



A Principal's Discussion: Opening a New School

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INTRODUCTION

"We shape our buildings: thereafter, they shape us." - Sir Winston Churchill

Every educator has experiences that shape his or her personal and professional opinions about the profession of teaching: the ways in which students learn as well as the optimal conditions that enhance student achievement. As an educator, who worked in both older and brand new facilities, there is a perceptible difference in feeling among students and staff in a new building compared to that noted in an older building. Having worked in three brand new high schools in the Commonwealth of Virginia since 1993, as well as two older high schools, the people working in a new building appear happier, students in a new school generally are on their best behavior, and achievement in a new building can be improved markedly.



The author's first visit to a new high school (1993) in which he would be employed as an educator resulted in a sense of awe and wonderment at the facility and its design and layout. Similar experiences followed in 2003 and 2006: first as an educator at a new school and then as a member of the administrative team that opened a new high school. In 2010, as the planning principal of Patriot High School located in Nokesville, VA, the opportunity to implement some of the design ideology about furniture, classroom layouts, and student and staff interactions with technology were realized.

Patriot High School was designed by Moseley Architects of Richmond, VA and was designed to hold 2,053 students. Currently, there are 2,750 students enrolled, but that is another story. When I was named as the principal, the enormity of my work was not clear at the time; and in some cases, I had to learn as I went. I had ideas about classroom furniture, technology in the classroom, and the type of staff members I wanted to hire. What I was not prepared for was the process to procure those items, the process to secure their delivery and installation, and the multitude of information that was going to be presented about which I had to make a decision. Things such as the school logo, mascot, school colors, cafeteria furniture, classroom computers and technology, as well as office furniture, file cabinets, and landscaping were all decisions in which I was to be involved.

BACKGROUND

Having worked in the field of education since 1993, I have held many different types of positions – teacher, coach, assistant principal, and principal. From 2008-2010, I served as the principal of Lee-Davis High School in

Mechanicsville, VA. In April of 2010, I was named as the planning principal of Patriot High School, at that time known as high school eleven for the Prince William County School System. While at Lee-Davis I had initiated some small changes and facility improvements. Nothing would compare to opening and staffing a brand new facility. As of July of 2010, Patriot High School had two employees – a principal and a bookkeeper. By September of 2011, there would be 86 teachers, 6 counselors, 4 administrators, and 17 support staff working in a brand new building with 1,600 students in grades 9-11. Today, there are over 230 staff members – administrators, teachers, support and food services staff that work at Patriot High School. It currently houses over 2750 students in grades 9-12.

While serving as the principal of Lee-Davis High School in Mechanicsville, VA from 2008-2010, the building was undergoing an HVAC and roof renovation and also celebrating the school's 50th anniversary. After being appointed as principal, it became obvious the conditions of hallways, classrooms, and office areas were somewhat dingy and/or unappealing. As a part of the 50th anniversary celebration for the school, held in the fall of 2008, improvements to the building and physical plant were undertaken—to include painting hallways and door jams and installation or improvement of lighting fixtures in hallways. The improvements made to the physical plant were not drastic but were enough to validate what the author had learned during the opening of two other new schools and the dissertation research completed for the doctoral program at George Washington University. When selected to serve as the planning principal of the new high school in Prince William County, I embraced the opportunity to implement many of the things learned in the dissertation process. It was an opportunity that many never have the chance to experience; I was privileged to be in charge of this multi-million dollar project.

PATRIOT HIGH SCHOOL

Once the Prince William County School Board chose the name for the 11th high school as Patriot High School, the identity of the school was determined. As the planning principal, one of the responsibilities was the selection of school colors, the coordination of those colors within the building, and the selection of a mascot for the school. It was important to select colors and a mascot that would help to create an identity within the community as well as within the northern Virginia area. After the naming of the school, a color scheme was selected. Research revealed that a textile factory existed in the area around the time of the civil war, and it produced three colors of cloth – blue, red, and gray. These colors were selected and would tie the colors of the school to some historical information. As for the mascot, a survey was conducted with rising 8th graders from the two feeder middle schools, and suggestions ranged from things like snakes and eagles to other animals. One of the choices, however, provided some insight into what the students of the school could become and provided an identity for the staff—a pioneer.

