LIGHTING THE PATH

Village Green Virtual’s Efforts in Educational Research and Dissemination

One school’s track record of embracing its membership in the charter movement’s vanguard, defining a new pedagogy and spreading the word about the future of personalized and high tech learning
# Table of Contents

I  Personalization in Rhode Island and EduvateRI.org  1

II  Testimonials and Kind Words from our Extended Family of Visitors  2

III  VGV Excerpted from the Press  8

IV  Innovations and Initiatives since 2013  10

V  Publications about our story and model  13

VI  Branding, Outreach and the “One Hundred and Eighty Day Open House”  16
I

The Image of Perfect Partners: VGV and State-wide Efforts around Personalization

In the late winter of 2017 the RI Office of Innovation published a seminal report entitled “Personalized Learning in Action.” In the report, EduvateRI.org positioned personalized learning as an achievable state-wide goal. Village Green Virtual is proud to have adopted the mantra of “individualized learning” as far back as 2006 with the release of the original VGV plan. The text shown below is a verbatim version of the VGV Case Study which appears on the EduvateRI.org website next to and companion with the main white paper. VGV is proud to have worked with the team at EduvateRI.org and the Governor’s Office of Innovation to enable site visits to VGV as well as numerous rounds of editing and drafting of the case study.

PERSONALIZED LEARNING IN ACTION

Village Green High School, Statewide School
As published by EduvateRI.org, Case Studies on Personalized Learning (Culatta & Fairchild, 2017)

Village Green Virtual Charter School in Providence challenges any observer’s concept of a “traditional” learning environment. Teachers don’t have permanent classrooms and there are vast banks of computers setup in personalized learning stations. Students only follow a set pace for 9th and 10th grade ELA and Math, the rest of the courses they can move through learning objectives at their own pace, as they master them. This gives the students flexibility to reinforce missing skills or go back and review an objective that they did not master the first time. Students know that they need to master all the content in the course to pass and must build the study skills to keep themselves on track to graduate. In 9th and 10th grade ELA and math courses, teachers control the pace of instruction as students develop a familiarity with independent online learning.

Additionally, students take introductory courses like Digital Citizenship to both practice the use of the software and to develop initial skills they will need to exercise greater ownership over their learning. The long-term goal is to increase student independence over time. In the 11th and 12th grades, students have increased power to self-pace and monitor their own learning.

District Superintendent Dr. Robert Pilkington believes implementing a personalized learning management tool was an important initial design feature for the school. The tool allows teachers to assign students courses based on interest and have constant data to inform their instruction. It also frees up teachers to provide incredibly targeted support to students as they move through material. Teachers rotate through the student workspace to provide assistance when needed when students work independently online. Teachers also pull students out for workshops on skills on which they need more help or enrichment.

There is no set schedule, instead time use is determined by student choice and student needs. Even the start and end time of school has less significance as students have access to classes on the internet after school hours. While the school curriculum is accessible to students at any time virtually, students at VGV also have active, in-person interactions with teachers and other students, including extra-curricular activities and typical high school social events.
So far, this personalized approach has some anecdotal promise: Students in the inaugural Village Green graduating class gained admission to some of the most prestigious colleges in the country. Additionally, the release of the 2016 PARCC results show strong student achievement especially in ELA and writing.

**Focus elements of personalized learning:**
- Flexible learning environment
- Competency-based progression
- Technology-enabled

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**Testimonials and Kind Words from our Extended Family of Friends and Visitors**

*Over the years many thought leaders and educators from both in and outside of Rhode Island have looked towards VGV for guidance and advice on blended learning and virtual curriculum roll out. Some of the kind words and testimonials from those who have studied and visited us have been consolidated into one chronologically easy to read and digest listing. Many of these quotes can also be found on vgonline.org in the articles and research web page.*

**George Caroulo, Chairman of the Rhode Island Board of Regents**

*Hearing for the preliminary approval of the Village Green Virtual Charter School*

*Rhode Island Department of Elementary and Secondary Education*

*November 15, 2012*

“This is the only one I’ve seen in my short time here that actually is an experiment at this advanced date for charter school existence. So, I personally think that this holds to the very core of why we have charter schools. I do understand that there is a possibility that some students that attend this school may fail miserably because they may not execute well or this may not be a good model for someone who wins that lottery and decides to go there. But this is the kind of innovation that I applaud the Department for bringing before us.”

**Dr. Deborah Gist, Commissioner**

“This Technology can never take the place of great teachers. It is a tool for our great teachers to use. Even at Village Green Charter School, a virtual charter high school that is using technology perhaps to the greatest extent in our state, they understand that they need great teachers.”
Richard Culatta, Former Director of the Office of Technology, US DoE

“This is a school that does everything right.”

Richard Culatta, Director of the Office of Technology, US DoE.

“One of the key pieces is how empowered the students are,” he said after touring the downtown Providence charter school. “Used correctly,” he said, “technology can amplify a student’s ability to control his or her educational environment.”

Tom Vander Ark, Getting Smart Blog post, May, 2014

“Village Green Virtual is a blended learning model for 9th and 10th graders, with the intention of expanding to include grades 11 and 12. The school is renovating a historical building in Providence. Students use desktop computers in two Learning Centers, meet in several conference-style classrooms and conduct projects in a Design Space. Each student knows the percent of the curriculum they should be through, where they are in terms of percent completion and know what their proficiency levels are. They’ve changed the dynamic between kids and adults and changed the way students see who’s responsible for their learning.”

