

What is Effective School Design?

The physical design of a school communicates messages about the purpose and nature of education. In the past, schools were designed to support the delivery of rote, standardized instruction. Today, however, the goal is for students to become critical thinkers, problem solvers, and meaning makers. Effective school designs reflect this change in educational philosophies and goals. For example, they include flexible, learner-centred spaces that encourage active, cooperative, and community-based approaches to teaching and learning.

Research on school design increasingly shows that students' learning environments can have both positive and negative effects on their social behaviours, engagement, well-being, and academic achievement. The following specific school design elements are correlated with positive student behaviours and attitudes, as well as enhanced achievement:

Positive social behaviours

- small school size
- wide, clearly defined “pathways” (rather than locker-lined corridors) connecting learning spaces and facilitating the movement of all students, including those with special visual or physical needs

Engagement

- inviting outdoor spaces, including trees, gardens, learning and gathering spaces, and connecting walkways
- a welcoming entry, signaling the school's function as a community space and reflecting the local culture
- aesthetically appealing interiors, with inviting colours and textures
- dedicated spaces for displaying student work and storing materials
- inviting public areas and meeting areas of various sizes that support collaboration and informal learning

Well-being

- a quiet location away from busy streets and traffic noise
- natural lighting from windows and skylights, complemented by artificial (glare-free, adjustable, full-spectrum) lighting
- good indoor air quality, with adequate ventilation and a comfortable temperature
- good acoustics, with sound buffering between classrooms

Academic achievement

- small but uncrowded classrooms that can be easily reconfigured for different teaching methods and learning experiences
- private study spaces, both in and out of the classroom
- an integrated technological infrastructure that includes a wireless network, support for mobile devices, and shared (and preferably also mobile) projection screens
- teacher workspaces for research, meetings, and collaborative work

Effective school designs create safe, innovative learning environments that motivate students, support teaching and learning, and provide a centre for community activities. Experts agree that the most effective and innovative school designs emerge from a careful consideration of both educational goals and local needs. They also concur that effective school design is participatory and inclusive, involving a collaboration among architects, engineers, school administrators, teachers, learners, and the larger community.

For online resources as well as the research references that inform this issue, please visit:
www.cea-ace.ca/facts-on-education

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