The PWCS school board approved the Patriot High School mascot as the “Pioneers” in the summer of 2010. The mascot was fitting and significant for several reasons:

1. This would be the first school in the county with wireless devices available for staff; no PC's would be positioned in the classrooms.
2. Promethean boards were installed in every classroom for instructional purposes.
3. The building's design was significantly different from the other 10 high schools. It incorporated into the design natural lighting, wide-open spaces, and a variety of instructional spaces for students and staff.
4. It was set to have two artificial turf practice/multi-purpose fields for athletics. More importantly, the mascot "Pioneers" would define the type of students the school hoped to produce and the staff who would be employed there. It was the perfect name for a mascot.

A process was developed to get student input into the design of the mascot and what he or she might look like. Ultimately, the design and logo used on all of the spirit wear and uniforms, shirts, sweatshirts, etc., was branded with the script logo and flying "P", adopted from a defunct professional sports team.

IDENTITY

As a new school, it was important to develop a specific identity and framework to organize around in terms of staff selection, leadership positions, and support staff placement. In the summer of 2010, a need was determined to set the identity of the building, and four core words kept coming up in the discussions held with construction personnel, central office staff, and community leaders – Leadership, Integrity, Character, and Pride. These four words became the core principles for Patriot High School.

First impressions are important, but the most significant question centered on the type of leaders that would be selected to help staff the building. Administrators, department chairs, counselors, and instructional staff were important to the successful operation of the school. Just as important though was the support staff selected to help open the school and create the identity that was desired. In the process of selecting those people, interview questions centered on self-reflection, leadership potential, and sound instructional practices. Additionally, an effort was made to identify and select those who were technologically proficient or who were willing to embrace technology. Staff selected for the initial year was identified from a potential pool of over 1000 applicants, of which over 650 interviews were conducted and 86 staff selected from that process to open the building as the inaugural staff.

The leadership potential of students is limitless, and evidence of that ideology had been a part of the building principal's previous professional positions--teacher, coach, administrator--all roles that require the assistance of other leaders in order to be successful. As a result, the ideology of the school under construction and the staff being assembled centered on the *7 Habits of Highly Effective People*. Staff members were selected who embodied and or exemplified the concepts contained in Covey's work. The summer prior to the school's opening (2011) all staff went through training to teach students about the "7 Habits" as a means for organizing

and prioritizing their daily interactions. The training allowed instructional staff to organize lesson planning as well as advisory lessons for students that centered on those concepts. It has continued, as an induction program held for all new staff and run by teachers, to help orient them to the expectations of the school, as well as cultural and personal observations. Now in its fourth year of existence, the concepts and ideology of the Covey materials is evident throughout the school, in daily lessons, in test language used with students, and in student activities and extracurricular events.

PREVIOUS RESEARCH

Researchers have made recommendations regarding principles of school building design for future construction. National organizations, whose focus is on the improvement of educational facilities, have released guidelines and suggestions as well as results of studies that document all the elements of school design that should be included in the next generation of school buildings.

The planning process for the school facility is just as important for the success of that building as the bricks, mortar, and concrete supporting the physical structure. To be successful in the creation of new facilities, school officials must make an active effort to engage the community members who will be served by the new facility. To reduce the costs of design and construction, varied new methods are being implemented to pay for these multimillion-dollar facilities. School and business partnerships, alternative funding models, and development of the school as the center of the community are all examples of innovative strategies to promote new school design and construction.

