6th GLOBAL CONFERENCE ON CHILDREN AND YOUTH

12 - 14 December 2025 Cambridge, United Kingdom

Reframing Equity Through Open Spatial Education: A Scalable Learning Model Rooted in Architecture and Museum Pedagogy

Weiting Lin

Founder, SiSi Learn by Space, Taiwan

Abstract

This study introduces a design-based research project leveraging open educational resources (OER) to address spatial learning disparities in Taiwan's early and primary education. Rooted in principles of adaptability, accessibility, and scalability, the curriculum translates complex architectural and museum concepts from Taichung's "Green Museum and Library" into hands-on, age-appropriate learning modules. The methodology involves iterative design, implementation, observation, and refinement, with continuous feedback from on-site observations and student work analysis in kindergarten and elementary settings. Key design features include multi-level difficulty tasks ensuring universal participation, Creative Commons BY-NC licensing for digital, low-cost, reproducible materials, and a modular structure with comprehensive support for non-specialist educators, facilitating interdisciplinary teaching.

Findings indicate that the materials' adaptability allows for varied content depth and stimulates student creativity, fostering a more personalized learning experience. Their accessibility effectively overcomes regional resource disparities and significantly reduces teacher preparation burden, promoting wider adoption. Furthermore, the modularity and scalability foster active learning, critical problem-solving skills, and a deeper interdisciplinary understanding of public space issues. This transforms students from passive knowledge receivers into active spatial thinkers and future citymakers, cultivating enhanced civic awareness. This project aligns with UNESCO's OER recommendations and SDG 4, promoting educational equity and sustainable development goals.

Keywords: Educational Equity, Open-Source Materials, Architectural Education, Museum, Diversity and Inclusion