Personalizing American Secondary Education: Findings from a Small, Urban Secondary School

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Abstract

One of the novel facets of the American education system is the rise of charter schools. These schools, often located in areas impacted by high poverty, focus on innovative ways of increasing school achievement among the most marginalized students. The Global Learning Charter Public School (GLCPS) in New Bedford, Massachusetts is one such institution. GLCPS, named by the Washington Post as one of America's "Most Challenging High Schools," is a 500-student secondary school for students in grades 5-12. For years, GLCPS students have scored at- or above-average on state exams and 100% of graduates have been accepted to a two- or four-year college. The success of GLCPS in closing the achievement gap and bettering the college prospects of its students are the direct result of the school's comparatively small size. This allows for a more personalized educational experience during the crucial adolescent years.

This paper will explore the school's personalized education experience in detail. I will explore how we capitalize on the small school experience through 1) technology literacy 2) Presentations of Learning (our holistic approach to evaluation), 3) Arts exploration, and 4) Project-Based Learning. At GLCPS each student is required to improve their technology literacy through matriculation in several courses. In grades 9-12, students are given a personal Chromebook to aid in completing their assignments. Presentations of Learning, occurring three times per year, afford students the opportunity to improve their public speaking skills by demonstrating their knowledge in front of a public audience. Students explore visual, fine, martial, and the musical arts through the choice of an arts pathway. Fourth, I will discuss the school's use of Project-Based Learning as a medium of curriculum design. Finally, I will note the importance of a small school environment in building both an academically rigorous learning culture and a culture that values students as unique individuals.

1. Introduction

Since the late 1800s, the American school system has been defined by an adherence to an industrial model of schooling, which is informed by the principles of scientific management. The structure's greatest goal is to provide a basic education for a large number of pupils for the most efficient use of funding. In the United States, this standardized structure has failed students and left many with a bleak view of learning. As Sir Ken Robinson reminds us, however, "education has to be a human business" [1]. The Global Learning Charter Public School in New Bedford, Massachusetts is one place where education *is* a human business.

Begun in 2002, the Global Learning Charter Public School (GLCPS) was founded as a publically-funded alternative to serve students in the city of New Bedford, Massachusetts in the United States. New Bedford is a city struggling with a declining industrial core, comparatively high rates of poverty, and low student achievement, particularly at the high school level. Over the past 13 years, GLCPS has used a unique student-centered pedagogy and design structure to produce results that far out perform the traditional public secondary schools in New Bedford. This pedagogy centers on the importance of approaching students as individuals with unique learning needs, passions, and future plans. The pedagogy incorporates cutting-edge 21st century technology literacy, public Presentations of Learning, fine arts and music exploration, and Project-Based Learning. Undergirding these components is a grade-span and structure that is unique in American education. These structures and pedagogies have led to many accolades: in 2014 and 2015, GLCPS was awarded a silver medal as one of the best high schools in the country by US News and World Report [2].

2. Structure of school

GLCPS is a secondary-level school that begins in grade 5 and ends in grade 12, where American students traditionally matriculate to college or university. Additionally, GLCPS enrolment is capped at 500 students total, with approximately 340 of those students enrolled in grades 5 through 8 and 160 in grades 9 through 12. The school's only entry years are at fifth and sixth grade. This creates an

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important dynamic where graduates at twelfth grade have been at the school for seven or eight years. This small size is in direct contrast to the traditional public schools in New Bedford. Below is a chart outlining the size comparisons of the secondary schools in the city of New Bedford:

Name of School	Number of Students Enrolled
GLCPS (Grades 5-8)	**340**
Normandin Middle School (Grades 6-8)	1125
Keith Middle School (Grades 6-8)	872
Roosevelt Middle School (Grades 6-8)	782
GLCPS (Grades 9-12)	**160**
New Bedford High School (Grades 9-12)	2066

The smaller enrollment and grade span of GLCPS encourages teaching faculty and staff to personally connect with each student and family. This personal connection is a crucial component to meeting the learning and social-emotional needs of each student. Moreover, personal connections aid teachers in developing student-centered curricula based on the four key learning components discussed in greater detail throughout this paper.

3. Technology literacy

One of the key components of GLCPS's learning program is a focus on technology literacy for its students. When the school began, this meant dedicated time for students to learn the basics of Microsoft Word, Excel and Powerpoint. This also meant that classrooms had access to a class set of roving laptop carts or had six to eight desktop computers. As technology in schools has changed, so has the focus of GLCPS's technology initiatives. Students are now required to take multiple technology courses centered on topics such as app design, programming, and robotics. In 2015, GLCPS launched its one-to-one laptop initiative where all students in grades 9-12 receive a school-purchased computer. The school has fully embraced all facets of Google's Apps for Education. Individual student skill practice in mathematics courses is facilitated through the Khan Academy platform. A number of teachers are experimenting with the flipped classroom model. Students are producing content for the school's YouTube channel and designing a variety of objects produced in the school's 3D printer. This push isn't limited to STEM teachers, however. In the summer of 2015, 1/3 of GLCPS teachers participated in coding course, learning how to incorporate computer programming into STEM, history, English, and fine arts courses.

