

Strategies for Virtual Learning Implementation

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In the following report, Hanover Research examines best practices in planning and implementing virtual learning programs. The report reviews literature on strategies for implementing successful virtual learning programs and profiles four school districts with exemplary programs.

TABLE OF CONTENTS

Executive Summary and Key Findings	3
INTRODUCTION	3
KEY FINDINGS.....	3
Section I: Best Practices in Implementing Virtual Learning Programs	4
VIRTUAL LEARNING MODELS	4
Blended Learning Models	6
PLANNING AND IMPLEMENTATION	7
Selecting a Provider	9
Implementation Timeline	10
STUDENT SUPPORT	15
PROGRAM QUALITY	15
Section II: Case Profiles	17
MIAMI-DADE COUNTY PUBLIC SCHOOLS.....	17
Program Structure	17
Outcomes.....	17
PALISADES SCHOOL DISTRICT	18
Program Structure	18
Outcomes.....	19
DENVER PUBLIC SCHOOLS	19
Program Structure	20
Outcomes.....	20
EVANSVILLE VANDERBURGH SCHOOL CORPORATION.....	21
Program Structure	21
Outcomes.....	22

EXECUTIVE SUMMARY AND KEY FINDINGS

INTRODUCTION

In the following report, Hanover Research identifies best practices for planning and implementing virtual learning programs. The report is divided into two sections:

- **Section I: Best Practices in Implementing Virtual Learning Program** compares virtual learning models and identifies best practices in program implementation.
- **Section II: Case Profiles** provides profiles of districts with exemplary blended and virtual learning programs. The following districts are profiled:
 - Denver Public Schools
 - Evansville Vanderburgh School Corporation
 - Miami-Dade County Public Schools
 - Palisades School District

KEY FINDINGS

- **Research suggests that blended learning models that combine face-to-face and online instruction yield the best student learning outcomes.** Though fully online programs offer many advantages, including flexibility and self-paced instruction, at-risk students may benefit from teacher interaction in a traditional setting.
- **Successful virtual learning programs set clear goals for student learning and provide students and staff with sufficient training and support.** Virtual learning programs should be student-centered and aim to improve student achievement, personalize learning, or provide students with more academic options. Miami-Dade County Public Schools recommends that districts provide comprehensive orientation to help students and staff adapt to a virtual format.
- **Districts interested in launching a comprehensive virtual learning program should allot at least three years for the planning and implementation process.** During the first year, key district stakeholders should participate in strategic planning. Following years should be used to complete activities that focus on developing the program's content, teaching, technology, and operations.
- **To ensure that virtual learning programs are high-quality, administrators should set outcomes-based quality assurance metrics.** For fully online schools, outcome measures should include student proficiency, individual student growth, graduation rates, college and career readiness, closing the achievement gap, and fidelity to students' academic goals. For individual courses, outcome metrics should monitor student proficiency and growth along a trajectory.
- **Districts should take at least three months to solicit stakeholder buy-in.** The director of a virtual learning academy in Palisades School District recommends preparing a proposal for the school board that highlights how the virtual learning program will save money, benefit the community, and boost student achievement.

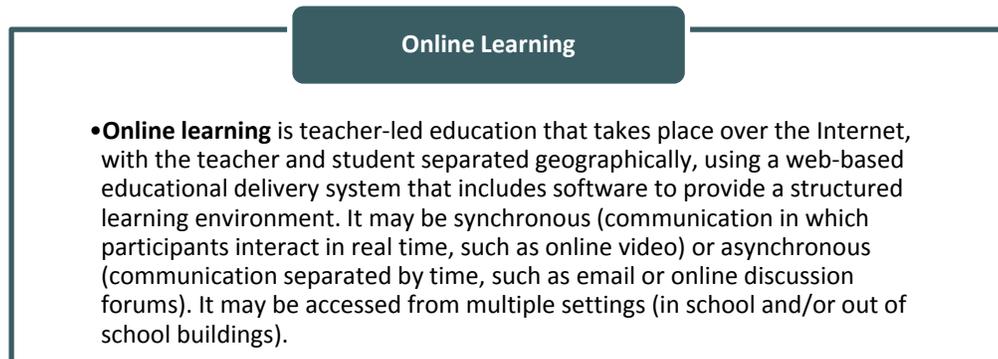
SECTION I: BEST PRACTICES IN IMPLEMENTING VIRTUAL LEARNING PROGRAMS

Virtual learning programs have become increasingly prominent in K-12 education in recent years. According to a report by the International Association for K-12 Online Learning (iNACOL), more than 1.8 million students enrolled in distance education courses in K-12 school districts from 2009-2010, with 74 percent of enrollments in high schools.¹ Online courses offer high school students many benefits, expanding students' exposure to curriculum options and personalizing students' learning experiences.² Districts commonly choose to offer online learning programs to provide opportunities for credit recovery and to offer courses that are not otherwise available in the district.³ In this section, Hanover Research reviews the different virtual learning models and examines strategies for implementing successful virtual learning programs.