Dr. Deborah A. Gist, former Chief State School Officer for RI

“I’ve visited Village Green several times, and I think the best thing about it is the level of personalization,” Gist said. “Each student’s needs are being met. If they need more time, they can get it. If they have an aptitude for a topic, they can go faster. Students have the ability to control their learning and organize their time, just like we do as adults.”

Tom Vander Ark in Getting Smart, March 9, 2015

When commenting on his Highlander Institute tour of RI’s blended learning schools he quipped, “Other than Village Green which is a maturing school-wide model, the others represent a couple classrooms in rather traditional schools.” When commenting specifically on VGV he said, “Our last stop on the Rhode Island blended tour was Village Green Virtual, a flex high school in a downtown Providence office building. Founder Robert Pilkington is a long-time Rhode Island charter school leader. Students spend about 60% of their time in personalized learning on Edgenuity and 40% in teacher led workshops. The students we talked to appreciate the no nonsense work environment and some schedule flexibility. A few will graduate early from the competency-based school but most come to Village Green academically behind and find the college prep curriculum challenging to complete in four years.”

Deborah Rayow, Edgenuity’s Vice President for Core Curriculum and Credit Recovery.

“The feedback from Village Green has challenged us; they are very data-driven,” she said, “We are working right now to customize our lessons to fit how much time they want students to be learning online, and spending with teachers offline.”

When discussing small future ready schools which use flex models he said, “Schools that were pioneers with flex blends include Carpe Diem (AZ & OH), Rocky Mount NC, and Village Green Virtual, Providence, RI.”

Jesse DeLauder of the Brown University UEP Master’s program and with the Providence Student Union and/or Young Voices

“Thank you for the tour of Village Green yesterday. Lauren, Mateus and myself were surprised and impressed by how comfortable and social the school felt, while being highly individualized and rigorous at the same time. We are interested in coming back for a second visit. We shared our experience with our fellow UEP students in class last night, so you may be getting more requests for tours soon (and one job-seeker)! And, thanks for the swag!”

Dawn Parker, Principal of the Crim Open Campus High School in Atlanta, Georgia

For the past year and a half, Alonzo A. Crim Open Campus HS has been fortunate to receive professional learning from Virtual Green Academy on how to develop and implement a school-wide Blended Learning Model. Their deep level of hands on experience has been the foundation for providing whole group, small group and one on one training for my teachers and administrative team. This job embedded, ongoing experience has been simply outstanding. Their intimate approach to facilitating and growing our depth of knowledge would have never been provided without their assistance. We are truly thankful for their support and look forward to greater success due to experiences that they have provided us.”

Kathryn Marks, Dir. of Alternative Education, Cranston Public Schools, Dr. Michael Farmer, Principal of the Mt. Everett School in South Berkshire, MA, and Bob Hicks, former Supt. of South Kingstown, and Block Island School Dept.

Kathryn Marks said, “As the new director of CPS alternative education program, I visited VGV for information and insight into the brave new world of online education. I was impressed not only by the depth of knowledge the team had about the technical and curricular aspects of their online program, but the generous and collegial spirit with which they shared their experiences. Also obvious was the genuine curiosity and enthusiasm displayed about their students’ learning through this new-fashioned educational approach.”

Dr. Farmer said, “Seeing Village Green helped greatly in our journey towards blended learning and increased personalization of each student’s education experience. Their thoughtful use of data to make key decisions, and their focus on continuous improvement - particularly in the application of technology, is a model worthy of emulation.”

Bob Hicks, a long-time RI Superintendent said, “I am impressed by the thought that has gone into planning the Village Green School and creating the environment for students. I think we at Block Island Schools have learned quite a bit and have much to mull over and figure out how to apply this model to the BIS.”

Dr. Deborah A. Gist

Rob Pilkington is, “One of the best innovators and implementers I’ve met,” and, “Rob Pilkington is a visionary who delivers.”
Andrea Russo, Teals K12 RI Governor’s Office of Innovation

“It was wonderful to see the unique learning environment created at Village Green Virtual School. It embodies the future of education by providing a blend of brick and mortar with online education. Students can engage in curriculum at their own pace, while still collaborating with classmates and being supported by classroom teachers.”

Jessie Butash, Cumberland Public Schools and FUSE Fellow

“While the focus of our visit to VGCS was to learn more about the structures put into place for online learning, our team’s take away revolved around the importance of human relationships. The learning community established at Village Green and the importance that student ownership of their learning plays rang loud and clear.”

Joseph B. Goho, Principal, North Providence High School

“When I visited VGSCS with a school and district team, I was so thoroughly impressed with the level of engagement in each classroom, well as the overall rigorous and personalized school climate and culture. We learned that the power of technology to engage students and help them develop 21st century skills offers unlimited possibilities. After visiting the school, the feedback and lessons learned served as the impetus to help us develop a blended learning/flipped classroom pilot program in ELA and math. The pilot was tremendously successful with teachers reporting that the quality of work produced by students far surpassed anything they had seen previously. As a result, the program has been expanded into the other core areas of social studies, science, and foreign languages. We are excited about the impact the blended learning approach has had on our educational program, and we owe a great deal of thanks to VGCS.”