4. Arts exploration

Research from Catterall (1998) has found that "High arts students earned better grades and performed better on standardized tests. High arts students also performed more cornmunity service, watched fewer hours of television. and reported less boredom in school" [5]. These findings held when students from lower socio-economic backgrounds were assessed. These findings undergird another key component of GLCPS's program: an embrace of the arts and music as key components in all students' educations. Students are required to take either a fine art or music every year. Moreover, the school's teachers have constructed arts "pathways" to encourage the deep development of student skills.

5. Project-based learning

Having roots reaching back to 16th century Rome, Project-Based Learning, or PBL, is "organized around the solving of a challenging problem" or answering a challenging question [7]. This structure is inherently active, often with students working in teams to solve community problems or discuss community issues. The learning outcomes are not demonstrated by a test, but rather in authentic ways: through community presentations, creation of books, or designing products. In this way, individual skills are taught connected to a real-world context. Learning to read a graph or chart or solve a complex mathematical problem has greater meaning for students. At GLCPS, Project-Based Learning is the key curricular design element. All teaching embeds elements of Gold-Standard PBL as defined by the Buck Institute for Education [3]. This model weaves using state standards and skill development with authentic opportunities for feedback and exhibition. Further, the school emphasizes the building of 21st Century Skills: critical thinking, collaboration, communication, and creativity [4]. Project-based learning is an ideal pedagogy to bring these meta skills into the classroom. Through this structure students have constructed bird houses for nature conservation organizations, created new

signage and digital apps for the local zoo, interviewed and written oral histories of some of the city's homeless population, and researched green technologies in building design.
In each of these projects, student choice of approach or final product is a key design component [3]. Encouraging students to follow their learning passions increases their motivation. Motivated students are more likely to attend and finish school. Below is a table showing the daily attendance rates of GLCPS compared to the traditional public high school in New Bedford:

	2011	2012	2013	2014	2015
GLCPS	95%	95.7%	96.3%	96.5%	96.5%
New Bedford High	84.2%	86.4%	90.4%	89.9%	85.5%

The data in the above table clearly shows that students at GLCPS attend school at a much higher rate than their counterparts. This could be a sign that GLCPS students are more motivated to attend school. Below is a table comparing the same two schools' percentage of 12th grade students graduating high school in four years:

	2011	2012	2013	2014	2015
GLCPS	83.3%	86.4%	92.9%	95%	88.9%
New Bedford High	56.4%	55%	59%	60.8%	57.9%

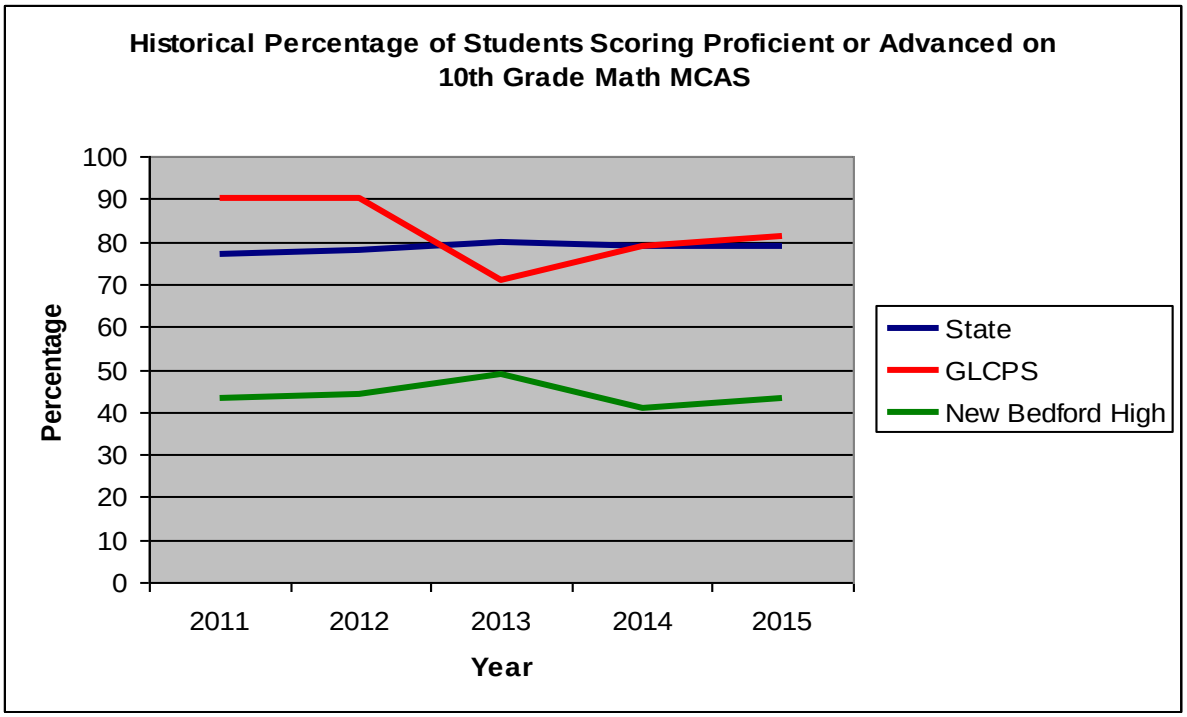
The above tables clearly illustrate that GLCPS is leveraging its unique learning structure in helping its students succeed relative to the traditional public schools in New Bedford. The curriculum, driven largely by Project-Based Learning, is a key component to this structure.

