disengage from their education.
- As shown by the OYA experience, the adoption of statutes and policies can greatly facilitate the advancement and delivery of safe and secure access to high-quality digital learning opportunities for students in secure care facilities.
- Collaboration focused on digital learning programs with surrounding school districts could provide opportunities to implement digital learning initiatives that serve to provide continuity of curriculum and services for students once they enter secure care and when they return to their home school and community.

References

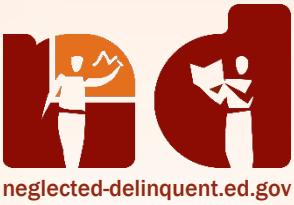
Every Student Succeeds Act of 2015, Section 4102 (3), *Student Support and Academic Enrichment Grants,* codified in 20 U.S.C. § 7112 (3). Retrieved from https://www.govinfo.gov/content/pkg/USCODE-2018-title20/html/USCODE-2018-title20-chap70-subchapIV-partA-subpart1-sec7112.htm

Every Student Succeeds Act of 2015, Section 1401, *Prevention and Intervention Programs for Children and Youth Who Are Neglected, Delinquent, or At-Risk,* codified in 20 U.S.C. § 6421. Retrieved from https://www.govinfo.gov/content/pkg/USCODE-2018-title20/html/USCODE-2018-title20-chap70-subchapI-partD-sec6421.htm

National Technical Assistance Center for the Education of Neglected or Delinquent Children and Youth. (2018). *Innovative implementation of educational technology in juvenile justice settings.* Washington, DC: Author. Retrieved from https://neglected-delinquent.ed.gov/sites/default/files/Ed-Tech-in-JJ-Settings-9-11-18FinalPDF.pdf

Thomas, S. (2016). *Future ready learning: Reimagining the role of technology in education: 2016 National Education Technology Plan.* Washington, DC: U.S. Department of Education, Office of Educational Technology. Retrieved from https://tech.ed.gov/files/2015/12/NETP16.pdf

U.S. Department of Education, & U.S. Department of Justice. (2014). *Guiding principles for providing high-quality education in juvenile justice secure care settings.* Washington, DC: Author. Retrieved from https://www2.ed.gov/policy/gen/guid/correctional-education/guiding-principles.pdf



The National Technical Assistance Center

for the Education of Neglected or Delinquent Children and Youth

American Institutes for Research
1000 Thomas Jefferson Street NW
Washington, DC 20007-3835

For more information, please contact NDTAC at ndtac@air.org or visit our website at https://neglected-delinquent.ed.gov/.

September 2020

Improving educational
programming for youth
who are neglected or delinquent

11124_09/20