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## Developing and Piloting a Design Guide for Outdoor Classrooms in Utah

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## **Developing and Piloting a Design Guide for Outdoor Classrooms in Utah**

*Derek Jenson, Jake Powell, David T. Anderson, and Rose Judd-Murray*

### **Abstract**

*The outdoor classroom design guide can help applicants successfully apply for the Utah Outdoor Classroom Grant introduced by the Office of Outdoor Recreation (OOR) in 2021. The design guide includes case studies, design resources, and critical information for community involvement from statewide locations and will serve as a free public resource.*

### **Introduction**

Studies nationwide suggest that the use of outdoor classrooms benefit students in traditional academic subjects such as language arts, math, science, and social studies. Furthermore, studies have shown that critical thinking and interpersonal skills are better acquired in outdoor learning settings than in traditional classrooms (Kuo et al., 2018; Meighan & Rubenstein, 2018). Teachers who use outdoor classrooms also report increased enthusiasm and commitment from students, better relationships with students and colleagues, utilization of more diverse and innovative teaching strategies, and the ability to include interdisciplinary material into their classes (Meighan & Rubenstein, 2018). In 2021, the Utah Office of Outdoor Recreation (OOR) established the Utah Outdoor Classroom Grant as a pilot project to encourage growth in the number and geographic distribution of outdoor classrooms in the state (State of Utah, 2022). The grant provides up to \$150,000 a year in matching funds for the construction of permanent outdoor classroom infrastructure across the state. Individual applicants can qualify for matching funds of up to \$10,000, depending on the scope of their project.

One requirement for the application is to submit a site plan for the proposed outdoor classroom space. However, based on input from the Utah OOR, many interested applicants have little or no experience with landscape design and struggle to understand how to create a successful outdoor classroom site plan for their grant application. While there are several existing design guides for outdoor classrooms, they are not specific to Utah, and several contain irrelevant information that may be confusing for the purposes of the OOR grant application (Pounders, 2006; Danks, 2010; Nelson, 2015; Moore, 2014; Bucklin-Sporer & Pringle, 2010; Johnson et al., 2008).

### **Response**

At the request of the Utah OOR, Utah State University (USU) Extension Landscape Architecture and Environmental Planning (LAEP) program created a Utah-specific outdoor classroom design guide that was (a) simple enough for beginner-level, non-designers to follow, and (b) detailed enough to help produce high-quality outdoor classroom design proposals. In 2021, LAEP Extension faculty spent one year reviewing existing outdoor classroom design guides, conducting case studies on five outdoor classroom locations in Utah, and gathering feedback from grant applicants to improve the final design guide. During 2021, Greenwood Charter School reached out to USU Extension's LAEP program requesting help creating a new outdoor classroom master plan for a part of their schoolyard called "The Back Seven." This presented an

opportunity to apply the design guide to a project in development to test the guide’s validity and improve the outdoor classroom design process. To help test the guide, a teacher at Greenwood created a 7th-8th grade landscape design class in the fall of 2021 (see Figure 1). The class curriculum was then developed based on the processes outlined in the first edition of the Utah Outdoor Classroom Grant Design Guide document and incorporated public participation with the local community.

*Figure 1: Greenwood Students Involved in the Conceptual Design Process for The Back Seven*