VIRTUAL LEARNING MODELS

A range of virtual learning models exist, including fully online learning, blended learning, hybrid learning, e-learning, and cyberschools, though many of the terms do not have commonly understood definitions. A report by Evergreen Education Group titled *Keeping Pace with K-12 Online Learning* provides the following definition for online learning:

Figure 1.1: Definition of Online Learning



Source: Evergreen Education Group⁴

¹"Fast Facts About Online Learning." International Association for K-12 Online Learning, February 2013. p. 1. http://www.inacol.org/cms/wp-content/uploads/2013/04/iNACOL_FastFacts_Feb2013.pdf

²Clark, T. "Online Learning: Pure Potential." ASCD, 65:8, May 2008. <http://www.ascd.org/publications/educational-leadership/may08/vol65/num08/Online-Learning@-Pure-Potential.aspx>

³"Fast Facts About Online Learning." Op. cit., p. 1.

⁴Watson, J. et al., "Keeping Pace with K-12 Online & Blended Learning: An Annual Review of Policy and Practice." Evergreen Education Group. p. 8. http://kpk12.com/cms/wp-content/uploads/EEG_KP2013-lr.pdf

⁴Ibid., p. 58.

Online learning models vary in their levels of comprehensiveness, geographic reach, method of delivery, and type of instruction. Programs may be fully online or face-to-face; supplemental or full-time; may exist between school districts, within a school district, nationally, or internationally; and may be delivered synchronously or asynchronously.⁵ The major virtual learning programs can be classified into five categories: state virtual school, multi-district, single district, consortium, and post-secondary. Figure 1.2 summarizes the characteristics of each type of online learning program.

Figure 1.2: Virtual Learning Models

CATEGORY	ORGANIZATION TYPE	FULL-TIME/ SUPPLEMENTAL	FUNDING SOURCE	GEOGRAPHIC REACH
State virtual school	State education agency	Supplemental	State appropriation, course fees, funding formula	Statewide
Multi-district	Charter or district-run	Full-time	Public education funding formula	Statewide
Single-district	District	Either or both	District funds	Single district
Consortium	Variable	Supplemental	Course fees, consortium member fees	Statewide, national, or global
Post-secondary	University or college	Either or both	Course fees	National

Source: Evergreen Education Group⁶

Evidence suggests that virtual learning programs provide students and schools with many benefits. Online learning allows teachers to personalize lessons and provide engaging content that addresses individual students' needs.⁷ In addition, online learning models allow schools to collect student performance data and tailor instruction specifically to the needs of students. Furthermore, online programs allow students to learn at their own pace and access lessons from any location. Virtual learning models expand access to education, allowing students who may otherwise not have had opportunities to take Advanced Placement courses or obtain other academic materials to prepare them for college and their careers.⁸ An infographic by Dreambox Learning shows that traditional learning models are decreasing, while online learning is growing in K-12 education. Figure 1.3 presents the number of digital learners in the United States in 2009 and 2014 and summarizes the comparative benefits of virtual learning.

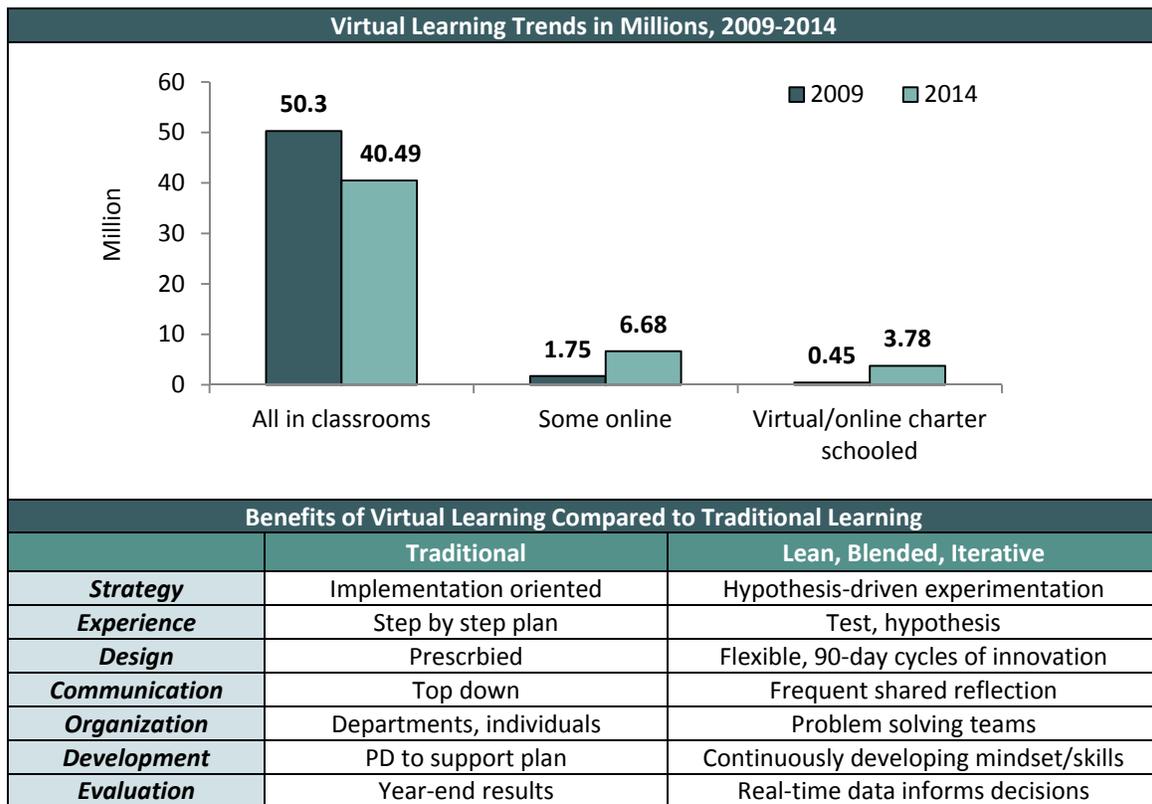
⁵Watson, J., et al. Op. cit., p. 10.