Paula Shannon and LeAnne Pepper, Tulsa Public Schools

“Village Green Virtual has really taken the opportunity to think outside the box about how they educate today’s youth. Students are given the best of many worlds in that they have opportunities to both accelerate their learning and completion of high school requirements through digital courses, but they still have the supports of on-site teachers to delve more deeply into specific projects and topics centered around the most important skills they need to succeed in the real world. Upon having the opportunity to talk with and question students, it really came to life just how well this school experience matched not only their educational needs, but their wants as well.”

Dawn Parker, Principal, Alonzo A. Crim Open Campus High School, Atlanta, Georgia

“Superintendent and Founder Dr. Robert Pilkington believes implementing a personalized learning platform was an important step for the school. The platform allows teachers to assign students courses based on interest and have constant data to inform their instruction. It also frees up teachers to provide incredibly targeted support to students as they move through material. Teachers rotate through the student workspace to provide assistance when needed when students work independently online. Teachers also pull students out for workshops on skills on which they need more help or enrichment. There is no set schedule, instead time use is determined by student choice and student needs. Even the start and end time of school has less significance as students have access to classes on the internet after school hours. So far, this personalized approach has some anecdotal promise: students in the inaugural Village Green graduating class gained admission to some of the most prestigious colleges in the country. Students can even earn the credits to graduate in three years, but almost all choose to stay for a fourth year, totally customized to their interests and continued enrichment. During the 2015/2016 school year VGVS once again graciously opened their doors to allow Alonzo A. Crim Open Campus High School the opportunity to learn first-hand from their experiences as a blended
learning environment. Teachers, admin, and staff provided great insight into the pros and cons of being new to this model. Their insight and professionalism allowed my team to transition to a blended learning model with confidence and less anxiety. Without VGV my team would have entered this process without effective guidance and leadership. We are grateful to this partnership and are forever indebted to their willingness to be open and transparent. Thank you VGV!!!”

Kerry Tuttlebee, Founder and Principal of Evolutions High School, PPSD

“As one of the developers of the two Providence Carnegie high schools (Evolutions) we learned so much on our visit to VGV! Here are a few nuggets of our biggest take aways: One, VGV strikes the balance between personalized pacing and social interaction in learning is this is critical. Two, for HS students who enter 9th grade below grade level, teachers need specific data about students’ strengths and weaknesses at their fingertips in order to quickly customize instruction in specific skills and accelerate their learning. Three, we need to invest in building strong relationships with our online vendors and select companies who truly want your feedback on their products and will make improvements based on that feedback. Four, no computer program can replace the benefit of high quality face to face instruction. Technology allows secondary teachers to maximize face to face instruction by both zeroing in on individual students’ needs and engaging students independently to allow teachers to target instruction.”

Toby Barg, Director of Curriculum and Design YDN--
A Division of Ohr Reuven Jewish Day School Suffern, NY 10901

“I can’t thank you enough for your time and generosity. We learned so much from our short time at Village Green and spent time on our long trip home discussing your model and what we can learn from it. It is evident that you—clearly a passionate educator and innovator—have created a school culture that supports personalized learning but also school spirit and respect peer to peer and teacher to peer. I would like to schedule a longer visit for more teachers from my school in the coming months. At that time, I hope I can get the opportunity to spend more time observing the learning in action and asking some practical questions of you and Dr. Butler who is clearly an educator of distinction.”

Joe Rotz, Cranston Public Schools

“Dr. Pilkington and his staff were generous enough to have a number of administrators from Cranston visit Village Green Virtual. He and his teachers’ experiences with online learning (and insights into those experiences) have helped inform and validate our own work as we expand our use of credit recovery and blended learning. Their collegiality was impressive and appreciated.”

Phil Capaldi, Grade 3 Teacher and Highlander Fuse Fellow

“During my visit to VGV I was impressed with the physical plant, and the comfort level of the staff and students entering the space. Its non-traditional layout made me immediately think, “I would love to learn here. In addition, the individual student spaces really impressed me.”
Michael Dunican, Academic Dean, Roosevelt International Academy

“What struck me about VGV was how easily students seemed to transition from drivers of their own learning in a digital domain to active participants in a traditional teacher-led classroom. The VGV model has successfully created a blended learning environment that seems to promote personalized instructional support. Teachers must not only be masters of content, but also masters of students. During my tour of VGV, I witnessed teachers working side by side with students at their work cubicles and tailoring lessons to meet student’s needs in the classrooms.”

Corey Groff, Supervisor of Curriculum, Instruction, and Assessment, East Pennsboro Area School District, Pennsylvania.

“Hi Rob, I just had a debriefing with the team this morning. They were impressed with the Roto-flex model and are trying to get their heads around how we might be able to do something similar in our context. They enjoyed the opportunity to talk with you and your students and believe the level of personalization that VGCS offers is probably the best we’ve seen. It was also good for them to see just how much customization is necessary to make the Edgenuity program effective. I can’t thank you enough for opening your doors to our team. I have a feeling I may be reaching out to you in the near future to get some more of our teachers up to see what you guys are doing.”

