Education Specifications

Learning is Inspiring

Engage students with sensory-rich environments

Colors, natural and artificial lighting, materials and student work form much of the sensory education that underlie the learning environment. Brain research tells us that the senses are the gateway to the mind, and through them, students develop intellect, build memories, and make meaning. The research also says that students retain, retrieve, and learn best within environments that are sensually rich. Engaging the built environment through the senses has a profound impact on a person's psychological and physiological well-being. Given the impact on mood and behavior, the built environment will either enhance or impair the learning environment. Consider the bland and chaotic sensory environments of schools past with their locker-lined corridors, fluorescent lighting, shade-drawn classrooms, harsh cafeterias, and concrete schoolyards. Over– and under-stimulating spaces make for poor learning environments.

At that same time, spaces that are intentionally designed to balance these stimuli are shown to reduce students' stress, improve their attention span and ability to focus, alter their perception of time, and reduce both absenteeism and vandalism. Expanding design thinking beyond sight and sound creates a healthy learning environment when it includes the feel, smells and tastes of life, too.

Children need to be inspired by their environment

How do we inspire students with color?

Brain research also indicates the brain develops through patterns and relationships. For example, seeing contrasts between colors is vital, such as contrasts between light and dark, saturated and muted, or warm and cool. Color also has the power to enhance mood and compliment particular activities. In spaces that are used for focused work, rest, and contemplation, colors that are cool and soothing enhance feelings of calmness and repose. Colors that are warm and bright stimulate activity, so they are best suited for play, fitness, and other energetic space utilization. Colors also communicate what activities are appropriate. Color can improve way-finding as well as demarcate territories, such as giving each learning suite a unique, personalized identity. Consider how the culture of the community, site, and climate influence color, and remember that color preferences change for different student ages.

How do we inspire students with natural and artificial lighting?

Consider natural light and the detrimental and positive effects it has on a space. Views of the outside world provide bright colors and full-spectrum lighting; yet glare ensures that blinds will stay closed, no matter how beautiful the views. As much as they need light, students also need darkness and shadow. Natural light is neither consistent nor entirely predictable, and alone, it cannot satisfy the needs of the learning environment. Artificial lighting is critical. Artificial lighting provides a range of qualities depending on light source, whether it is concentrated or diffused, temperature and shadows. Because every student learns differently, what qualities of artificial lighting are needed for the learning environment?

How do we inspire students with material?

Materials stimulate the senses in a variety of ways with finishes that range from smooth to rough, soft to hard, wet to dry, and transparent to opaque. Some materials are even fragrant; consider the range of smells between leather, mahogany and steel. They provide a number of ways for learning about the world. Some materials weather and change over time while others, like glass, maintain a more permanent state. We experience conductance through touch; at the same temperature, steel feels colder than wood. Students learn how light and sounds behave through the patterns of different materials. Hard materials are louder, and glossy materials reflect more light. When a student knocks on a surface, what sound does it make?

How do we inspire students with the display of their work?

Making 2D, 3D and digital artifacts is not only a form of thinking and communicating with others, it is a means of self-expression; for some it is their preferred way of working. Displaying student work adds color, and it enables students to track progress and personalize their environment. Students learn that there are multiple points of view. They learn to critique their own work, critique the work of their peers, accept criticism in return and ultimately develop internally-driven measures for success. Display teaches students that their work matters to others, particularly with caring adults. Perhaps more important, the elementary years have a profound impact on students' identity and their relationship to creativity. Ask a first grader, "Are you an artist?" Most if not all say yes. Ask them again in five years, and all but a few say no. How do you engender a learning environment where every student learns the language of design?