In 1998, Lackney recommended that school design elements include aspects of brain-based learning research to promote student achievement. He recommended that school design incorporate small-group learning environments; views of the outside; interior design that utilizes different colors, shapes, and spaces; an abundance of professional and student resources areas; flexible academic spaces; semiprivate places for individual instruction; and personalized space for students and teachers that allow them to develop a sense of identity and common purpose.

Previous research findings regarding the impact of school facilities design and the built environment on student achievement have been substantiated through research models (Cash, 1993; Hickman, 2002; Hines, 1996; Lee, 2006; Lemasters, 1997, Tanner, 2015). Much can be learned from that research regarding the physical environment for learning, the behaviors of students and staff as they relate to the physical environment, and the overall condition of school facilities.

Previous research into school facilities condition and the relationship of the condition of the facilities to student achievement, as well as student, staff, and teacher behaviors and attitudes, identified a clear pattern that was repeated in several quantitative research studies (Cash, 1993; Crook, 2006; Hickman, 2002; Hines, 1996; Lee, 2006, Tanner, 2015). They suggested that student achievement improves by as much as 11% in a

new school building (Cash 1993; Lemasters, 1997) and that student behaviors also improve in a new school building (Hines, 1996; Hickman, 2002). Further, previous research indicated that staff attitude and morale improve in new school facilities compared to those factors in a building considered to be in poor physical condition (Hickman, 2002; Lee, 2006).

In many of the previous research studies, the condition of the building was measured using either the CAPE or a variation of the CAPE survey instrument created by Cash in 1993. Some of the previous research (Hickman, 2002; Lee, 2006) attempted to explain the statistical data that were presented. In the case of Hickman's research, an attempt was made to collect information from building level principals of new schools; however, the information was collected through a paper-and-pencil format and respondents were asked to respond to either open-ended questions or to complete a Likert-style questionnaire that ranked and prioritized the information about the building itself.

PATRIOT HIGH SCHOOL CLASSROOM IDEOLOGY

Patriot High School covers 312,000 square feet and is built to hold 2,200 students. It currently houses 2,750 with modular units installed in the rear of the building. The main building incorporates the use of natural light in nearly every learning space, wide multi-functional courtyards, a multimedia center/library space, as well as areas for performing arts, career and technical education, and core academic spaces that allow for multipurpose academic disciplines and provide students and staff with choices when it comes to the learning environment.

The process of creating the classroom environment was started with the architectural design elements incorporated into each learning space in the building. As the planning principal, and one of two employees in the opening year, I was forced to make decisions about "how" the classrooms would look as well as who would teach in them. Patriot High School opened September 6, 2011, and about 1650 students were enrolled. Every classroom contained a Promethean Board and all of the supporting technology to allow both students and staff to actively participate in the learning process.

Classroom furniture allows for students and teachers to make choices about the arrangement, location, and how the space will be utilized. We put what is called a "boomerang" desk into every classroom, which allows students, who are right handed or left handed, to sit comfortably in the seat. It also allows students and staff to make choices about how it is arranged. No chairs are anchored to student desks – they are all independent of the student desks, thus allowing freedom, movement, and arrangement based on students' perspective and individual learning activities.

The teacher furniture in every classroom is portable and lightweight--the space itself allows for flexibility in where it is located--and every teacher actually has two desks, one for technology and one as the workspace. None of the teacher workstations look like typical classroom desks, and they were purposefully selected so the

space would not seem like it was filled with “teacher stuff.” The teachers are issued a laptop that allows them to be not only portable, but also allows them to take whatever work they need to complete at home with them—thus allowing them the freedom to plan, assess, and/or participate in classroom discussions they have set up on their school website. Math classrooms and science classrooms contain slate or tablet devices that allow the teacher to be mobile, move about the room, and demonstrate concepts and/or instructions, which are communicated directly to the Promethean Board in the classroom.