⁶Ibid., p. 11.

⁷Patrick, S., et al. "Measuring Quality from Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools." International Association for K-12 Online Learning. p. 2.
http://www.inacol.org/wp-content/uploads/2012/11/iNACOL_Quality_Metrics.pdf

⁸Ibid., p. 3.

Figure 1.3: Virtual Learning Trends and Benefits



Source: Edudemic⁹

BLENDING LEARNING MODELS

In addition to fully online programs, some educational institutions offer blended learning programs. According to the Christensen Institute, a **blended learning program** is “a formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path, and/or pace.” Blended learning programs may exist within a school or as stand-alone schools that use a blended format and require students to attend class at a physical site.¹⁰ A meta-analysis of literature on virtual learning by Means, et al. found that **blended learning conditions that combined online and face-to-face instruction had a larger academic advantage for students than purely face-to-face instruction.**¹¹ However, even with basic supports in place, some at-risk students may still be more likely to struggle in an online environment than in a traditional learning environment.¹²

⁹“Blended Learning: 10 Trends.” Edudemic. http://www.edudemic.com/wp-content/uploads/2014/05/10-blended-learning-trends_rev2.png

¹⁰Watson, J. et al., Op. cit., p. 9.

¹¹Means, B. et al., “Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.” U.S. Department of Education, September 2010. p. xvi. <https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

¹²“Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade’s First Year.” SRI International, November 2011. p. 2. http://www.sri.com/sites/default/files/brochures/implementing_online_learning_labs.pdf

PLANNING AND IMPLEMENTATION

Studies of online and blended learning schools suggest that programs require careful planning and implementation to be successful.¹³ Administrators from Miami-Dade County Public Schools attested to the importance of strategic planning and implementation after implementing a virtual learning lab program in their schools. According to Miami-Dade administrators, schools and districts should allot at least three months to solicit stakeholder support and develop appropriate policies and guidelines for the program.¹⁴ When planning for an online learning program, administrators should focus on students' needs and consider which types of courses and format can best help students achieve their goals.¹⁵ Program administrators should articulate the educational goals they are trying to achieve. Goals may include personalized learning, improved college readiness, more options for credit recovery, or increased academic challenges for advanced students.¹⁶

Schools and districts should allot at least three months to solicit stakeholder support and develop appropriate policies and guidelines for the program.

When planning a virtual learning program, district leaders should remain transparent with all stakeholders, establish clear communication channels, and provide sufficient time and information for students and parents to make decisions about enrollment.¹⁷ The district must establish clear goals for the program, answering questions such as the following:¹⁸

- What grade levels will be served?
- Will the school offer blended learning, supplemental, full-time, or a mix of all?
- Have administrators identified a high quality program leader?
- How will administrators manage the change process?
- How will the blended program impact teacher and student roles and the use of time?
- What are goals in terms of individualizing instruction for students?
- Will the school operate on a traditional school calendar?
- Will courses be open entry/open exit?

Before implementing a program, the district should set clear goals for student learning and ensure that the program's goals are student-centered.¹⁹ Miami-Dade County Public Schools

¹³Watson, J. et al., Op. cit., p. 44.

¹⁴"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 27.

¹⁵Ibid., p. 3.

¹⁶Watson, J. et al., Op. cit., p. 44.

¹⁷"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 3.

¹⁸Bulleted points adapted from: Watson, J. et al., Op. cit., pp. 48-49.

¹⁹Ibid., p. 49.

recommends that districts take the following five steps to plan and implement a virtual learning program.

Figure 1.4: Steps for Planning a Virtual Learning Program



Source: SRI International²⁰

An article from *District Administration* similarly offers a list of necessary steps to implementing a virtual learning or blended learning program. These recommendations range from the practical, such as anticipating the necessary bandwidth for the program, to more abstract, such as working to gather buy-in and remaining flexible during the implementation process.

²⁰“Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade’s First Year.” Op. cit., pp. 28-32.

- **Consider bandwidth:** Prior to purchasing a blended learning platform, districts must ensure that bandwidth in a school building's infrastructure is strong enough to handle multiple users.
- **Use multiple platforms:** The concept of the "one-stop-shop" as it applies to blended learning is murky because no one program can truly supplant face-to-face instruction and guidance. Different approaches and platforms may work better in some districts than in others.
- **Start small:** Start with a small roll-out so that it eases teachers into this new way of delivering instruction and engaging with students.
- **Leverage the data:** Select teachers who are drawn to data-driven instruction to pilot a blended learning program. This will create a group of in-house specialists who can train other teachers.
- **Stay flexible:** Keep the blended learning program flexible so it can be used in different implementations based on how many modalities the district or school is using for learning.
- **Use collaboration:** Let IT/network experts and curriculum experts collaborate. IT departments are becoming a more strategic voice in school systems that are at the leading edge of technology integration.
- **Get buy-in:** Ease into blended learning, piloting platforms with willing teachers in small doses. The most successful implementations are the ones that aren't forced.²¹

SELECTING A PROVIDER

Selecting a provider can be one of the most challenging aspects of launching a virtual learning program, as the industry is rapidly changing. Providers vary in the products and services they offer and have distinct advantages. Large providers such as K12 Inc. and Connections provide both entire virtual schools and individual courses. Apex, Edmentum, Pearson, and eDynamic Learning offer individual courses and other supplementary services. Providers also vary in the degree of flexibility they offer educators in the choice of technology platforms, ability to edit content, and capacity to integrate with data systems.²² To understand provider options, Watson et al. recommend that administrators consider the following key points and questions:

²¹ Bulleted points taken verbatim from: Fagnani, S. "Rolling out blended learning." *District Administration*. August 2014. <http://www.districtadministration.com/article/rolling-out-blended-learning>

²² Watson, J. et al., Op. cit., p. 46.

