



From Fixed to Flexible: Transforming a Traditional Classroom into a Dynamic Training Center

Renovating Existing Spaces to Foster Collaborative Environments

By Mira Korber

Just in time for this school year, Don Bosco Cristo Rey (DBCR) High School and Corporate Work Study Program of Takoma Park, Maryland, minted their brand-new university level Carlyle Computer Lab. In collaboration with designers at the technology, furniture, and ergonomics integration company SMARTdesks, DBCR leaders brought a brand new learning space to life, and one that promises to prepare students for college and the workplace.

The Cristo Rey (CR) High School and Corporate Work Study educational model is a national program serving financially disadvantaged youth. Each CR school across the United States partners with local businesses – including legal, financial, IT, and HR departments, to name a few – to offer low-income students the opportunity to gain a quality education alongside real-world work experience. Four students work on a team at each business, and the school handles their transportation to and from work one or two days per week, where they can apply what they have learned in class and learn from professional role models who have attended college.

DBCR Takoma Park opened in 2007 under the presidential leadership of Father Steve Shafran, SDB. The first high school class graduated in 2011 with a 100% college acceptance rate. Since

then, DBCR has been growing steadily, and for the 2014-2015 year, 400 students are enrolled. In the words of Father Steve, DBCR fills a critical gap in the education system for members of the school community, who come from upwards of 50 distinct zip codes. He said, "Here in Washington, there is a need in the metro Washington area, including the District of Columbia, and some areas of Maryland. We began in 2007 with the purpose of making sure that young people had complete access and success through college, despite where they happen to live. Their future should not be dictated by their zip code." As the school grew, Father Steve knew that to give DBCR students the edge they need to succeed, an advanced technology center was in order.

Opening a Collaborative Dialogue

In May 2014, Father Steve approached SMARTdesks about revamping an existing classroom space to develop a university and professional level computer center at DBCR. From the first conversation with SMARTdesks President Jeffrey Korber, it was clear that creativity was necessary to transform the small, standard classroom into a state-of-the-art learning center. The room in question was filled with fixed wraparound writing desks and lacked power and data management to facilitate flexible technology use. Mr. Korber, however, was confident that the room could be transformed into a first-class training facility.

According to Father Steve, the mission behind building a new computer lab was to enrich students' writing and critical thinking capabilities. As comprehensive education and economic self-sufficiency go hand-in-hand, Father Steve sought to improve his students' fluidity in technology and digital resources, skill sets invaluable in college and today's workplace.

Four months later, SMARTdesks met these technology needs by installing a new, more sophisticated interior environment known as the Carlyle Computer Lab. As Mr. Korber acknowledged, "The buildings that we use today generally do not fit the collaborative mode or the layout that includes wiring, moveable power, and flexibility. And the key word here I think is flexibility, because when I look at space, it's pretty much fixed. So, one of the things that I think is really important is: how do you take fixed space and make it flexible? That's essentially what Father Steve wanted to do."

And so the design process began.

All in the Details: Revitalizing an Existing Space

Historically, education has taken on a hierarchical structure reminiscent of mass production and vertical corporate structure, with the instructor at its pinnacle. In recent years, however, a movement has taken root to reorient education towards small group student interactions and problem-based, collaborative learning. DBCR's classroom renovation, with comprehensive cable management and ergonomic design, accommodates the increasingly popular teaching method of

student-to-student collaboration, as well as the more traditional "sage-on-the-stage" teaching values.

The design process for the Carlyle Computer Lab was a synergistic one. As the project evolved, SMARTdesks collaborated extensively with Father Steve, solving various spatial challenges along the way. DBCR is a grade 9-12 institution, and the blueprint of its rooms was designed for considerably smaller elementary school students. When the required number of students in the new computer center grew from 28 to 30, a linear desk layout provided the answer to meet capacity effectively. By virtue of this flexibility and capacity to hold not only small seminars but also larger lectures, the room accommodates teachers' changing needs on a day-to-day basis.

