

# Student Sustainability Projects

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# Introduction

# Learning Objectives

- ▶ Participants recognize elements of successful student sustainability projects

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- ▶ Participants brainstorm possible projects and participants for their own communities

# Outline

- ▶ Motivation: Sustainability and Education

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- ▶ Theory: Elements of Authentic Student Projects

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- ▶ Theory: Elements of Authentic Student Projects
- ▶ Application: Case Studies

# Sustainability and You

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- ▶ How about your students?

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- ▶ How about your students?
- ▶ How about your institution?

# Motivation

# Why Education and Sustainability?

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- ▶ Schools prepare our next generations of citizens.
- ▶ Sustainability is an issue of intergenerational equity.
- ▶ Claim: It is natural for schools to practice and promote sustainability in the long-term interest of their students.

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- ▶ Examples:
  - ▶ Providing disciplinary content and teaching soft skills
  - ▶ Standardized testing and inquiry-based learning
- ▶ Do you have other examples?

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- ▶ How do we simultaneously meet both of these goals?



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  - ▶ Cultivating sustainability competencies in our students
  - ▶ Lowering resource use on our campus
- ▶ How do we simultaneously meet both of these goals?
- ▶ Are they mutually exclusive?

# Authentic Projects

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- ▶ Authentic projects have sufficient relevance and tangible impact to motivate and engage students.
- ▶ The challenge is to define, create, and administer these projects within the constraints of your institution.

# Elements of Authentic Projects

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- ▶ Adequate time, space, and resources for the participants
- ▶ Claim: Adding sustained workload to any participant is unsustainable.



# Questions

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- ▶ Does your institution have sustainability as a value?
- ▶ Who are your likely participants in projects?

# ETC Tour

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- ▶ Our energy related classes use the building as a laboratory for classroom exercises on energy use.

## Case Study: Student Energy Projects



# Vision and Mission

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- ▶ Mission: Students using digital data from the campus on resource use identify and propose opportunities for efficiency and monitor the effectiveness of interventions

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- ▶ The department counts this class toward the degree.
- ▶ Community volunteers provided coaching and expertise to students.



# Outcomes

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# Outcomes

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- ▶ Students take class for credit where they investigate energy questions on campus.
- ▶ Students present their work at our spring campus research symposium.
- ▶ One student project quantifying energy savings from automatic light sensors was presented to our campus facilities leadership.

# Difficulties

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- ▶ Not all data sources were as available and organized as students hoped.

# Questions

- ▶ What about this case study could be relevant at your institution?

## Case Study: Garden Classroom



# Vision and Mission

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- ▶ Local Mission: SSU students producing food and knowledge to address food equity issues in the surrounding community.

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- ▶ One faculty member provides coordination as part of university service
- ▶ One faculty member provides agro-ecological expertise as part of teaching
- ▶ SSU provides Instructionally Related Activities Grant to fund assistants and supplies

# Outcomes

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- ▶ Garden Classroom Webpage

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- ▶ Coordinating sufficient student effort to maintain the garden is challenging.
- ▶ There are garden maintenance tasks which don't always have a clear owner.

# Questions

- ▶ What about this case study could be relevant at your institution?

# Brainstorming Potential Projects

# Vision and Mission

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- ▶ How could these connect to authentic student projects?



# Participants and Contributions?

- ▶ What participants are available in your institution and community?

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- ▶ What resources are potentially available?

# Outcomes

- ▶ What are the learning outcomes?

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- ▶ What are the other tangible results?

# Difficulties

- ▶ Do you anticipate any difficulties?

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- ▶ Do all the participants have the time, space, resources, and energy to participate?

# Resources

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- ▶ Journal of Sustainability Education