Figure 1.5: Key Issues and Questions for Selecting Providers

ISSUES	QUESTIONS TO ASK
1. Understand the differences between providers who focus on blended or online learning, and those that are more closely aligned to classroom-based educational technology.	<ul style="list-style-type: none"> ▪ How does your product/service address a situation where at least some instruction is done at a distance? ▪ How does your product/service allow for individualized instruction for all students?
2. Start by determining your online or blended learning program plan (as described in the following pages), and then issue an RFP based on key parameters of the program.	<ul style="list-style-type: none"> ▪ Can our teachers modify your content to meet our instructional approaches? ▪ Can you supply teachers for courses where we don't have highly qualified teachers available?
3. Determine if you will use your own technology platform that allows for content creation and editing, or if you are seeking content tied to a technology platform.	<ul style="list-style-type: none"> ▪ Is your online content editable? ▪ Can your content be put into a variety of technology platforms?
4. Require an online demonstration from a subset of providers. Good providers don't want to just tell you what they can do, they want to show you as well. Require a demonstration. Require that it be online (not just in slides). Allocate at least 90 minutes for each provider's demonstration, and drive the presentation to cover what you want to see, which may or may not be what the provider wants to show. Include a variety of staff that will be involved in decision-making and/or daily operation of the online and blended learning program.	-
5. Have your review team spend time in the courses and compare notes about what you like and what doesn't work as well, keeping in mind the attributes of the students most likely to be taking the courses.	<ul style="list-style-type: none"> ▪ Can we access your courses as a teacher, and as a student?

Source: Evergreen Education Group²³

Administrators should also consider costs when selecting a provider and launching a virtual learning program. Course providers and online instruction present significant costs in addition to hardware, software, and technology infrastructure. Program facilitator staffing and time spent by district leaders, counselors, and IT staff may also present considerable costs.²⁴

IMPLEMENTATION TIMELINE

According to the 2013 *Keeping Pace with K-12 Online Learning* report by Evergreen Education Group, implementing a comprehensive district blended and online learning program can take up to three years in a district that has limited experience with virtual classrooms. **In order to launch a fully online program or supplemental online classes, the district should complete a full year of strategic planning, followed by two years of activities that focus on content, teaching, technology, and operations.**²⁵ The ultimate goal

²³Ibid., pp. 46-47.

²⁴"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 3.

²⁵Watson, J. et al., Op. cit., p. 62.

of the planning process should be a fully online school with supplemental options for all students at each grade level and blended course options in core course subjects.²⁶ The following figure presents Evergreen Education Group's proposed three-year timeline for launching a blended learning program.

²⁶ibid., p. 65.

Figure 1.6: Timeline for Implementation of Comprehensive Blended Learning Program

FALL	SPRING	SUMMER
Year 1		
<ul style="list-style-type: none"> ▪ Planning ▪ Needs analysis ▪ Readiness assessment ▪ Current status ▪ Strategic planning: key stakeholders, administrators, teachers, parents, students, superintendent, school board, community ▪ Program definition ▪ Instructional Strategies ▪ Identify project leader ▪ School board buy-in ▪ Budget ▪ Assess existing facilities and technology ▪ Identify existing programs, courses, providers, teachers, student enrollments ▪ Identify course gaps ▪ Assess quality and outcomes ▪ Assess teacher preparation ▪ Existing policies and funding ▪ Initial stakeholder outreach ▪ Project leader, instructional team, administrative leaders to iNACOL conference 	<ul style="list-style-type: none"> ▪ Identify courses, content, and platforms shared between full and supplemental programs <ul style="list-style-type: none"> ○ Blended: Identify math content and platform unique to blended ○ Supplemental and full: Identify course gaps ▪ Identify teachers <ul style="list-style-type: none"> ○ Blended: Existing teachers; no change to schedule or contract ○ Supplemental: Existing teachers who will teach some online and some full ○ Full: Teachers are likely to be new and fully online ▪ Select and begin PD for teachers unique to blended or online <ul style="list-style-type: none"> ○ Blended: PD is math-specific as well as covering blended pedagogy ▪ Prepare for school and home access for students ▪ Develop device specs ▪ Develop communications plan and website ▪ Begin outreach to students and parents <ul style="list-style-type: none"> ○ Blended: Explain to families ○ Full: Outreach to non-district families ▪ Counselor training ▪ Create pilot year budget ▪ Update school board 	<ul style="list-style-type: none"> ▪ Configure and prepare courses/content ▪ Continue teacher PD with focus on special education accommodations ▪ Plan for providing off-school Internet access for all students <ul style="list-style-type: none"> ○ Supplemental: Train school-level facilitators ▪ Communicate device specs ▪ Plan for tech support ▪ Continue outreach to students and parents <ul style="list-style-type: none"> ○ Full: Summer push to non-district families ▪ Configure flexible learning spaces ▪ Create PD for building leaders and district administrators