David Williams, Principal, Shannon High School, Birdville ISD, Texas

“Good afternoon Dr. Pilkington, Thank you for your email. Suffice it to say, I have devoured your book. I am in awe of all you and your team have accomplished. Our three traditional high school campuses began this year with all English 1 courses, using the Rotation model. My building, Shannon High School, is our district’s 9-12 alternative (not disciplinary) campus. We have a 100% at-risk campus, serving students who are 17, 18, 19, and some 20 year old students who have freshmen/sophomore credits and many life challenges. Our grant writing team selected the Flex model for us to implement next year. Suffice it to say, we are sweating next year’s implementation. Everything that we discussed on the phone, plus what I’ve read in your book seems to be critical information for me to successfully bring your model to Shannon HS with some semblance of the Blended Flex model to our students. I am so hopeful to have the opportunity to meet with you and walk your campus, visiting with your staff and students.”

Laura Jackson, Highlander Institute

“Visiting the Village Green Charter School has helped the teachers at the RI Training School develop a vision for what a high-quality blended learning environment can look like. They’ve been able to observe rich teacher-student interactions in workshops and hear from students who have experienced success with this model. The administration has been incredibly generous with their time and transparent about lessons learned along the way.”

Dr. Matthew J. Conway, Jr., Superintendent of Schools, Derby Public Schools, Derby, CT

Thank you again for the opportunity to get a very informative tour and observation of your school. Your honest and candid communication of the startup, roll out, trials, tribulations and wins, provided us with a great spring board to further our conversations that will ultimately inform and guide our next steps as we look to transform our teaching to better meet the learning needs of our students. We greatly appreciated how open you and your staff were to allow us to freely move through your school, interact with staff and students and observe and dialog about not only the success, but also those strategies and initial decisions that did not necessarily result in the intended outcome. We also appreciate the open invitation to return, providing additional stakeholders an opportunity to share in our experience, which will result in critical support as we move forward.
Some of what has been said about VGV in the press …

PR Newswire, November, 2013

“I am incredibly proud of what we were able to accomplish at The Village Green School,” says Todd Knapp, Envision’s CEO. “With this project, we’ve helped to build something wonderful for our state by creating a platform that will give RI students a competitive edge.”

Teradici Case Study of Village Green, quotes by Todd Knapp

Teradici Case Study on VGV “The entire Village Green VDI deployment is very efficiently managed remotely.” Support costs per student are predictable; eliminating surprises is a big plus for any school district. Hardware accelerators are delivering excellent performance from our site and the management console has been so effective that we’ve eliminated other tools. The stats we need are all in one place. In combination with reliable, stable Dell Wyse zero clients, we’re able to give the school a contract covering everything on a fixed-price basis for ongoing IT support and maintenance.”

PR Newswire, November, 2013

“What Village Green has helped to architect at the school from an infrastructure standpoint, including the deployment of virtual desktops for all students and the wireless connectivity throughout the school, is a big leap forward from what we’ve seen at other schools,” adds Jeff Wilhlem, Envision’s CTO. “I certainly expect more schools to follow Village Green’s lead and learn how they may be able to best use technology like this in their own environments.”

Tech-Collective, Winter, 2013

“The Village Green Virtual Public Charter School is really a blueprint for how technology can be most effectively used in our public schools.”

Keeping Pace with K12 Digital Learning, April, 2013, KPStaff, First Blended Charter School Set to Open in Rhode Island

“One of the missions of Village Green is to use the students’ time as productively and creatively as possible. The goal is to give students a more realistic idea of managing time in a career-based setting. For instance, if it takes 1.5 hours for a student to get through an English lesson and 30 minutes for science, then that time will be used as needed instead of splitting it evenly. This allows each student to take the time he or she needs to truly understand each lesson, instead of being controlled by the clock or the pace of a full class. Village Green estimates that most students will use 40% of their time working with the teachers, and the other 60% will be online or in small groups. A key question that has begun to recently emerge is, “What is the best school design for a blended learning format?” Many programs give their students access to a computer or have BYOD policies, but continue with a traditional classroom and school layout. Village Green sees an opportunity to embrace the blended learning model throughout the school, down to the building design. The school has purchased and is renovating a historical building in Providence. The layout consists of 136 workstations, creating a 1:1 ratio of computers for the 136 students they expect to attend in SY 2013-14. There are two large Learning Centers made up of pods of 6-8 stations with about 65 stations in each center. There are also several conference-style classrooms with space for 10 students that are available for more traditional teaching methods. With this unique building design Village Green is transforming the teaching style, and the entire educational experience for the students.”
Jennifer Jordan in the Hechinger Report, March 2015

Village Green Virtual looks and feels nothing like other high schools in Rhode Island. Village Green Virtual looks and feels nothing like other high schools in Rhode Island. “Everything about this school, from the physical plant to the technology we purchased to how we implement faculty — everything is committed to the blended learning model,” said Pilkington. “This isn’t a traditional high school that’s been retrofitted. We designed this to be an adult work environment for kids.”

US News and World Report, April 2015

Village Green is at the forefront of Rhode Island’s bid to expand “blended learning,” a combination of online courses with teacher-led classroom instruction. The tiny state has set out to be the first in the nation to integrate computer-based education into all of its 296 public schools.