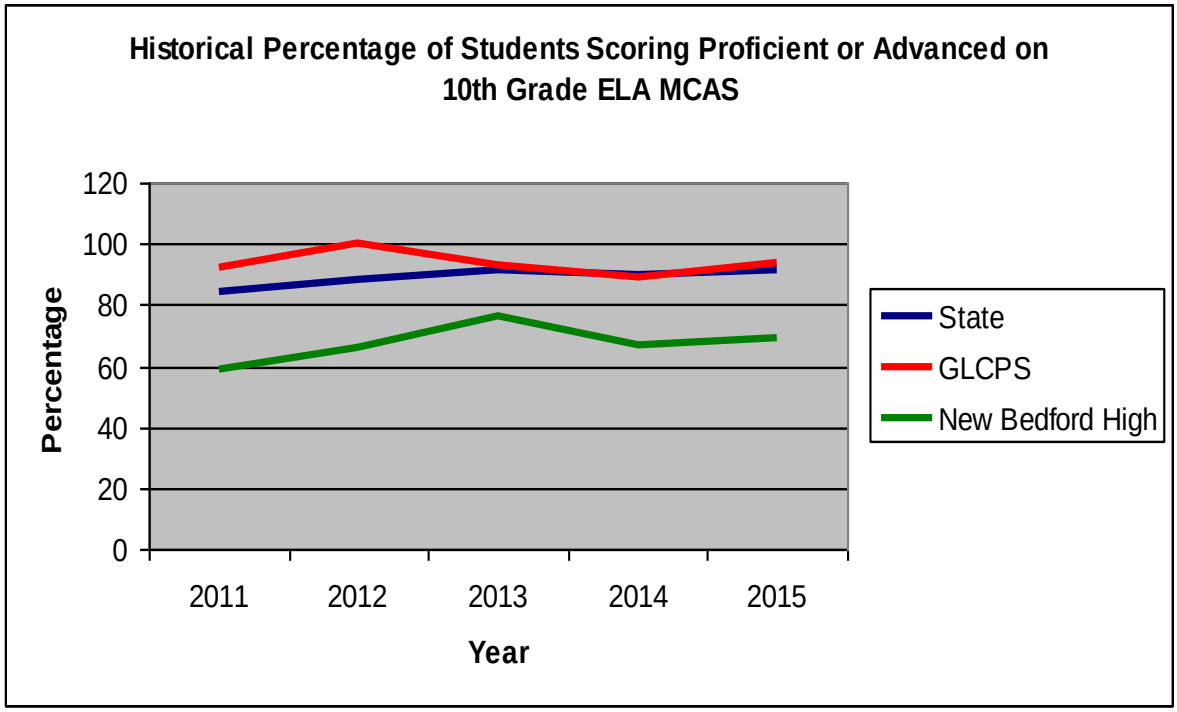
6. Presentations of learning

Kay and Greenhill note that a "skill that is repeatedly deemed by employers to be inadequate in their employees is communication" [4]. GLCPS combats this by focusing on one of the key components of PBL: the public presentation or exhibition of student work. This exhibition gives students an authentic audience or context to demonstrate their learning. At GLCPS, these exhibitions take the form of Presentations of Learning or POLs. Three times per year, students at GLCPS present work to a public audience for assessment and feedback. This audience includes fellow students, school staff and administration, and most importantly, community members. While most of these presentations occur on the school grounds, some occur in other community venues.

7. Findings and conclusions

For more than a decade, the Global Learning Charter Public School has used its unique student-centered structure to deliver student achievement that outpaces the local traditional public school. This structure is not a one-size fits all structure. It is constructed on the principles that a small school setting coupled with a focus on technology, fine arts and music, student-driven Project-based Learning, and public Presentations of Learning engages students in tasks and experiences that make attending school a worthwhile endeavor. This attendance leads to impressive achievement. Below are two charts comparing mathematics and English Language Arts student achievement on the Massachusetts high school exit exam:





Each of these charts shows that despite a programmatic focus that de-emphasizes success on standardized testing, the Global Learning Charter School has developed a program that accelerates achievement on these tests. In explaining this success, the school doesn't emphasize one facet over another, but rather points to the importance of the total program, including its small size and eight-year-long grade span. The success of this school could serve as a model for secondary schools across the United States.

References

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