

Using Leadership to Transform an Underutilized Green Space into a Multidisciplinary Innovation Hub for Participatory Learning

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Abstract

We used the SIU Green Roof, originally a sustainable urban horticulture project, to provide an inclusive space to meet participatory learning objectives across many disciplines on the SIU campus. We designed and implemented a three-step process: Initiation, Jumpstart, and Execution. Initiation focused on securing administrative approval, personnel, funding, developing a support network, identifying the target audience, and understanding the root cause for underutilization. Jumpstart focused on solving the identified root causes by initiating low-cost engineering projects. Execution focused on communicating with the targeted audience by showcasing the Jumpstart projects. Remaining is an implementation step including sustainable practices: access, awareness, documentation, and ownership to ensure the resiliency and longevity of interdisciplinary use of this space.

In our project, the Initiation step addressed the root causes limiting SIU Green Roof's maintenance and development as an asset for the university, including limited knowledge of and access to the facility by non-agriculture students and faculty. The Jumpstart step solved the root causes by forming a multidisciplinary team drawn from a variety of fields to install an autonomous irrigation system, data acquisition device, and micro wind turbine. The projects enhance awareness of the SIU Green Roof and highlight opportunities for non-agriculture students and faculty. The Execution step follows naturally as awareness of the on-going Jumpstart projects informs and inspires students and faculty to utilize the space as a classroom, research facility, or for other experiential learning opportunities. Lastly, sustainability concepts are instilled by implementing sustainable practices of a secure but accessible door, social media presence, maintaining documentation and a public data archive, and delegating responsibility to existing student organizations and staff.

Through the implementation of leadership principles and communication, we successfully increased student engagement for educational purposes while increasing involvement on an underutilized green space. Moving forward, implementing sustainable practices and communication networks are key to the longevity of a successful multidisciplinary innovation hub.

Keywords: Education practices, Multidisciplinary education, Sustainable energy, Sustainability, Underutilized spaces