Progress, ed.gov, RI School Makes Learning Personal for Students, November, 2015

“Village Green is the first school of its kind in Rhode Island. With support from the Rhode Island Department of Education, the school has served as a learning laboratory for educators across the State interested in replicating its blend of online courses and teacher-led instruction. “We need to identify and support early innovators and learn as much as we can so that later adopters can have a roadmap to guide them,” said Holly Walsh, who oversees Rhode Island’s Instructional Technology and E-Learning work. The State believes technology can have a transformative impact on educational outcomes and has launched an ambitious effort to become the first in the nation to adopt blended learning statewide. “Digital learning in all of its forms provides unlimited educational resources for every classroom and allows our schools to design flexible instructional schedules and enables students and teachers to work closely together at a pace that is right for each student,” said Deborah Gist, former Rhode Island Commissioner of Education.”

T.H.E. Journal: 13 Keys to Successful Blended Learning, Greg Thompson, September 2015

“Blending from the Beginning: Relatively new charter schools have the luxury of starting with the primary goal of establishing a cogent blended learning curriculum. The Village Green Virtual Charter School in Providence, RI, launched in September 2013 with a three-pronged approach. “Number one is maximizing technology in courseware,” said Robert Pilkington, the superintendent at Village Green Virtual. “Number two is maximizing teacher efficacy in the face-to-face role, and three is providing supreme equity in access for all kids with a rigorous, high-quality curriculum.” https://thejournal.com/articles/2015/09/01/13-keys-to-successful-blended-learning.aspx

e-School News, 10 districts that have seen big blended learning success, BY LAURA DEVANEY, DIRECTOR OF NEWS, @ESN_LAURA, October 22nd, 2015

http://www.eschoolnews.com/2015/10/22/districtsblended-learning-824/

“Because blended learning combines face-to-face instruction with personalized online learning, students have some degree of control over their learning pace and how their content is delivered and consumed. Online and blended learning provider Edgenuity works with more than 16,000 schools, and from that base, the company identified 10 schools and districts that are taking blended learning to the next level through student-centered, personalized instructional models that create new ways to address instructional goals and deliver better student outcomes. “There is no doubt that blended learning is a proven solution for transforming the educational experience for students,” said Sari Factor, CEO of Edgenuity. “What is less understood is the level of thought, planning, and change management
required by schools to implement these new models. We’re glad to recognize these schools and districts for effectively executing on a vision of using technology to empower students and teachers, and we look forward to sharing what these schools have learned to help more and more students across the country.”

You’ve Got Learning, Liz Cory, College Hill Independent, October, 2015

“Village Green intentionally breaks the high school mold to resemble an adult work space. “I personally did not want an environment that said ‘school,’” Village Green’s superintendent and founder, Dr. Robert Pilkington, told the College Hill Independent. He wants his students to feel they are entering a very different learning environment from the ones they grew up with: one that rejects collective routines and supposedly gives kids agency in how they use their time … Village Green is the only school in Rhode Island completely devoted to “blended learning,” an educational style that mixes aspects of traditional classroom learning with e-learning, instruction via a computer. Today’s educators, as well as Silicon Valley’s new-wave salesmen, are increasingly asking the question: how could schools better serve students with the technology at our fingertips? Blended learning, according to its advocates, tests the idea that embracing technology doesn’t come at the cost of meaningful human interaction: rather, selectively engineering its presence in schools could give kids ‘empowering,’ and ‘custom-built’ educations.”

Innovations and Initiatives

Since VGV’s early days the school community has always endeavored to approach education differently and to use our ER&D Lab mindset work not only for us but for others as well. Some of the innovations and initiatives were born from discovery and need, and others were part of the school’s original design. Every year it seemed as if VGV learned more and more about blended learning and about how to use adaptive e-courseware to meet and challenge all kids, no matter what their level of success in school had been.

EARLY INNOVATIONS: 2013 TO 2014

Instruction: VGV began in September, 2013 as the first full time blended learning high school with a 1.5:1 device to student ratio, with a 1:10 teacher to student ratio and using a fully common core aligned on-line curriculum and 100% PARCC ready from day one.

Culture: VGV largest challenge was to create a culture of inter-connected learners in a digitally rich and technologically focused environment.

Leadership: VGV leadership team (Pilkington, Baker, and Butler) recognized early on that in order to accelerate student performance in a 100% blended learning environment a system would have to be built which accommodated hyper-differentiation and course customization on a student-by-student basis in a setting where time is truly a variable and not a constant. This was achieved in year one with a 100% amateur faculty, without a single lost day due to software or hardware glitches and with the compete and successful eradication of any vestiges of the traditional seat-time oriented and teacher led instructional paradigm.

Instruction Technology: VGV contracted Envision Technology Advisors to design, implement, and maintain a virtual desktop environment (VDI) capable of simultaneously delivering asynchronous e-learning curriculum to 130+ students.
Curriculum Development: The VGV Program of Study is based on students enrolled in 100% of online courses that would meet or exceed the Rhode Island graduation requirements and also contain a face-to-face mode of curriculum delivery in each course aligned with the asynchronous e-learning experience.

Planning Prototype Development: VGV’s “Projected Program of Study Completion Date” is a computer model for use in predicting the number of available enrollment spaces per grade for the charter school lottery in March. Also, the model is used to inform stakeholders of whether students are on target for a four-year graduation, early graduation, or beyond a four-year graduation. Full off-Edgenuity product was implemented in year two.

Planning Prototype Development: A one-page snapshot report of a student’s four-year VGV Program of Study status. Full off-Edgenuity product was implemented in year two.

