

# **The Impact of Classroom Design on Educational Outcomes**

by Kathleen Karlsen

Educators are always looking for ways to improve educational outcomes for their students. One often-overlooked area is the impact of classroom design. Children have heightened sensibilities and take in classroom design details that adults may miss. For examples, sharp angles are a source of tension and should be softened wherever possible for children's environments. Curves are more relaxing for both furniture and the patterns in wall hangings, rugs and other aspects of classroom design.

Murals and artwork depicting nature work well for classroom design. However, many educators are unaware of the fact that these images have a greater positive effect when a distant perspective versus a close-up view is depicted. Another key in classroom design is to place warm and cool colors next to each other to create a "shimmer" which relieves stress and eyestrain. This is one of the principles employed in Impressionistic art, the most popular style of fine art for well over a century.

Cartoons characters and distorted, humorous images in art have often been used for daycare facilities and classroom design for young children. Researchers have found that oversized cartoons can actually be frightening to children. Artwork done by children, pleasant scenes of play or serene images of nature images are much more appropriate.

In addition, classrooms are often cluttered with a wide variety of images. This can be disorienting and distracting for children. Rather than covering the wall with all kinds of posters and other visual images, consider using different textures or colors on the walls themselves to increase a sense of spaciousness.

Likewise, instead of posting a list of rules or standards, older children may respond well if the values of the school or classroom are encapsulated and displayed in a symbolic way such as that exemplified by the heraldic banners, flags, shields and crests of the traditional trades and royal houses. Understanding the significance of the classroom's flag or shield introduces the concept of symbolism. Learning that specific images can stand for intangibles can be a lesson in itself for the children.

Extensive research has been done on the topic of color in interior environments. For classroom, the often-used primary colors of red and yellow can be overly stimulating. Red actually lengthens the perception of the passage of time, something that is probably not desirable in classroom design! In addition, psychological studies of children and color (Alschuler and Hattwick) indicate that yellow can be problematic and is associated with infantile traits and dependence on grown-ups. Also try to avoid avocado, yellow-green, purple and chartreuse in classroom design as these colors and their after-images make people appear sickly.

Instead, try green and natural, earth colors to reduce muscular and nervous tension, support mental concentration and overcome glare. Cooler colors such as green and blue are appropriate for areas in classroom design in which reflection, meditation or "passive" learning is to occur. Warmer colors such as peach, pink and light yellow are appropriate for areas in classroom design

in which active "kinesthetic" learning, recreation or artistic activities take place. Older children may prefer more sophisticated colors such as violet or sage. Areas with long, harsh winters can counter depression by using spring colors (medium yellow, light pink, light blue and light green) prominently in classroom design.

Finally, lighting considerations can be crucial in classroom design. Ideally, light levels should be varied cyclically (i.e. with the rhythms of the day) to relieve monotony, activate cortical responses and avoid emotional rejection of the environment. Moderate variations versus strong variations within a single field of view will provide the greatest level of comfort. This can be accomplished by placing lamps around the room that are on for part, but not all of the day.

By following the principles outlined above related to appropriate classroom design including images, colors and lighting, not only can classroom learning outcomes improve, but teachers can expect to experience greater cooperation from more comfortable and happier students.

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