FALL	SPRING	SUMMER
Year 2		
<ul style="list-style-type: none"> ▪ Launch unified supplemental program ▪ Launch fully online high school ▪ Launch blended learning pilot in math across schools ▪ Identify additional courses for each program ▪ Identify additional teachers ▪ Create teacher PLC and mentoring ▪ Establish quality teaching standards in each instructional modality ▪ Plan for enterprise integration of platform and existing SIS <ul style="list-style-type: none"> ○ Blended: Test bandwidth and network configuration ○ Supplemental: Test bandwidth and network configuration again ▪ Provide tech support ▪ Plan for program evaluation 	<ul style="list-style-type: none"> ▪ Assess courses/providers ▪ Continue PD for both new and experienced teachers <ul style="list-style-type: none"> ○ Blended: PD is ELA-specific as well as covering blended learning pedagogy ▪ Identify new local facilitators ▪ Continue outreach using successful student stories ▪ Expand counselor training ▪ Expand learning spaces ▪ Refine budget to plan for scaling ▪ Revisit and update strategic plan ▪ Update school board 	<ul style="list-style-type: none"> ▪ Identify courses/content to develop in-house ▪ Identify data integration and reporting strategy ▪ Continue PD for both new and experienced teachers ▪ Train/mentor local facilitators ▪ Issue first year evaluation report ▪ Expand PD for building leaders and administrators and create PLC
Year 3		
<ul style="list-style-type: none"> ▪ Grow unified supplemental program ▪ Launch fully online middle school and elementary schools ▪ Extend blended learning to ELA courses across schools ▪ Add courses to provide full course catalog <ul style="list-style-type: none"> ○ Blended: Identify content and platform in additional disciplines ▪ Identify teachers to develop courses ▪ Extend teacher PLC and mentoring to new teachers and new disciplines ▪ Blended PD is specific to new disciplines as well as covering blended learning pedagogy ▪ Plan for increasing numbers of users accessing system 	<ul style="list-style-type: none"> ▪ Assess courses/providers ▪ Provide course development PD ▪ Integrate into district budget ▪ Integrate with district strategic plan ▪ Update school board 	<ul style="list-style-type: none"> ▪ Remove ineffective courses ▪ Develop courses/content ▪ First online teacher conference ▪ Issue second year evaluation report ▪ Configure next generation learning spaces

FALL	SPRING	SUMMER
<ul style="list-style-type: none"> ○ Blended: Test bandwidth and network configuration ○ Supplemental: Test bandwidth and network configuration again ▪ Scale for growth of tech support ▪ Continue all elements of program evaluation ▪ Open courses to out-of-district students ▪ Continue outreach using successful student stories ▪ Design next generation learning spaces 		

Source: Evergreen Education Group²⁷

²⁷ibid., pp. 62-65.

STUDENT SUPPORT

Research suggests that certain instructional practices and student support strategies contribute to greater student success within a virtual learning model. For instance, an article in *Educational Leadership* promotes creating a student-centered learning environment in a blended learning classroom and encouraging students to use technology to solve problems, communicate, and collaborate with one another.²⁸ Research from the virtual learning lab program in Miami-Dade shows the value in blended classrooms that allow students to interact with peers.²⁹ Furthermore, a meta-analysis of literature on online and blended learning by the U.S. Department of Education demonstrates the positive impact of tools that promote student reflection and self-monitoring of online learning outcomes. The review suggests that tools that prompt self-assessment had an even greater impact on student outcomes than tools that promote group learning and collaboration.³⁰

Furthermore, adequate student training and technical support can improve student success rates in virtual learning environments. All virtual students should complete a mandatory orientation program to learn the program's expectations, familiarize themselves with the learning interface, and adapt to the online tools. Teachers and facilitators should provide ongoing support and encourage students to pace themselves appropriately and communicate effectively with online instructors. Finally, the district should provide adequate technical support and IT services to solve students' technical, maintenance, and repair issues.³¹

PROGRAM QUALITY

As virtual learning is a nascent industry, models vary widely in quality and effectiveness.³² In an effort to differentiate high-quality, effective virtual programs from low-quality options, iNACOL proposes outcomes-based quality assurance metrics to monitor program performance.³³ Quality assurance outcomes differ for fully online schools and individual online courses. For virtual schools, quality assurance should include the collection of data related to student proficiency, individual student growth, graduation rates, college and career readiness, closing the achievement gap, and fidelity to student academic goals.³⁴ Quality assurance for individual courses should include collection of data related to proficiency and student growth along a trajectory.³⁵ End of course exams alone cannot be an appropriate measure of student outcomes because they measure proficiency, but do not measure student growth. As a result, iNACOL recommends that providers administer pre-

²⁸Tucker, C.R. "The Basics of Blended Instruction." *Educational Leadership*, 70:6, March 2013.
<http://www.ascd.org/publications/educational-leadership/mar13/vol70/num06/The-Basics-of-Blended-Instruction.aspx>

²⁹"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 12

³⁰Means, B. et al., Op. cit., p. 48.

³¹"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 19.

³²Patrick, S., et al., Op. cit., p. 3.

³³Ibid., p. 15.

³⁴Ibid., p. 14.