In addition to the classroom technology offered for instructional purposes, several mobile laptop, iPad, and/or chromebook learning labs have been implemented to facilitate student learning and access to technology. In 2013, thirty students participated in a Chromebook online learning pilot, which allowed them to work in a completely paperless environment for an AP human geography class. The feedback from students and parents has been overwhelming on the classroom layout and design elements found within the classrooms. Achievement scores and assessment results back up what students and staff have reported about the learning environment contained within the building.

Guidelines follow, which will assist any planning principal in getting ready to open a new school.

NEW SCHOOL OPENING GUIDELINES

PRE-OPENING

1. Emphasize community engagement
 - a. Meet with community organizations (Lions Club/Ruritan/Feeder middle schools' PTAs)
 - b. Share and establish ideology, vision, and organizational expectations with stakeholders
 - c. Involve students in the process where appropriate (mascot selection/school identity/etc.)
2. Work with central office liaison to ensure acceptance of specific things by school board
 - a. Get mascot/colors/ideology approved in advance
3. Design/look/feel/branding/copyright (must get permission to use)
 - a. Use a collaborative decision-making process for logo/mascot
4. Research historically significant events/places/people
 - a. Search impact on the community

CONSTRUCTION--SUPERINTENDENT AND PROJECT MANAGER

1. Communicate with supervisor of construction and project manager
 - a. Establish a good working relationship with overall project manager, architects, and site supervisors

PURCHASING

1. Make sure you understand the process for purchasing – deadlines, procedures, requirements, etc.
 - a. Sit down early with all buyers/purchasing employees and know the expectations
 - b. Establish relationships with those people and ask questions
 - c. Follow up when you have questions
 - d. Establish a timeline/chart with specific dates/targets to meet
 - e. Understand that specific things must be ordered early to go into production (band uniforms/athletic uniforms/band instruments)

EDUCATIONAL PROGRAMS

1. Understand what CTE/specialty programs the principal and school may support
2. Make sure new programs are budgeted for 25+% more than you expect
3. Understand the training and certifications that might be required for certain employees and the impact it has on the budget

FACILITIES OPERATIONS

FINANCE

WAREHOUSE/FACILITIES

- a. Work to develop relationship with manager (if present)
- b. Store some supplies and help with some deliveries throughout the year
- c. Understand things from other schools may need to be borrowed or used
- d. Understand orders for equipment/furniture/etc., cannot be scheduled until the temporary occupancy permit is granted by the local government agency

COMMUNICATIONS-TELEPHONE

- a. Use school-issued cell phone as main communication; other phones may not be available
- b. Implement and install building telephones and communications (fire system/computer systems/networks)
- c. Research placement and number of telephones to be ordered
- d. Prepared to convert construction room numbers to actual room numbers

COMMUNITY-PUBLIC RELATIONS

- a. Hold a public meeting early in the planning process. Follow up in Spring if need be.
- b. Set a hiring timeline/information – post it to your website. Transparency is best.
- c. Set media interviews: newspaper, TV, etc. – schedule those in advance and strategically set them up when people will want to know.

FACULTY AND STAFF PROCUREMENT

- a. Request human resources (HR) facilitate Winter and Spring meetings
 - i. Use those meetings to share who you are and what you would expect with potential staff members.
- b. Publicize and post for department chairs and leadership team through the HR department.
 - i. Introduce your athletic director/director of school counseling/department chairs/other pertinent staff members once they are all named
- c. Introduce coaches/sponsors a five or more months before school opens
- d. Assure public knows who they are – publicize bios on the website.
- e. Prepare for the interview process – be involved in the selection of staff

Author's Notes:

One of the things I am most proud is that we made an attempt to hire the best possible people who were available to fill vacant positions. The earliest hire was a bookkeeper, then guidance, activities, and security director, as well as an Executive Secretary. From those initial people, we formed a core team, who then hired department chairs, coaches, guidance counselors, teachers, and instructional and support personnel. When you are named the principal of a new high school, you need to be prepared for the onslaught of resumes, emails, and drop in visits you will receive once people make their minds up that they are going to apply. Between December of 2010, and August of 2011, I conducted or was a part of about 400+ interviews to select the initial 110 staff members. Most of the people we selected were fantastic, and we knew we had the best possible people for the available positions. Being a part of that process, while also selecting classroom furniture, instructional supplies for specialty programs (we have four), and items for the maintenance people can be daunting, and also very rewarding.

