

Designing Outdoor Learning Environments that Support Educator Wellness and Success

Project Team

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Project Abstract

The impacts of COVID 19 have shed light on the necessity for the provision of different types of living, learning, and working environments and, specifically, outdoor spaces. A large body of research explores the restorative effects of nature and outdoor spaces in general, yet effective outdoor learning environments (OLEs) are rarely researched. Further, even fewer research projects explore educator wellness and success when teaching in OLEs. With an understanding that educator wellness impacts student success, this project aims to study the effects that OLEs have on educator engagement, wellness, and ability to relay source material in elementary school settings (K-5). This research will also explore the intersection of pedagogy and design through engagement with Bridging Organizational Learning and Design (BOLD), a DLR Group initiative, to identify the potential barriers for OLEs and make suggestions, both design and pedagogical, for effective implementation and use.

This study will work with mixed methods of research including a literature review, case studies of existing OLEs studying design and current use, and interviews with educators and other professionals. The outcomes from the literature review, case studies, and interviews will be collected and synthesized to create a proposal for design guidelines for OLEs that promote educator wellness and engagement, as well as suggestions for how the design can support existing educational pedagogy to create useful and impactful outdoor learning environments.

Statement of Interest:

During the lockdown and isolation of the COVID 19 pandemic, the ability to go outside became a crucial necessity for my mental, physical, and emotional health. I also noticed that the quality of my schoolwork improved when I had access to an outdoor space or when I had the ability to work in a space with views to nature. The benefits that this connection with nature afforded, sparked my initial interest in OLEs. From a design perspective, I became interested in studying how the design of outdoor spaces for learning were being used and to what degree they impacted learning and development. I believe that having access to nature and natural settings will become a more central focus for society in the upcoming years.

I also believe that prioritizing educator wellness as the main users of an educational environment, will create a chain reaction for positive and beneficial educational instruction. If the instructor is provided the tools and spaces to teach more effectively, then the students would benefit from this. I particularly have an interest in the K-5 elementary school setting because of increased educator stress when dealing with younger children, as well as the ability to positively impact children throughout their formative years. Though I am studying elementary education, I believe this research can create transferrable guidelines and benefits for education at all levels.

Research Proposal:

DLR Group seeks to investigate definitions and dimensions of inclusive design in K-12 education sector. This research project will seek to expand these dimensions in regard to the design of outdoor learning environments, their impacts on educator wellness, and educators' ability to relay educational content in a K-5 elementary setting. Literature review and analysis will be conducted on the restorative effects of nature on teacher stress, its effects on the ability to connect with students, the design of outdoor spaces for supporting wholesome teaching environments, and the barriers and opportunities for effective implementation of OLEs in the educational pedagogy. To supplement the literature review, at least three case studies on existing DLR Group projects, or projects recommended by advisors, will be conducted. These case studies aim to explore how existing design is lending to use and effective education in OLEs. This research will be furthered reinforced or challenged by speaking to and interviewing K-5 educators, as well as, OLE design experts. The results and findings of the literature review, case studies, and interviews will be synthesized and combined into categories, guidelines for implementation, and suggestions for design. The resulting study will end in a proposal for design guidelines for integrated teams to employ effective interventions in OLEs, as well as, training materials for BOLD to incorporate OLEs into pedagogy, in support of teacher wellness and engagement.

Questions:

1. How do educators cope with stress caused by teaching and in what ways can being in nature or natural settings impact this?
2. What are the impacts of OLEs on educator mental, emotional, and physical wellbeing?
3. Does the provision of OLEs have an impact on educator engagement and practices?
4. What are the barriers to large scale implementation of OLEs?
5. How can we ensure that OLEs will be regularly implemented as viable options for learning spaces?
6. How can we design effective OLEs to support educator wellness and engagement?
7. What are opportunities to support existing pedagogy with OLE design to ensure effective use of learning spaces?

Research Methods:

This research project will be conducted using three sequential research methods:

1. Literature Review
 - The literature review will provide background for the existing research related to the topic as well as, identify the gaps that the subsequent research may be able to respond to or expand upon.
2. Case Studies
 - Three existing OLEs, of current DLR Group projects or recommended by advisors, will be studied for design, use, and engagement

3. Qualitative Interviews

- A series of interviews, targeting 10 educators and design experts or until data saturation is reached, will be conducted using UserTesting platform.
- UserTesting includes video, transcripts, and keyword coding tools
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Project Breakdown

Dates: September 29, 2021 – June 10, 2022

Hours: This project will take a minimum of 24 hours per week for completion

- 15 hrs/week at DLR Group
- 9 hrs/week at the University of Washington

Deliverables (Proposed):

-Literature Review

-Case Studies: Review of existing OLEs and examining design and effectiveness for enhancing teacher wellness and success

-Interview Scripts: Sets of semi-structured interview scripts for the various interview audiences i.e., educators or design experts

-Synthesis: Collected analysis of literature review, case studies, and interviews to succinct categories and design proposals

-Proposal for design guidelines for integrated teams to employ effective interventions in OLEs, as well as, training materials for BOLD to incorporate OLEs into pedagogy, in support of teacher wellness and engagement.