Culture: Students at VGV are empowered within their own learning and take full ownership for their success within the courseware. Teachers have transitioned from being the sole planner and deliverer of instruction to being the data-analyst and skill gap interventionist.

Instruction: the VGV system makes incorporation of the 21st Century Learning Skills an organic and un-forced exercise. Our “adult work environment for adolescents” makes quantifying the domains found with 21st Century Learning a compatible and not strained activity.

Curriculum: The “unpacking” of Edgenuity as a suite of courseware proved to be harder than one would have imagined. For all of Edgenuity's excellence, they are still in the stages of transitioning from a vendor targeting credit recovery and home schooled populations. Edgenuity has not yet become a product meant to be rolled out as a district-wide curriculum product. They have some major steps to take and VGV is very much working in partnership with them to help improve their products.

Initiatives from 2014 to the Present

Whole Cohort Completion and Proficiency Snapshots
The Edgenuity platform is limited in its report options and does not offer efficient tools for teachers to use that quickly appraises where certain groups of students actually are with regards to completion of courses and their proficiency levels. This is a serious weakness of Edgenuity. VGV has developed software that interfaces with the Edgenuity 13-variable EXCEL exportable file and automatically reconfigures it, adding additional data, and generates the desired snapshot. Prototypes and discovery in 2013/2014, rolled-out in 2014/2015 and the latest revision has been beta tested in the fall 2016 with highly successful results. This latest version can generated snapshots within minutes with significantly improved graphics.

The Learning Center Pacing Performance Snapshot
A one-page “graphic” was developed for Learning Center (LC) Teacher teams to display a representation of all students in their Learning Center with regards to students’ progress in all four core subjects (math, ELA, Science, and history). VGV has developed software that interfaces with the Edgenuity 13-variable EXCEL exportable file and automatically reconfigures it, adding additional data, and generates the desired snapshot. The “snapshots” are taken at frequent intervals. Color-coding distinguishes between students on pace and those behind the target. Major purposes for this innovation are to eliminate/minimize the chance of students falling through the cracks, an efficient means of assessing LC performance, and data for teacher evaluations.

Customizing Edgenuity Courses
Continued experimentation with customization of courses on a student by student basis and on whole school courses

**The Year of Graduation (YOG) Prediction Algorithm:**
A mathematical model was developed to predict when a student will complete the VGV Program of Study of Edgenuity coursework and be eligible for graduation. Although Grade 9 students leave the starting gate at the same time at the beginning of the school year, given VGV’s “Any time, any place, any path, any pace” model for most courses, students can progress at different rates possibly progressing to the next grade level in the same year. The result is that students may be working on Grade 11 Science but in grade 9 math making a determination of grade level a grey area. The algorithm is based on the student’s historical data for course completion rate from first graded assignment to 100% completion of the course. The need for such a tool also included aiding grade-level enrollment openings for the March lottery.

**Method of Defining Target Percentage Based on “Lessons Completed per Day”**
Development of a pacing system that is based on “lessons completed per day” rather than working towards a specific percentage of content to complete per day. This pacing method is a significant deviation from Edgenuity's professional development guidelines/philosophy that promotes working to a certain percentage on each course every day. If a student were to follow their Edgenuity Student Calendar, they would actually fall behind. The Edgenuity system was found to be flawed for applications whereby students take multiple course simultaneously (e.g., a high school Program of Study). As a result of extensive time study analyses, we found that if students completed three lessons per week in each of the four core areas (i.e., math, ELA, Science, and history), they would complete the courses within a semester.

**The Student Program of Study Progress Report**
Development of a one-page graphical snapshot of a student’s position in the VGV Program of Study using individual “barrel” graphs for each course to display the student’s progress and overall grade in the particular course. In essence, it’s a mapping of a student’s exact position relative to the four-year (or three-year) VGV Program of Study.

**The VGV Program of Study Living Transcript**
Development of a one-page “working” transcript that every student carries with them that shows transfer credits awarded, Edgenuity courses completed with grades, and GPA earned. It is not the official transcript but rather a means of students, parents, and school to be constantly aware of the exact status of the student's position and achievement relative to the VGV Program of Study. With the GPA calculation, it also provides the student with a means of understanding the effect of a course grade attained on overall GPA.

**The RotoFlex Blended Learning Model**
(developed in the 2014-2015 school year and fully implemented in the fall 2015)
An invention of VGV that solved two major problems unique to VGV’s “Any time, any place, any path, any pace’’ model: (1) A majority of students can not self-regulate; (2) The PARCC testing window at approximately 75% into the school year assumes that all students begin their courses in ELA/L and math at the same time in at the start of the school year in early fall and all students will be at or near the same place at the 75% testing time. RotoFlex holds students to a fixed pace in both ELA and math in Grades 9 and 10 but allows students to move at their own pace in all other courses. Beginning in Grade 11, students are allowed to move in ELA and math at their own pace. Inherent to RotoFlex, is that students will be at the same place at the time of PARCC testing and with the fixed pacing in Grades 9 and 10 ELA and math, students experience the necessary pacing expectations to help them be successful in self-regulating. This innovation involved significant customization of Edgenuity courses, including semesterization of courses, but also offered the opportunity to enhance the POS with more Edgenuity courses in the areas of writing, communication, and personal finance.

