



What makes a good learning space?

Does building design affect student achievement?

Most people agree that a good teacher is essential to learning. But what about the space where that teacher teaches? Research suggests that the quality of school facilities impacts academic performance. A school's physical condition, age, configuration of space and quality of building systems from heating and cooling to plumbing and electrical can have an impact on academic performance:

- ▶ A study of Texas high schools showed that students in schools rated in the best condition performed significantly better on standardized tests than students in schools in the worst condition. In addition, the graduation rate at schools rated oldest or in worst condition was 4 percent lower than those rated newest or in best condition. (2008, UT/Austin)
- ▶ A South Carolina study found the adequacy of the school facility affected teacher attitudes, recruitment and retention, student behavior, and parent and community attitudes and support. (2001, South Carolina Oversight Committee)
- ▶ Students attended less days on average and scored lower on standardized tests in New York City schools with poor facilities. (2008, Journal of Environmental Psychology)

What is the condition and design of PPS buildings?

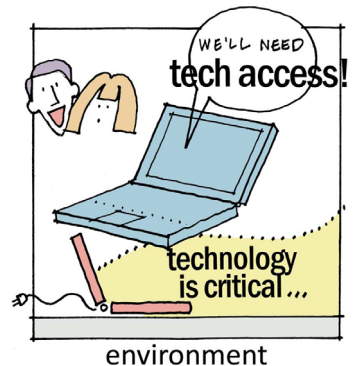
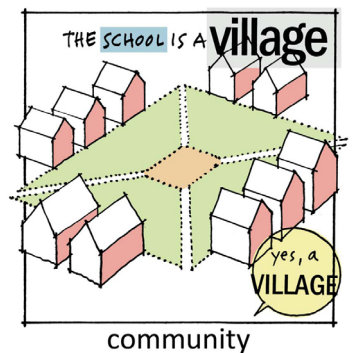
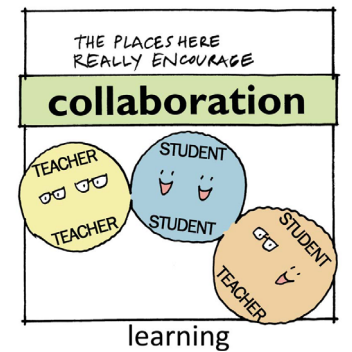
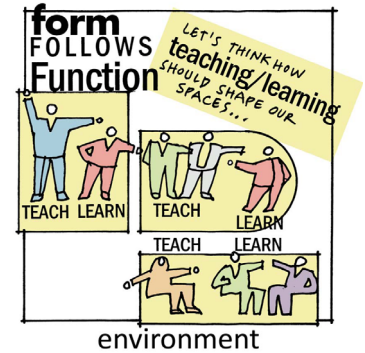
Most Portland Public Schools' buildings were built before World War II and feature similar-size classrooms holding around 30 students each. The design reflects the thinking at that time that all students learn the same thing at the same time and in the same way. Long corridors lacking open space and public gathering areas support an outdated, regimented approach to learning.

The experience in PPS schools:

- ▶ A lack of classroom variety – from large lecture halls to standard classrooms to smaller break-out spaces – limits creativity and efficiency in staffing and project work.
- ▶ Multiple entrances and no electronic security systems hamper the ability of staff to monitor who is coming into and out of many schools.
- ▶ A lack of electrical outlets and capacity limit the kind and amount of technology that students and teachers can use and the efficiency with which computers and other technology run.
- ▶ Many labs and classrooms lack sinks or appropriate storage space for classroom projects and materials.
- ▶ Classrooms are often too hot or too cold. Some lack sufficient natural light or ventilation. Many are cramped for space. In addition, some schools lack a welcoming main entrance and feature grounds dominated by concrete.

What teachers envision:

PPS asked 70 teachers to identify design elements that serve learning. Here is what they said:



Elements of a 21st century school

Today's global economy demands highly sophisticated skills with graduates who can analyze, evaluate and compute in addition to communicate, create, innovate and work both independently and collaboratively.

In addition, scientists now understand that students learn in different ways – from those who learn by doing to those who need repetition or a visual image to learn a concept.

Teaching approaches and academic standards have evolved over time to meet the more complex demands of the 21 century workplace. School building design can mirror these new conditions by allowing for:

Collaboration: Smaller break-out rooms with windows where teachers can collaborate or discuss students' needs, meet with students privately or in small groups or send students for independent study or project work yet still monitor them.

Community: Spaces where parent volunteers or community partners can gather, tutor students, complete projects for teachers or hold a community event.

Flexibility: Large spaces for large-group learning as well as ways to break up rooms into smaller spaces for project-based work.

Technology: Electrical systems and room configurations that support the use of various technologies from laptop and desktop computers to video conferencing with another school or a workplace across town or around the world.

Next steps

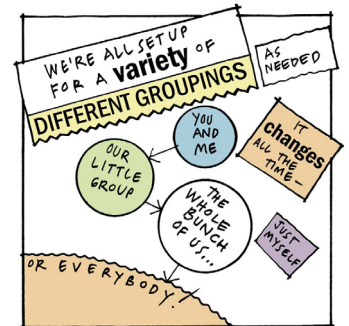
A PPS citizen's advisory group recommended to the school board in April that the Portland community engage in a series of construction bonds over many years to upgrade our school buildings. The school district is considering that recommendation.

Get involved

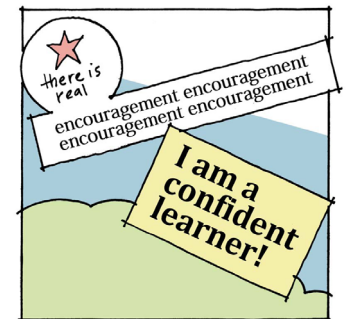
Join the conversation. Community meetings are May 22, 23 and 24 at Roosevelt, Madison and Lincoln high schools, respectively, from 5 p.m. to 8 p.m. You can also share your opinion through an online survey at www.pps.net or email to schoolmodernization@pps.net. For more information, visit www.bit.ly/PPSBuildLearn or call the PPS Office of School Modernization at 503-916-3817.



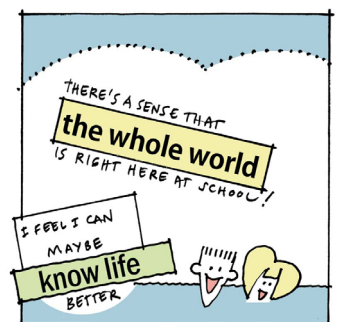
environment



environment



culture



learning



culture