³⁵Ibid., p. 18.

and post-course exams to measure student learning throughout a single course.³⁶ For fully online schools, iNACOL makes the following recommendations for developing outcomes-based performance measures:

Figure 1.7: Outcomes-based Performance Measures for Online Learning



Source: iNACOL³⁷

³⁶Ibid., p. 20.

³⁷Ibid., pp. 15-17.

SECTION II: CASE PROFILES

In this section, Hanover Research profiles school districts across the country with exemplary virtual learning programs. The districts included in our review have been awarded for their successful program implementation.

MIAMI-DADE COUNTY PUBLIC SCHOOLS

Miami-Dade County Public Schools is a large school district serving nearly 350,000 students in Miami-Dade County, Florida.³⁸ In an effort to address teacher shortage issues and reduce class sizes in core subjects, the district opened several online learning lab sites at schools throughout the district.³⁹ A total of 38 of the district's public high schools and 5,500 students participated in the program during its pilot year from 2010-2011.⁴⁰ In addition, the district offers a fully online educational program through Miami-Dade Online Academy. The school offers students in kindergarten through grade 12 a full-time virtual educational program.⁴¹

PROGRAM STRUCTURE

Miami-Dade partners with Florida Virtual School (FLVS), a fully online state-wide public high school, to provide its courses. Students participate at an online learning site and log in to courses taught by FLVS instructors. Lab facilitators support students at each site and troubleshoot technical difficulties.⁴² Students are able to call, email, or text online instructors if they need help. They may complete core coursework or Advanced Placement courses in virtual labs.⁴³ At the district's full-time online academy, students in kindergarten through grade 12 may complete basic course requirements as well as Honors and Advanced Placement high school coursework. All students are eligible to enroll in the program, including students enrolled in drop-out prevention, academic intervention, and Department of Juvenile Justice programs.⁴⁴

OUTCOMES

The implementation of the virtual learning lab program in Miami-Dade was met with mixed responses from district stakeholders. Some teachers expressed concern with the quality of online instruction, and students noted that completing online courses demands self-

³⁸"Student Enrollment." Miami-Dade County Public Schools, 2014.

http://www.dadeschools.net/StudentEnroll/Calendars/enroll_stats_aor.asp

³⁹Herrera, L. "In Florida, Virtual Classrooms With No Teachers." *The New York Times*, January 17, 2011.

http://www.nytimes.com/2011/01/18/education/18classrooms.html?pagewanted=all&_r=0

⁴⁰"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. v.

⁴¹"Miami-Dade Online Academy." Miami-Dade Online Academy. <http://mdo.dadeschools.net/>

⁴²"Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year." Op. cit., p. 1.

⁴³Herrera, L. Op. cit.

⁴⁴"Miami-Dade County Public Schools Full-Time Virtual Learning Program." Miami-Dade County Public Schools.

http://ferguson.dadeschools.net/Students/Virtual_Learning_Program.pdf

motivation.⁴⁵ Furthermore, online courses place a burden on students that do not have access to a computer or Internet at home. Overall, the implementation of online labs effectively reduced class sizes, but should be carefully considered before it is mandated for all students in a district.⁴⁶ According to a review of the Miami-Dade program by SRI International, to successfully implement an online learning lab program, districts should provide orientation programs, ongoing support through lab facilitators, opportunities for interaction, access to Internet-enabled computers outside of the scheduled lab time, and sufficient technical support to allow all students to complete assignments on time.⁴⁷

PALISADES SCHOOL DISTRICT

Palisades School District serves 1,800 students in the eastern Pennsylvania region.⁴⁸ The district launched a Palisades Cyber Academy for students entering grades 11 and 12 in the 2011-2012 school year. The Cyber Academy aimed to provide flexible scheduling options to students and expand access to the district's resources, programs, and services.⁴⁹ A focus on fiscal responsibility and global connections, demand for e-learning options, and desire to impact student achievement influenced the district's decision to launch the program.⁵⁰

PROGRAM STRUCTURE

The online and hybrid Palisades Cyber Academy offers full-time and part-time hybrid learning opportunities, allowing students to supplement a traditional high school schedule or complete coursework fully online.⁵¹ The district partners with Blended Schools and uses the Blackboard platform to provide its virtual curriculum. In its first year, the Cyber Academy served 25 full-time students and 100 traditional students who enrolled in an online course. Rich Kiker, Director of Online Learning, estimates the program's total start-up costs to be \$35,000.⁵² The curriculum includes over 100 course options for high school, middle school, and elementary school students, as well as credit recovery options through the Palisades High School Virtual Credit Recovery Center.⁵³

Rather than relying on outsourced instruction, local high school teachers instruct core courses at the Cyber Academy, giving students the opportunity to interact with their

⁴⁵Herrera, L. Op. cit.

⁴⁶Isensee, L. "Virtual Schools Expand Students' Network." WUSF, August 22, 2011.

http://www.wusf.usf.edu/news/2011/08/22/virtual_schools_expand_students_network

⁴⁷"Study of Miami-Dade's Virtual Learning Lab Reveals Key Success Factors for 'Blended Learning' Programs." SRI International, December 15, 2011. <http://www.sri.com/newsroom/press-releases/study-miami-dade-s-virtual-learning-lab-reveals-key-success-factors-blended->

⁴⁸"Search for Public School Districts." National Center for Education Statistics.

http://nces.ed.gov/ccd/districtsearch/district_detail.asp?ID2=4218330&details=1

⁴⁹"Palisades Cyber Academy." Palisades School District.

http://www.palisadessd.org/cms/lib03/PA01000106/centricity/domain/85/cyber_flyer.pdf

⁵⁰Marcinek, A. "How One District Implemented a Hybrid Learning Program." Edutopia, April 13, 2014.