**The RotoFlex 3 or 4 Year Graduation Model**
Inherent to the major shift in the original VGV Program of Study that involved semesterization of all courses, a pathway for students to complete the Program of Study (POS) in three years. A fourth year would still be used for students
who will require extra time, may not be mature enough to move on, students who would rather transition to college by simultaneously taking a few college courses locally and still attend VGV for a few courses. On June 2, 2016, VGV’s first graduating class of 53 students included eight students who graduated in three year. It is projected that 11 of 72 students will be 3-year graduates in the spring 2017 graduation.

The 21st Century Report Card Draft—World of Work Readiness Criteria
Development of a draft of a 21st Century Report Card that addresses “soft skills” and assesses students as if they were being evaluated by a supervisor in a career position. The draft was developed with the intentions of implementing in the Fall 2015.

The Student’s Daily Diary
Developed and implemented in the Fall 2014, the Daily Diary program was placed on every student’s desktop. The original form was an interactive self-assessment program with six questions for students to reflect upon and answer. Based on the responses a graph is drawn displaying graphically the student’s performance over time. The idea is for this to be completed at the beginning of each day. Unfortunately, there was no means of collecting all students’ diary inputs into one main database. For the 2016 start of school, the latest version is an 11-question Google doc that allows the automatic collection of data for analysis.

VGV funded and spearheaded the creation and publishing (on www.ride.ri.gov) of The Blended Chronicle.
This state-wide publication highlighted the work of blended learners across RI and featured predominantly the work of educators from CHARIHO, West Warwick, Johnston, Highlander Institute, OSHEAN, Pawtucket, RIDE and VGV. In 2015/2016 there are four issues anticipated. At VGV we view the Blended Chronicle as dissemination without external financial support.

As an advanced lab school whose mission is ER&D based, VGV excels in the dissemination of our program model and best practices. Highlights of our outreach effort and sharing of intellectual property and best practices are:

Developed the software and related code for an advanced TCS data collection system for self-paced proficiency/competency-based blended learning models (Presented to the Rhode Island Department of Education—October, 2015)

The report entitled: “Proposed Teacher-Course-Student (TCS) System for a Self-Paced Proficiency/Competency-Based Blended Learning Model” (VGV Technical Report No. VGV-TR-1001 Rev. 10-12-15) was submitted in October, 2015 to the RI State Department of Education. During the development of the VGV program model, clear and present conflicts were identified between our non-agrarian calendar and proficiency based system and the traditional school year based systems that exist in RIDE’s TCS system. VGV developed the code and software to achieve and preserve the data collection goals, with fidelity to RIDE’s TCS data requirements, but without the need to memorialize an end of year date certain and end of year grade by course. Drew Allsopp brokered a meeting with the ODAR team and we were presented with alternatives that proved to be potentially injurious to the school. After promises of follow up went unfulfilled, VGV delivered hard copies of the code and an introductory letter to Dr. Wagner and Mr. Osborn. The delivery of this valuable code went unacknowledged.
Published: Inventing School: The Bricks and Mortar Asynchronous e-Learning RotoFlex Blended Learning Model by John Butler, PhD, PE, with Foreword by Dr. Robert Pilkington (Publication Date: April 2, 2016; ISBN 978-0-692-66335-6; 276 pages; available on Amazon).

An e-copy was delivered to Steve Osborn in late June of 2016. This powerful book tells the VGV story and supplies the reader with explicit details about the building and management of digital school culture and operations. The book includes 75 lessons learned and 101 teacher best practices. Also included is a chapter that details the technology deployed, a chapter on several of the innovations. No other similar book is found in the research literature. The lessons contained within Inventing School can save an emerging blended learning school hundreds of hours and years of trial and error. No school has so painstakingly recorded its lessons and findings in such an expansive yet cogent way. As VGV works to fulfill its mission of reshaping teaching and redefining school we believe that the publication of Inventing School is one of the most profound acts of dissemination by a RI charter school. Its sole purpose is to advance student achievement in all schools by promoting the VGV model and sharing our valuable insights and lessons.

Published: Knocking it Out of the PARCC by John Butler, PhD, PE, with Foreword by Dr. Robert Pilkington (Publication Date: March 7, 2017; ISBN 978-0-692-80592-3; 182 pages; available on Amazon).

This book describes how one urban school followed Pearson’s breadcrumbs, cracked the code, and raised student achievement on PARCC’s high school English Language Arts & Literacy assessments by historic gains in one year. The author presents his research in developing profiles for the Literary Analysis, Narrative Writing, and Research Simulation Tasks based on analyses of PARCC’s released scored student essays. Also included are the actual teacher resources developed and related interventions implemented for teaching students the targeted skills for demonstrating writing proficiency and thereby inherently scoring high on the PARCC. The author begins with a fascinating look at the current “state of the art” of automated essay scoring (AES) and shares several of his discoveries during his development of an in-house classroom teacher tool for analyzing and scoring student essays. A must read for high school English Department Chairs and teachers of ELA and Literacy!


This book details VGV’s development of 16 Personal Pathways. Students entering VGV take the externally-scored, nationally-normed NWEA MAP assessments in Reading and Mathematics. Their performance on the assessments along with other measures (e.g., performance on state assessments in eighth grade determines which pathway they will follow. Two pathways provide the opportunity for completing their program of study in three years. The remaining 14 pathways contain some degree of remedial coursework to close skill gaps—these pathways require four years. However, all 16 personal pathways lead to the opportunity for Dual Enrollment in a local college.

