

# Enriched Environments to Support Social and Emotional Learning: A Visual Design Guide

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## EXECUTIVE SUMMARY

Over the past year and half, we've investigated how to improve the well-being of schoolchildren through the intersection of social and emotional learning (SEL) and the built environment. The culmination of our research project is a visual design guide — a library of evidence-based design (EBD) strategies formatted as a tool for designers of learning environments to quickly reference during the design process. Whether the intention is to create an enriched environment, understand the impact design strategies have on students and teachers, or both - the EBD strategy cards are a tool to utilize to create enriched environments that support social and emotional learning.

The design of physical space can be used as a tool to support or augment existing pedagogical practices in classrooms, advancing the agenda to provide students with competencies in social and emotional learning (SEL) by stimulating diverse affordances (sensory, cognitive, motor, and social) within their learning environments. Being intentional through design can help SEL goals for the environment be realized. A good school building has spaces for

both learning and working and should include a multitude of spaces. A few of the recommendations we pose in our design guide are to institute:

- **Variety**, where students have autonomy and choice for multimodal learning.
- Opportunities for **privacy, movement, and sensory control** for comfort.
- **Support** for the whole person, where health and well-being are prioritized.
- **Localization**, where history, culture, nature, and the relationship between them is emphasized.

## KEY HIGHLIGHTS

- From focus work to prepare lessons, collaborative work to plan with peer teachers, to direct instruction with students - teachers engage in a variety of work modes and utilize multiple tools to effectively do their job.
- Teachers expressed the importance of having a variety of psychological needs met within their working spaces and their students' learning spaces.

- The design of physical space can be used as a tool to provide students with competencies in SEL by stimulating diverse affordances (sensory, cognitive, motor, and social) within their learning environments.
- Designers can use the visual design guide as a quick reference to evidence-based design strategies during the design process to create enriched environments that support SEL.

## ENRICHED ENVIRONMENTS TO SUPPORT SOCIAL AND EMOTIONAL LEARNING: A VISUAL DESIGN GUIDE

### BACKGROUND

Social and emotional learning (SEL) is an approach to education that emphasizes the whole student and five competencies in self-awareness, self-management, responsible decision-making, relationship skills, and social awareness to help children gain skills outside of typical school subjects like math, reading, and comprehension. This approach helps children and adolescents understand and regulate their feelings, communicate with and relate to others, build strong

relationships, and make empathetic decisions.

SEL supports the social and emotional wellness of students and teachers and is taught and integrated into classrooms with formal and informal strategies.

Physical aspects of the school environment can be used as a tool to support instruction and positively impact outcomes associated with the whole student. Stimuli within the physical learning environment send cues about what students could do and should do, influencing the behaviors and learning processes that happen within these spaces. Just as intentional pedagogical approaches can enhance student social and emotional competencies, the design of learning spaces can offset challenges associated with health and well-being.

This research provides an approach to the designing of learning spaces (enriched environments) to positively improve outcomes (social and emotional learning). Enriched Environments is a neuro-science informed framework that describes how designed artifacts in an environment that stimulate motor, social, cognitive, and sensory stimuli can improve brain health across the lifespan. The design of physical space can be used as a tool to support or augment existing pedagogical practices in classrooms - advancing the agenda to provide students with competencies in SEL by stimulating diverse affordances (sensory, cognitive, motor, and social) within their learning environments.



We developed this design guide with the goal to provide evidence-based interior design strategies for school settings that are associated with enhancing SEL. The visual design guide is a library of evidence-based design (EBD) strategies formatted as a tool for designers of learning environments to quickly reference during the design process. It provides a research-informed framework to create spaces that augment and support social and emotional learning. This guide is intended for stakeholders to use—whether creating an enriched environment, understanding the impact design strategies have on students and teachers, or both—as they move throughout the design process, and when they are documenting design intent. The guide, in the form of EBD strategy cards, are a tool to utilize to create enriched environments that support social and emotional learning. Those who use this guide are instructed to print out cards, fold them in half, while referencing the comprehensive evidence to provide rationale for design decisions.

## METHODOLOGY

In creating this visual design guide, we conducted a comprehensive literature review and in-depth interviews with primary, middle, and high school teachers. The purpose of the comprehensive literature review is to provide designers with scientific literature on aspects of spatial design that are associated with student and teacher outcomes. We found very few

studies investigating spatial design that directly address teacher outcomes. We therefore expanded our search to include workplace studies that can be extrapolated to teacher working environments.

- 143 articles, white papers, and books were initially sourced, resulting in 18 evidence-based strategies supported by 102 empirical research studies that have demonstrated outcomes associated with teachers and learners.

We then held interviews with schoolteachers who participated in 1-hour semi-structured virtual interviews where they elaborated on how they define social and emotional learning, their ideal working environment, and their perceptions of the current school environment regarding SEL. An open, multistep, inductive coding analysis protocol was utilized to generate themes from the data.

We organized the literature according to the evidence-based design (EBD) strategy, stimulus, and outcome to create the visual design guide and cards and added supporting comments from the teacher interviews. Each card includes the EBD strategy, space typology, scale on the design continuum, stimulus from the Enriched Environments framework, SEL outcome, a comprehensive bibliography of empirical research studies with outcomes related to students and teachers, and insights from in-depth teacher interviews as additional considerations for the EBD strategy.

## RESEARCH BIO

The research was completed by a coalition of HKS, Uplift Education, and the Center for Advanced Design Research and Evaluation (CADRE), a non-profit focused on the societal impact of the built environment, that received a research grant from the American Society of Interior Designers Foundation.