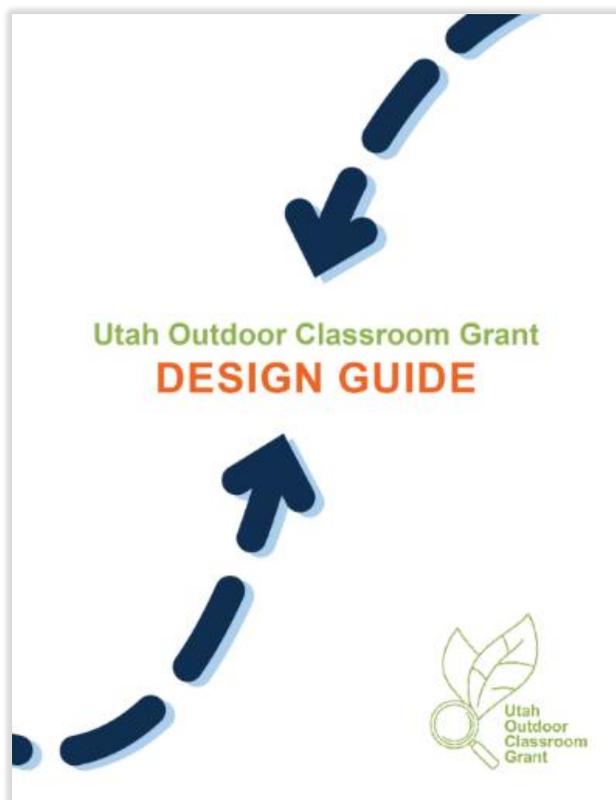
### Target Audience

The design guide targets applicants of the Utah Outdoor Classroom Grant. Based on applications from the initial funding cycle in 2021, the majority of applicants are teachers interested in expanding outdoor classroom possibilities and non-profit staff interested in constructing outdoor classrooms on their properties. This audience is not typically trained in the process of design, making the grant requirement of a site plan design an intimidating barrier to a successful application. As demonstrated by the work with Greenwood Charter School, the design guide can also be used as a framework for 7<sup>th</sup>-12<sup>th</sup> grade introductory landscape design classes or anyone interested in designing an outdoor classroom.

## Outcomes and Impact

The design guide produced by this project is a digitally interactive, 50-page workbook called the Utah Outdoor Classroom Grant Design Guide (see Figure 2). A copy of the design guide is [available digitally](#) on the OOR's Utah Outdoor Classroom Grant website. It is publicly available to grant applicants to assist with developing the site plans required for the Outdoor Classroom Grant application. Of the 36 applicants that applied for funding in the 2021 grant cycle, 12 responded to a follow-up survey requesting feedback on the first edition of the Utah Outdoor Classroom Grant Design Guide. Of the 12 respondents, 8 reported using the design guide to develop their grant proposals. When asked how helpful the guide was in creating a site plan for the grant, 50% of those who reported using the guide responded that it was "very helpful" with another 38% reporting it was "somewhat helpful" or "helpful". Four (4) respondents who did not use the guideline reported they either had another person develop the design ( $n = 2$ ), had a design already completed ( $n = 1$ ) or reported not knowing it was available to them ( $n = 1$ ).

*Figure 2: Utah Outdoor Classroom Grant Design Guide Cover*



For the 2022 grant cycle, the guide was introduced to over 40 grant applicants around the state in a pre-proposal virtual workshop hosted by the OOR in January of 2022. The Utah OOR received 10 Outdoor Classroom Grant applications during the 2022 grant cycle. This is down from the grant's inaugural year which had 36 applications. However, in 2022, all 10 of the proposals were awarded funding.

The design guide developed through this project became the curriculum guide for a student-led schematic landscape plan produced for Greenwood Charter School's "The Back Seven". Sixteen 7<sup>th</sup>-8<sup>th</sup> grade students from Greenwood Charter School participated in a landscape design class and learned fundamentals of landscape design in a collaborative environment. A graduate student from USU Landscape Architecture and Environmental Planning (LAEP) department worked with Extension staff to

help students understand their site, develop a design program, create design concepts, and eventually produce schematic designs for the site. Students utilized the process outlined in the design guide to develop design solutions and solicit feedback from fellow students and teachers regarding their designs. The student's final designs were shared with parents, school faculty, and the school's board of directors. At this presentation, students outlined their process and vision for

“The Back Seven” and the concept plan was approved by the board. Students who participated in the class also had the opportunity to visit the USU campus and learn about degrees and higher education.

In a post-project listening session conducted by the project team, Greenwood Charter School students and their teacher reported that their involvement in the design process and subsequent creation of a landscape plan for their schoolyard helped instill in them a sense of ownership for the future of The Back Seven. It also led to a heightened awareness of the environmental factors affecting the area surrounding their school. (see Figure 3).

*Figure 3: Greenwood Charter School’s “The Back Seven” Landscape Plan*



The Greenwood Charter School has already used the site plan developed in partnership with USU LAEP Extension program to successfully acquire a \$3,000 grant from a private company to begin construction of an element designed in the student’s “The Back Seven” landscape plan. Additionally, the plan is being used to acquire permits and construction details to construct a \$200,000 learning pavilion and associated access routes. The expected long-term outcome of this project is the development of outdoor classrooms across the state to help improve the quality of non-formal and formal educational opportunities for students and community members.

### **Public Value and Next Steps**

The Utah Outdoor Classroom Grant Design Guide is a free resource available to the public to help schools design outdoor classrooms and applicants successfully apply for the Outdoor Classroom Grant. The guide can help communities across the state gain access to state funding for outdoor classroom infrastructure. During the 2021 grant cycle, over \$300,000 in proposals were submitted and \$177,554 was awarded. In the 2022 grant cycle, this demand waned with \$94,665.10 in proposals submitted and funded. The Outdoor Classroom Grant is the primary resource available to guide grant applicants. Though the guide is primarily designed to support

the Utah Outdoor Classroom Grant, it can also be used by all educators to help teach basic landscape design concepts as outlined by the Utah Education Network in the Agriculture, Food and Natural Resources Cluster.

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