According to SMARTdesks Director of Design Michele McHenry, by placing the students along opposing walls and in a back-to-back linear desk configuration down the center of the room, each student has a direct view of at least one wall mounted monitor for presentation and training purposes. As the project evolved, she noted how "Father Steve became a partner in the design process to make this a highly effective design for the school." Ms. McHenry, Mr. Korber, and Father Steve met consistently over the course of the project, addressing issues from computer size to spacing of the power management outlets and monitor placement.

Locking casters on each table allow for reconfiguration of the space as needed for small group work or conference sessions. The linear desk setup is practical for daily use and allows the instructor to walk around the room and assist his or her students. The lectern/podium also provides clear sight lines to all of the students in the room and enables clear communication between teacher and learners. Additionally, with SMARTdesks' renovation, the room gained an ADA compliant entry ramp and railing and met stringent fire code standards.

DBCR's school is an old building – quite far, design-wise, from the advanced technology centers of today. As Mr. Korber reflected, "The speed of access to information has increased at exponential rates in the last twenty years, and that drives the need for the interior environment that gives the end-user access to equipment and to utilize its benefits. But at the same time, it presents architectural challenges." Bringing tidy and efficient cable management to the Carlyle Computer Lab presented said challenge, and SMARTdesks Furniture + Furniture Integration Technology (FFIT) elegantly provided a comprehensive solution. FFIT provides a raised access floor system that covered the existing floor, with strategically located outlets to power each workstation in the room. In addition, because the FFIT outlets are easily moveable, the outlets can be rearranged throughout the room if necessary.

Technology, Youth, and the Future

In the Carlyle Computer Lab, DBCR students gain a critical foundation and wide range of abilities that will make them leaders in their fields. Knowledge of data entry, HTML coding, writing technique, and software used in the professional world give them a leg up in the

professional world. Transformed from a traditional learning factory to dynamic multi-use space, DBCR's students now have resources at their fingertips to access information with the click of a mouse.

Conceived in the spirit of collaborative learning and youth empowerment, the Carlyle Computer Lab promises to offer an exciting opportunity for students interested in a wide array of industries. The collaboration between SMARTdesks and DBCR encapsulates the potential each student has to channel their resilience, intelligence, and confidence into productive work. In the words of Father Steve, "We're just at the threshold of that now, being able to expand our facility, and to have the Carlyle Computer Lab, enhanced by SMARTdesks and FFIT Floor which has made a tremendous impact on the design, making it safe, sound, accessible and forward-thinking. The state-of-the-art Carlyle Computer Lab will prove to be a great resource in preparing our young men and women for success in the workplace and through college, our ultimate goal."



Jeremy McDonald Faculty, Educational Technology Specialist

Teaching Powerpoint presentation content development to students at Don Bosco Cristo Rey (DBCR) High School and Corporate Work Study Program of Takoma Park, Maryland.



Students gather to work in flexible study groups.



SMARTdesks® installers assemble the furniture on site and install the FITT Floor®. Power and data outlets in the floor are located where the tables will be. The wiring is diagrammed according to plan. A fully engineered solution.



FITT Floor® carpeted panels are interchangeable, so outlets for power and data can be located and moved within the space. No special tools or electricians required for changes. UL Approved power connections, outlets and cables.

Data cables are routed to each user in the space under FFIT Floor® by SMARTdesks®. Installers label the cables for DBCR's IT integrator for installation into the server.





Original construction was for an elementary classroom. When the High School was implemented, tablet arm chairs and wall-mounted presentation technology were main features.





Laptops are stored in

flipIT Laptop Safe®. The patented design keeps lids lower than the screens for unobstructed sight lines in the classroom. Laptops are served with power and data connections in the flipITs®



Video monitors are mounted in the corners of the space. FITT Floor® adds acoustic damping, power and data to every user in the space. Features SMARTdesks® HorizonLine Laptop Tables® and MFI Series™ Instructor Podium.



SMARTdesks® MFI
Series™ Podium keeps
technology and instructor's
personal items organized.
SMARTdesks®
HorizonLine® Laptop
Tables feature flipIT Laptop
Safe®.