PATRIOT HIGH SCHOOL RESULTS

Since opening its doors in 2011, Patriot High School has grown from a school of about 1600 students to one that will house 2750+ in 2015-16. During that time, the school has grown in terms of population, but it also has shown marked improvement in other areas, most notably academic performance and disciplinary incidents. The following information is offered as support of the author's contention that design ideology and architectural design, when combined with a focus on educational outcomes, can deliver outstanding results for students and staff.

- The average SAT scores for 2012 ranked above the PWC average in math, writing, and critical math, and above the national average in math and writing.
- The average SAT scores for 2013 reflected a double digit gain in all three areas measured: critical reading scores improved 14 points, math scores improved 11 points, and writing scores improved 11 points from the 2012 administration of the SAT.
- The average SAT scores for 2014 reflect the following: English average scores (510) rank 23 points higher than the national average (487), math scores reflect a +14 score differential over the national average, and critical reading ranks +30 when compared to the national average on the 2014 administration of the SAT. The overall average composite score of 1564 exceeds the national average of 1497.
- In 2013, Patriot High School ranked in the top 1% of all high schools in the nation, according to the Washington Post Challenge Index in terms of the number of AP exams administered as a percentage of the school's total population.

- In 2014, Patriot High School ranked in the top 3% of all high schools in the nation, 1st in Prince William County, 13th in the state of Virginia, and 318 of 22,000 schools ranked by the Washington Post Challenge Index.
- In the school's first graduating class in 2013, 54.4% of the graduates earned an advanced diploma and 41% earned a standard diploma; 59% of students in the class of 2014, with 68% having earned an advanced diploma in 2015.
- Patriot High School exceeded state and federal benchmarks for State assessment results each and every year of its existence, including the last year, when a large majority of the content on the math, English and science EOC tests was changed and or altered by the Virginia Department of Education.
- In the spring of 2014, over 2,000 AP exams were administered at Patriot High School with 61% of the students taking the test having attained a qualifying score of 3, 4, or 5.
- 65% of all students were enrolled in a Pre-AP or AP courses for 2015-2016, up from 37.1% in 2012-13, and 17% in 2011-2012.
- Total suspensions reduced from .9% in 2011-2012 to .03% in 2014-2015, while increasing enrollment from 1600 to 2770.
- 97.88% of all freshmen passed three of four core classes.

Source of Data: College Board, PWCS Data warehouse

Patriot High School State Assessment Data (Virginia SOL)

2011 - 2012	2012 - 2013	2013 - 2014	2014-2015
Math: 79.5	Math 82.20%	Math: 86.5%	Math: 88%
English: 98.3	English 96.10%	English: 95.3%	English: 93.2 %
Science: 97	Science 93.70%	Science: 94.2	Science: 96%
Social Studies: 91.6	Social Studies 96.20%	Social Studies: 95.7%	Social Studies: 96.5%

