



## Creating Educational Spaces Using Evidence-Based Design



**Evidence-based design** (EBD) has been around for years in the healthcare industry. It is a technique used in the process of designing spaces people typically go to feel better. However, when EBD is applied in areas not commonly known for their treatments or furnishings, the effects are just as apparent. In fact, we've got the test scores to prove it.

Though a school building is not the place most people come to heal, there are ways to create an educational space that will make it feel as such. Education, health, and satisfaction improve **significantly** when using the design techniques research has given us.

EBD's place in education started in 1999 with the **Daylighting in Schools** study. This research involved 2,000 classrooms across school districts in three states, and measured the math and reading scores of some 21,000 students<sup>1</sup>. It found that **natural light sources** in classrooms had a positive effect on the students' scores. The research doesn't stop there, though – there is a “growing collection of information linking colors with child behavior; classroom layouts

with effective teaching; and finish materials with safety<sup>1</sup>.” Since different colors affect our mood, keeping them controlled in a classroom setting is especially vital. For example, this can be done by creating blue and red areas to distinguish between low and high-energy spaces. This goes hand in hand with creating effective, **fluid layouts**, since students only hear 75% of what is said in the average classroom<sup>2</sup>. Having versatile workspaces makes it easier for students to learn, study, and interact in the manner that **works best for them**. Even room temperature and air quality can have adverse effects on students, as poor air quality or being too hot or cold in the classroom can lead to lower scores.

From “student and teacher performance, absenteeism and health, operational issues and approaches to reducing energy costs and water consumption, [EBD] covers so much more than **creating environments in which students thrive**,” says Daniel R. Mader, AIA, CEFM, LEED-AP<sup>2</sup>. Evidence-based design has a wide variety of applications, and the scope of its impact continues to grow as the industry adopts it across new platforms.

1: Architecture 3.0: The Disruptive Design Practice Handbook, “Nourishing disruption through evidence based design” <https://books.google.com/books?id=KV5KAgAAQBAJ>

2: “Evidence-Based Design Influences Interior Design” by Ellen Kollie <https://webspm.com/Articles/2013/07/01/Evidence-Based-Design.aspx>



# Putting it all together



**NATURAL  
LIGHT**

**ACQUSTIC  
CEILING  
TILES**

**DISPLAY  
AREAS**

**CLIMATE  
CONTROL**

**VARIED  
FLOORPLAN**

**SOOTHING  
COLORS**

**FLEXIBLE  
DESKS**

**LISTENING  
AREA**