<http://www.edutopia.org/blog/online-hybrid-learning-andrew-marcinek>

⁵¹"Enrollment." Palisades Cyber Academy. <https://sites.google.com/site/palisadescyberacademy/enrollment>

⁵²Marcinek, A. Op. cit.

⁵³"Course Offerings." Palisades Cyber Academy. <https://sites.google.com/site/palisadescyberacademy/course-offerings>

teacher in person. Cyber Academy instructors teach traditional classes for two periods and interact with online students during the third period. During the summer before the program launched, Cyber Academy teachers attended six days of professional development training sessions. Professional development training taught teachers how to design a course, deliver courses through a learning management system, and provide quality content. The Academy's Director of Online Learning trained teachers and helped them feel comfortable with online teaching.⁵⁴

OUTCOMES

Overall, the Cyber Academy has demonstrated positive outcomes. In addition to increasing college readiness, improving digital literacy, and improving the technical capacity of the community, the program has helped reduce district spending on virtual learning.⁵⁵ The district previously paid nearly \$700,000 to cyber charter schools, but has saved at least \$275,000 since launching the Cyber Academy.⁵⁶

According to Kiker, the district was transparent with the community throughout the implementation process and easily solicited stakeholder buy-in. Kiker recommends that districts interested in implementing a virtual program prepare a proposal for the school board that highlights how the program can save money, benefit the community, and positively impact student achievement. After receiving the School Board's support, districts should begin the action planning process and identify a proactive program leader who is both able to build relationships and apply his or her technical expertise.⁵⁷ As a result of the program's exemplary performance, the district was awarded the Blended Schools Network's 2013 Jubilee Award for excellence in blended and online learning.⁵⁸

DENVER PUBLIC SCHOOLS

Denver Public Schools (DPS) is a large district serving nearly 88,000 students in the Denver, Colorado area.⁵⁹ In 2012, the district received a \$2.1 million grant from the Janus Foundation to implement blended learning programs in its schools. With the Janus Foundation funds, DPS has launched blended learning labs in 11 elementary, middle, and high schools.⁶⁰ Over 3,400 students in grades 7 through 12 participate in DPS' blended learning programs. The programs aim to provide students with educational opportunities tailored to their individual needs, increase the on-time graduation rate, and reduce the dropout rate. The district offers the following educational options through blended learning: Advanced Placement, credit recovery, original credit for transfer students, intervention

⁵⁴Roscorla, T. "Great Online Teachers Have to be 'Radical Collaborators.'" Center for Digital Education, October 10, 2011. <http://www.centerdigitaled.com/training/Great-Online-Teachers-Have-to-Be-Radical-Collaborators.html>

⁵⁵Marcinek, A. Op. cit.

⁵⁶Roscorla, T. Op. cit.

⁵⁷Marcinek, A. Op. cit.

⁵⁸"Jubilee Award 2013." Palisades School District. <https://sites.google.com/site/palisadescyberacademy/jubilee-award---2013>

⁵⁹"DPS Mission and Vision." Denver Public Schools. <http://communications.dpsk12.org/aboutdps.html>

⁶⁰"Janus Blended Learning Lab Sites." Denver Public Schools, 2014. <http://blendedlearning.dpsk12.org/janus-blended-learning-lab-sites/>

through unit recovery, AP exam preparation, GED preparation, and middle school intervention.⁶¹

PROGRAM STRUCTURE

At its 11 blended learning sites, DPS incorporates an appropriate classroom environment, a curriculum with premier online learning systems and instructional tools, physical technology and technical support, and appropriate training to help teachers successfully operate in the environment.⁶² The DPS blended classroom model is guided by the non-profit organization Generation Schools Network's model, which aims to expand learning time for each student without increasing teacher work time, reduce class sizes, reduce teacher work load, increase schools' capacity to collect and analyze data, and leverage emerging technologies in the classroom. At each blended classroom site, students work independently with adaptive software, work in collaborative small groups, or work with teachers one-on-one or in small-group instruction. Teachers collect and monitor student data to make decisions about students' instructional needs, such as determining the amount of individualized instruction each student requires.⁶³

OUTCOMES

Since its inception, the blended learning program at Denver Public Schools has had a measurable impact on student outcomes.⁶⁴ During its first year, the blended learning programs have resulted in:⁶⁵

- The creation of a replicable and sustainable model for introducing blended learning into DPS classrooms;
- Improved learning outcomes for participating students through individualized learning opportunities;
- Freeing up teachers to work one-on-one with students at the point of need or opportunity; and
- Increased demand within the district for education innovation.

Furthermore, data from the Colorado Department of Education show a decline in the dropout rate to 5.0 percent, a 2.5 percent improvement in the graduation rate, and a 3.5 percent improvement in the five-year graduation rate.⁶⁶ In addition, students at West

⁶¹"2014 Apex Learning Award of Excellence Recipients." Apex Learning, 2014. <http://www.apexlearning.com/blended-learning/program-success/award-of-excellence-recipients>

⁶²"Janus Blended Learning Lab Sites." Op. cit.

