

Science Corner at Sabine Hall Science Building Richland College, Dallas County Community College District

WHAT DO WE WANT OUR LEARNERS TO *BECOME*?

Lifelong learners who possess:

- a growth mindset, who know that learning is learnable.
- critical curiosity with the energy and desire to figure things out.
- creativity with the ability to look at things in new and different ways.
- strategic awareness— pursue learning with a purpose.
- resilience— able to invite challenge and persist through difficulty.
- the ability to learn from others, with others, and alone.
- the ability to make meaning— make connections, find patterns, integrate ideas.

WHAT EXPERIENCES MAKE THAT *BECOMING* HAPPEN?

- Interacting with other learners— faculty, tutors, and peers— who make thinking visible.
- Formulating questions, learning from mistakes, and checking for understanding.
- Learning with others who display the dispositions of lifelong learners.
- Observing faculty commitment to students and their learning.

WHAT SPACES ENABLE THOSE EXPERIENCES?

- Spaces that allow for reconfiguration to serve current needs.
- Spaces that encourage a variety of visual communication methods.
- Spaces that enable transparent connections between faculty, students, and disciplines.
- Spaces that are “owned” by the students, that are not scheduled/controlled by the institution.



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HOW DO WE KNOW?

- Visual confirmation: the space is always full with students working, teaching, and learning.
- Engagement: students assembled in active, diligent learning teams with faculty mentors. 1483 visits were recorded in Fall 2010. 2617 visits were recorded in Fall 2012, a 57% increase!
- Results: improved retention and success rates. Fall 2012 data— the % of students who successfully completed a Biology, Chemistry, or Physics course with an A, B, or C grade was over 10% better for students who took advantage of tutoring. While 10.28 % of Biology, Chemistry, and Physics students who participated in science corner tutoring withdrew from class, 16.18 % of students who were not tutored withdrew.
- Inspiration: Faculty inspired to support students with a clear commitment to teaching. Many faculty from other disciplines witnessed the impact of the tutoring center in the new Science Building and developed similar open learning spaces for Economics, English for Speakers of Other Languages (ESOL), and English.
- Behavior: students are clearly committed to learning and inspired to support/mentor each other.



Sabine Hall Science Building Richland College

Background

Richland College of the Dallas (TX) County Community College District has a rich legacy of innovation and quality in education, sustainability, and design. “Teaching, learning, and community building” is the mission of Richland College.

Completed in 2009, Richland’s Sabine Hall is a layered learning environment with multiple elevated terraces overlooking a large collaboration atrium/gallery with instructional science art. The Science Corner is a carefully planned student mentoring hub surrounded by transparent faculty offices, adjacent to a room which stores physical models for students to touch and disassemble—to advance understanding of biological structures. In addition to many informal learning spaces, the building includes a coffee shop, meeting rooms, a bookstore, and an outside terrace with a green roof and a green wall that keep students engaged and learning.

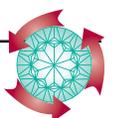
Planning Goals

- Technology-rich, all-in-one-lab /lecture/ discussion spaces for Chemistry, Biology, Physics, and Geosciences.
- Universal design to recognize the very diverse student population.
- A powerful expression of the campus’s commitment to sustainability (LEED platinum).
- Seamless fit into the very distinctive twenty-five year-old architectural vocabulary of the campus.
- Visual transparency throughout for natural light and for building connections between students and faculty. (95% of spaces illuminated with natural daylight.)
- Thoughtful layers of learning spaces in a variety of scales to promote serendipitous interaction and allow learning to continue outside the formal learning spaces.
- A student “mentoring suite” (modeled after the existing science corner) to ensure the carefully choreographed interactions with faculty that enhance performance and improve student retention.

The Science Corner aims to remove the sense of hierarchical space between students and faculty. The space encourages students to learn from and with others, an important experience that fosters the traits of lifelong learning. Faculty members have ample opportunities to observe students’ commitment to learning. This collegial environment inspires both students and faculty to pursue learning with resilience.

The Science Corner

The Science Corner places students in the center of a square with faculty offices on four sides. It is a carefully planned student mentoring hub surrounded by faculty offices. With office walls having transparent glass from 48 inches to the ceiling, unencumbered visual contact is provided between faculty members, the student study area, and the green roof terrace beyond. The space connects students and faculty in ways that multiply the impact of mentoring and peer-to-peer learning.



Lessons Learned

Several core aspects of the Sabine Hall facility encourage student use of the space and promote productive use:

- *Adequate furnishings for the user needs:* A good table surface with room for three to four students, laptops, bulky books, calculators, and comfortable rolling tables and chairs enables learners to work effectively together.
- *Numerous collaboration spaces:* The open atrium, the Science Corner, and other informal student lounge/study area spaces distributed throughout the building are heavily utilized in Sabine Hall.

Since the college is non-residential, students often return to the building in the evening to study and join together because of the quality of the spaces and their furnishings. The coffee shop in the atrium and a nearby restaurant provide enough food and refreshments to keep the building populated late into the evening.

- *Open space:* Students experience walls and doors as barriers. If there are walls and doors around informal learning spaces, students perceive that the space belongs to someone else (professor, tutor, etc.) and not them.

The most important lessons learned that shaped the planning of the building—in particular the Science Corner—surfaced in a continuous review of the learning experience of our students, coming to a deeper understanding of how learning happens at Richland and why space matters as a part of the planning process.

We learned that the college-wide tutoring offered in another building was not utilized by science students. When tutoring was made available in the building where they attended classes and encountered science faculty, students quickly embraced the learning opportunities provided. When we designed the new science building, we knew that a Science Corner needed to be central to the learning environment.

We also learned our students often apologized for interrupting faculty when they visit their offices, but are open to learning when professors meet them in their “own” spaces. The intent of the space that became the Science Corner was to remove the sense of hierarchical space between the students and the faculty. In lieu of spending five “underutilized” hours each week in their offices waiting for students to walk through their doors, faculty can join students and tutors in this informal space, anticipating or following-up on discussions during a regular class/lab period.

Finally, we learned that when students realize they can “own” the space, they move the furniture in ways that accommodate their needs at a particular time. This was a lesson that furnishings needed to be sturdy, mobile, flexible, and user-friendly.

Assessment Evidence

	Tutoring	No Tutoring	% Diff
SUBJECT	A,B,C	A,B,C	
BIOL	83.73%	69.39%	14.34%
CHEM	76.95%	68.46%	8.49%
PHYS	80.45%	74.53%	5.92%
TOTAL	80.11%	70.05%	10.06%

	Tutoring	No Tutoring	% Diff
MALE/ FEMALE	A,B,C	A,B,C	
Male	78.70%	68.83%	9.87%
Female	81.30%	70.91%	10.39%
TOTAL	80.11%	70.05%	10.06%

Architect: Perkins+Will
Photos courtesy of: Perkins+Will
Location: Dallas, Texas
Net/gross square footage: 56,800 nsf / 113,636 gsf
Cost: \$34 Million
Construction period: Fall 2007-Spring 2009
Date completed: April 2009
Disciplines housed: Biology, Chemistry, Physics and Geosciences