Other noteworthy efforts in ER&D, bridge building, sharing resources and promoting a VGV lab mind-set

Signed an agreement in the spring of 2016 to become a TEALS K12 school. As one of only seven schools in RI who are participating in this important Microsoft funded computer science program, VGV is proud to offer computer science on our campus taught by industry professionals and facilitated by the Governor’s Office of Innovation.

Constructed an entire demonstration school exhibit at RIDE’s Empowered by Technology Conference in the fall of 2015. This elaborate, yet miniature version of the VGV LC to Workshop rotation, was complete with furniture, technology, teachers, and students. It was an interactive display which brought our model to life at the state’s largest educational technology conference.
Served as a case study school showcased in the RI Governor’s Office of Innovation’s white paper on personalized learning in RI.

Crim Open Campus High School Crim has found VGV to be a willing partner in their professional development and planning as they begin to use Edgenuity in a comprehensive manner. In all, Crim has sent twelve teachers and administrators to RI to visit VGV over a four-day period of time. Students served as demonstrators of the program and participated in six hours of focus groups with the staff from Crim. In total, the staff from Crim has been on campus for 36 to 40 hours. Developed a compact with the Alonzo A. Crim Open Campus Public High School in Atlanta, Georgia. Administration and faculty from Crim Open Campus have spent a total of five days on the VGV campus in the 2015/2016 school year. VGV also developed, through our Edgenuity connections, a relationship with Norwalk Pathways Academy, whereby we provide technical assistance through hosting on-site visitations.

Entered an agreement with International Educational Partners, LLC to provide technical assistance and program modeling for emerging schools in Beijing, Shanghai, Guangzhou, Hangzhou, and Mumbai.

Hosted day and multi-day visits for administrators and teachers from Cumberland Public Schools, Cranston Public Schools, North Providence High School, Tulsa Public Schools, the Carnegie Foundation, and Evolutions High School PPSD, Highlander’s Fuse Fellows, Roosevelt International Academy, Norwalk, CT Public Schools, and Ohr Reuven Jewish Day School in Suffern, NY. Collaborated with Bank of America, through BoA VP of IT and VGV Board of Trustees President Jeanette Wiggins-James, to host a summer camp (Tech Camp) in computer science and coding for middle school students from all over Rhode Island. Our physical plant and Learning Center lay out was ideally suited and the use of the facility was complimentary.

Our Design Space was established in 2015/2016; the third place of learning at VGV per our charter is the school’s informal learning center known as the Design Space. In the charter of 2012, VGV identifies three spaces of learning within the school, the Learning Center, the Workshop, and the Design Space. Since the founding of VGV the Maker-space or Tinker space movement had emerged and our Design Space is akin to these. Establishing the Design Space was a charter fulfillment item.

Dr. Michael Vose of UCONN spent four months in 2016 observing LC2 and working with the LC2 team of teachers in order to write the doctoral dissertation and case study Alive in the Hive.

VGV has developed many software tools which enhance the Edgenuity curriculum and its ability to produce comprehensible data reports. Over the course of the year representatives from Edgenuity spent a total of four days touring the school. The visitors were top management officials, curriculum developers, software engineers and program developers and the actual teachers who appear in the e-courseware virtual lessons. Feedback from students was integral to their visits.

Carnegie Schools, Highlander Institute, and Christensen Institute - Numerous organizations who are either leading or learning within the blended learning movement came to VGV to spend time and learn from our teachers and students. Every visit and return visit involves prolonged conversations with students about their VGV experiences. VGV puts many employee and student hours into making sure, the visiting schools or organizations learn as much as they can. We are very open to sharing our valuable intellectual property and innovations.
Branding, Outreach and the “One Hundred and Eighty Day Open House”

Since the fall of 2015, VGV has offered the “180 Day Open House” to all RI public school districts. Every superintendent has been contacted with the flier, a welcome letter and an invitation to visit any day at any time.
In the fall of 2016, Dr. Pilkington traveled to China as a guest of the Chinese Government and at the request of China Edukeys International Education Services Co., Ltd. During a fourteen day period of time, Dr. Pilkington visited five secondary schools and met with top education officials. Crisscrossing China by plane, car and bullet train, the Village Green Blended model was presented to school leaders and audiences of students and parents. Numerous signed copies of Dr. John Butler’s Inventing School were presented as gifts to VGV’s newest friends. The purpose of the visit was to introduce Chinese Middle Schools to the Blended Learning concept as a method of introducing American style pedagogy to China’s younger students. At the high school level, the Chinese would like their students to actually study in the USA. However, as a precursor to that opportunity, VGV’s Blended Model is a very attractive first step in unveiling American style instruction in English, with VGV support, in order to have Chinese Middle Schoolers prep for a potential experience abroad. In the spring of 2016, VGV entered an agreement with Edgenuity and International Educational Partners, LLC to provide technical assistance and program modeling for emerging middle schools in Beijing, Shanghai, Guangzhou, and Hangzhou. Currently, talks are proceeding with a potential start date of September, 2017. Next school year, there may very well be a VGV presence in China!
China

35.8617° N, 104.1954° E

China