Source: PWCS Office of Accountability

Summary Information				
SAT Scores / Patriot High School				
	Writing	Math	Critical Reading	Overall
Nation	487	513	497	1497
Patriot High	510	527	527	1564
Overall Information				
<p>Named as <i>Washington Post Challenge Index School</i> for two consecutive years. 2014: Ranked 1st in PWC, 13th in Commonwealth of Virginia, and 31st in Washington, DC Metro area. 318th of 22,000 schools measured in the USA. Total % of AP Test taken: 17% (2012), 36% (2013), 39% (2014), 42% <i>projected</i> (2015) <i>Note: 2200 AP tests will be given in 2015 = many of the 1100 students take multiple tests.</i> 88% increase in the number of Pre AP /AP Math courses offered since 2011. 64% of student body enrolled in Pre AP/AP courses in 2015 compared to 17% in opening year (2011) 2013 graduates with advanced diploma: 54% 2014 graduates with advanced diploma: 62% 2015 graduates with advanced diploma: 68% 61 % of juniors and seniors enrolled in one or more AP classes for following school year (2015) Total suspensions reduced from 7.8% in 2011-2012 to 2.3% in 2014-2015 (even though population grew).</p>				
Academic core program development (using 2014-2015 data)				
<p>English: 28% Pre AP.; 20% AP courses; 90 total sections offered. <i>Note: 60% increase in Pre AP/AP enrollment since 2011.</i> Math: 14% Pre AP; 12% AP courses; 100 total sections offered. <i>Note: 20% of Alg 1 sections; 25% of Geometry; 22% Alg II are Pre AP.</i> Science: 21.6%; Pre AP. 10.8% AP; 102 total sections offered. <i>Note: 50% increase in Pre AP and AP enrollment since 2011.</i> Social Studies: 43% Pre AP; 45% AP courses; 108 total sections offered. <i>Note: Pre AP enrollment has always been steady 45% or higher since 2011.</i> ESOL: 85.71% of ESOL students increased Proficiency level on ACCESS test (compared 2013 to 2014 scores) <i>Note: only 3% showed decreased proficiency, and 19% were exited from program.</i></p>				
APS Program				
<p>Growth over time: 671 enrolled in 2012, 718 enrolled in 2013, 748 enrolled in 2014 <i>Note: AP Capstone will be offered in the Fall of 2015.</i></p>				
CTE Programs				
<p>Project Lead the Way (PLTW) Total students in PLTW program: 211 <i>Note: 46 out of 47 seniors finished all 4 core courses.</i> Building Trades 26 total participants with 12 earning OSHA 10 hour safety cards for industry (6 seniors). Culinary Arts (I/II) Total students enrolled in Culinary: 60 with 11 accepted to culinary school and 7 into 4-year college.</p>				

18 of 20 passed SERVsafe certification exam.				
Early Childhood Education (ECE)				
20 participants with 7 of 10 seniors earning dual enrollment credit at NVCC. All 10 certified with workplace readiness exam (spring 2015)				
Pass Rates for CTE programs				
Year	Pass	Advanced	Tested	Notes
2012	85 (91%)	71 (76%)	93	First year of testing at PHS.
2013	116 (89%)	104 (79%)	131	
2014	183 (89%)	150 (73%)	206	
Total (3 yr. total)	384 (89%)	325 (76%)	430	
Pass Rates for business courses				
Microsoft Office Certifications				
<i>2012 (98% pass rate/46 of 47); 2013 (87% pass rate/160 of 187); 2014 (94% pass rate/713 of 760)</i>				

CONCLUSION

The job of a planning principal, especially at the high school level, can become completely overwhelming, and dependent upon the system you work in, can increase in degree of difficulty as you move forward. Not only is the planning principal responsible for the staffing of the school, ordering of supplies and classroom furniture, and ensuring delivery of those items (all obvious), they are also responsible for setting the tone, leadership style, and atmosphere of the building. As the school's first principal, that person will leave an indelible mark on every future principal that follows; and as such, it is important to ensure that as many things get established from the beginning and implemented with fidelity, the more successful the school will be.

A planning principal must remember to keep priorities in order such as

- a. Ensuring fiscal responsibility with the allocated funds provided for the school's opening,
- b. Hiring qualified and talented individuals to fill key leadership roles within the building,
- c. Surrounding yourself with competent, and personable people, who can articulate to others what the vision of the school is and how it will be accomplished, and
- d. Outfitting classrooms with furniture, technology enhancements, and classroom instructional materials that promote student achievement.

If these basic tenets are observed, the job of the planning principal will be much easier, and far more effective.

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