⁶³Schaffhauser, D. Op. cit. "Denver Schools to Accelerate Blended Learning with \$2.3 Million Corporate Grant." THE Journal, October 10, 2012. <http://thejournal.com/articles/2012/10/10/denver-schools-to-accelerate-blended-learning-with-2.3-million-corporate-grant.aspx>

⁶⁴"First-Year Results of Janus Blended Learning Grant Show Promising Improvements." Janus International Holding LLC, 2014. <https://www.janus.com/community/blended-learning>

⁶⁵Bulleted points adapted from: Ibid.

⁶⁶"2014 Apex Learning Award of Excellence Recipients." Op. cit.

Generation Academy (WGA) and Grant Beacon Middle School demonstrated improvements in academic achievement. WGA students improved two grade levels in math and one grade level in literacy on STAR Reading and Math formative assessments. Results from Grant Beacon Middle School indicate improvements in student scores in advanced reading and math, and decreases in unsatisfactory scores in reading and math on the Transitional Colorado Assessment Program (TCAP).⁶⁷ The principal at Grant Beacon attributes the achievement gains to the new blended learning model.⁶⁸ The district received a 2014 Apex Learning Award of Excellence for its exemplary programming.⁶⁹

Teachers have also responded favorably to the introduction of blended learning in DPS. Jeff Kurtz, a teacher at Grant Beacon Academy, expressed satisfaction with the blended learning technology's capacity to track students individually and instantly, rather than waiting to grade assignments. Kurtz also noted that blended learning has given him the tools to individualize instruction and allows students to learn at their own pace. According to Kurtz, "it's truly changed how I'm teaching."⁷⁰

EVANSVILLE VANDERBURGH SCHOOL CORPORATION

Evansville Vanderburgh School Corporation (EVSC) is a large district that includes 39 schools in southwestern Indiana. The district offers five specialized schools, including New Tech Institute, Early College High School, Virtual Academy, STEM Academy, and Academy for Innovative Studies.⁷¹ EVSC launched a Virtual Academy to increase student achievement and engagement and provide students with options beyond the traditional classroom.⁷²

PROGRAM STRUCTURE

EVSC's Virtual Academy offers a flexible curriculum for high school students and a curriculum for students in kindergarten through grade 8. Students enrolled in the EVSC High School Virtual Academy have the opportunity to earn credits for credit recovery or credit advancement in English, social studies, science, math, Advanced Placement courses, and courses approved by the National Collegiate Athletic Association.⁷³ The school partners with Apex Learning to deliver a digital curriculum that meets core subject requirements. The curriculum offers multiple pathways to meet students' various learning needs.⁷⁴ The standards-based curriculum is designed to provide students with active learning

⁶⁷"First-Year Results of Janus Blended Learning Grant Show Promising Improvements." Op. cit.

⁶⁸"Blended Learning." Denver Public Schools Foundation. <http://dpsfoundation.org/what-we-do/innovation/blended-learning/>

⁶⁹"2014 Apex Learning Award of Excellence Recipients." Op. cit.

⁷⁰Ibid.

⁷¹"About." EVSC. <http://www.evscschools.com/about>

⁷²"Proven to Increase Learning Outcomes: Results of a Third Party Study on the Impact of Digital Curriculum." Apex Learning, January 2014. p. 2. http://www.apexlearning.com/documents/Efficacy_Study_EVSC.pdf

⁷³"What is Virtual Academy?" Evansville Vanderburgh School Corporation. http://www.edlinesites.net/pages/Virtual_Academy/About_Us/What_is_Virtual_Academy_

⁷⁴"Overview." Evansville Vanderburgh School Corporation. http://www.edlinesites.net/pages/Virtual_Academy/Departments___Programs/High_School_Curriculum/Overvie
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experiences, multimedia tutorials, and interactive exercises that address different learning styles.⁷⁵ In addition to the Virtual School, the school system's high schools offer in-school online classes—similar to virtual learning labs—that allow students to receive support from a classroom teacher while working independently through the curriculum.⁷⁶ The Virtual Academy serves 150 students in grades 7 through 12.⁷⁷

OUTCOMES

Since introducing the Virtual Academy, EVSC has seen a 3 percent increase in graduation rates.⁷⁸ A study of the program found that students who completed the virtual learning program achieved similar academic gains on the Indiana State Test of Educational Progress as regular students. Results indicated that students who completed online courses for credit recovery achieved at the same level as their peers in a traditional classroom, and that students' ability to work at their own pace, engage in active learning, and receive targeted support in the virtual learning environment allowed them to master a rigorous curriculum.⁷⁹ EVSC was awarded a 2014 Apex Learning Award of Excellence for its excellent program.

⁷⁵"Instructional Content." Evansville Vanderburgh School Corporation.
http://www.edlinesites.net/pages/Virtual_Academy/Departments___Programs/High_School_Curriculum/Instructional_Content

⁷⁶"Proven to Increase Learning Outcomes: Results of a Third Party Study on the Impact of Digital Curriculum." Op. cit., p. 2.

⁷⁷"2014 Apex Learning Award of Excellence Recipients." Op. cit.

⁷⁸Ibid.

⁷⁹"Proven to Increase Learning Outcomes: Results of a Third Party Study on the Impact of Digital Curriculum." Op. cit., p. 5.

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1700 K Street, NW, 8th Floor
Washington, DC 20006

P 202.559.0500 F 866.808.6585
www.hanoverresearch.com