

Apr 19th, 5:20 PM - 5:35 PM

21st Century Stewardship: the role of educational equity in school sustainability programs

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A decorative graphic on the left side of the slide features several green leaves of various sizes and orientations, some overlapping. Interspersed among the leaves are solid green circles of different diameters. The overall aesthetic is clean and nature-themed.

21st Century Stewardship

Marissa Parrinello Page
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Scholarly & Creative Works Conference
April 19, 2018



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Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

- Brundtland Report, 1987



70

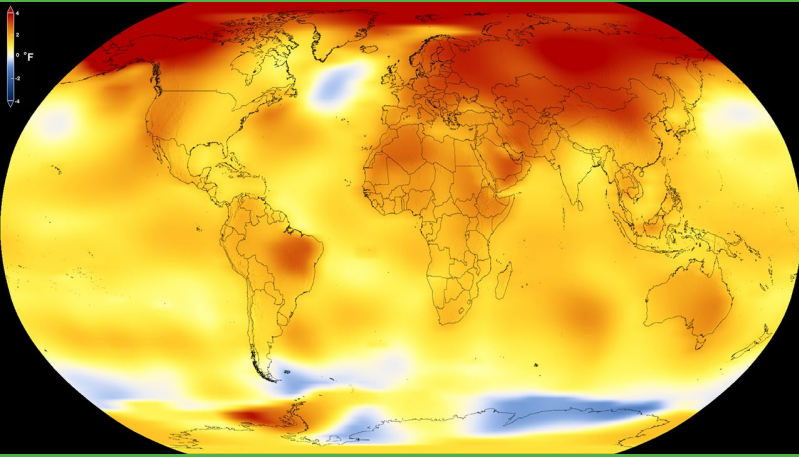
Projected Bay sea level rise (in.) by end of century; 8" in last 100 years

2500

Projected date of ice-free arctic during summer months

global instability

Increasing severity: hunger, poverty, conflict, unpredictable weather



Average global temperature 2013 to 2017, as compared to baseline average 1951 to 1980;
Credit: NASA's Scientific Visualization Studio.

this is the world
our students will
inherit

Increasingly devastating consequences of
climate change → generational inequity



There is an urgent need to educate our youth on environmental issues and empower them with opportunities to effect positive change.

THE PROBLEM

- Inconsistent and inadequate sustainability programs on school campuses
- Specifically across Grove County and within Alder School District

Equity Imperative Declaration, 1.17.18

- “...Ensuring every student has access to educational opportunities that challenge, inspire and prepare him or her for a strong future.”
- The “educational failure of any one student impacts the entire...community”





Theoretical Framework

Sustainability at Academic Institutions

- Strategies and processes
- Synergistic efforts
- 4 types of modeling

(Schelly et al., 2012; Lyons Higgs & McMillan, 2006)

Organizational Change

- Transforming organizational culture
- Shared vision + decision-making; consistent communication; institutionalizing changes

(Kotter, 1996; Brown, 2012)

Environmental Justice & Equity

- Fair allocation and distribution of harms/resources over generations
- Human right to access education, training and participation in env. issues

(Narksompong & Limjirakan, 2015; Weiss, 2008; Wilkinson & Freudenburg, 2008)

The background is a solid light green color. On the left side, there are several decorative elements: a large, semi-transparent green circle in the top left; a smaller, semi-transparent green circle in the top center; a large, detailed green leaf with visible veins, positioned vertically in the center; a smaller, solid green leaf to the left of the large one; and a semi-transparent green circle in the bottom left. At the bottom center, there is a bright lime green teardrop shape.

Gap

Relationship between
school sustainability
programs & equity issues

Specifically in regards to
programs that include
education, training &
active engagement of
students from a multi-site
& district context



Research Question

What is the relationship between educational equity and school sustainability programs?



Mixed Methods Approach

MULTI-LEVEL QUANTITATIVE


1. Middle schools
 - Oak Middle
 - Pine Middle
 - Sequoia School
2. Alder School District
3. Grove County

- Non-experimental survey data
- Teachers at all three sites

QUALITATIVE

- Semi-structured interviews
 - Principals & custodians
 - District maintenance
 - Local waste disposal
 - Environmental education

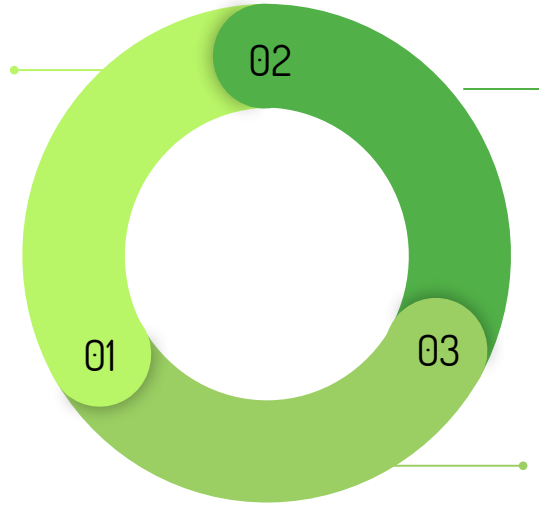
Findings: 3 Primary Themes



01
**Unintentional
Structure of
Inequity in
Grove County**

02
**Scattershot
Approach &
Shared Obstacles
in Alder School
District (ASD)**

03
**Individual Agency
in Structure of
Inequity in ASD**



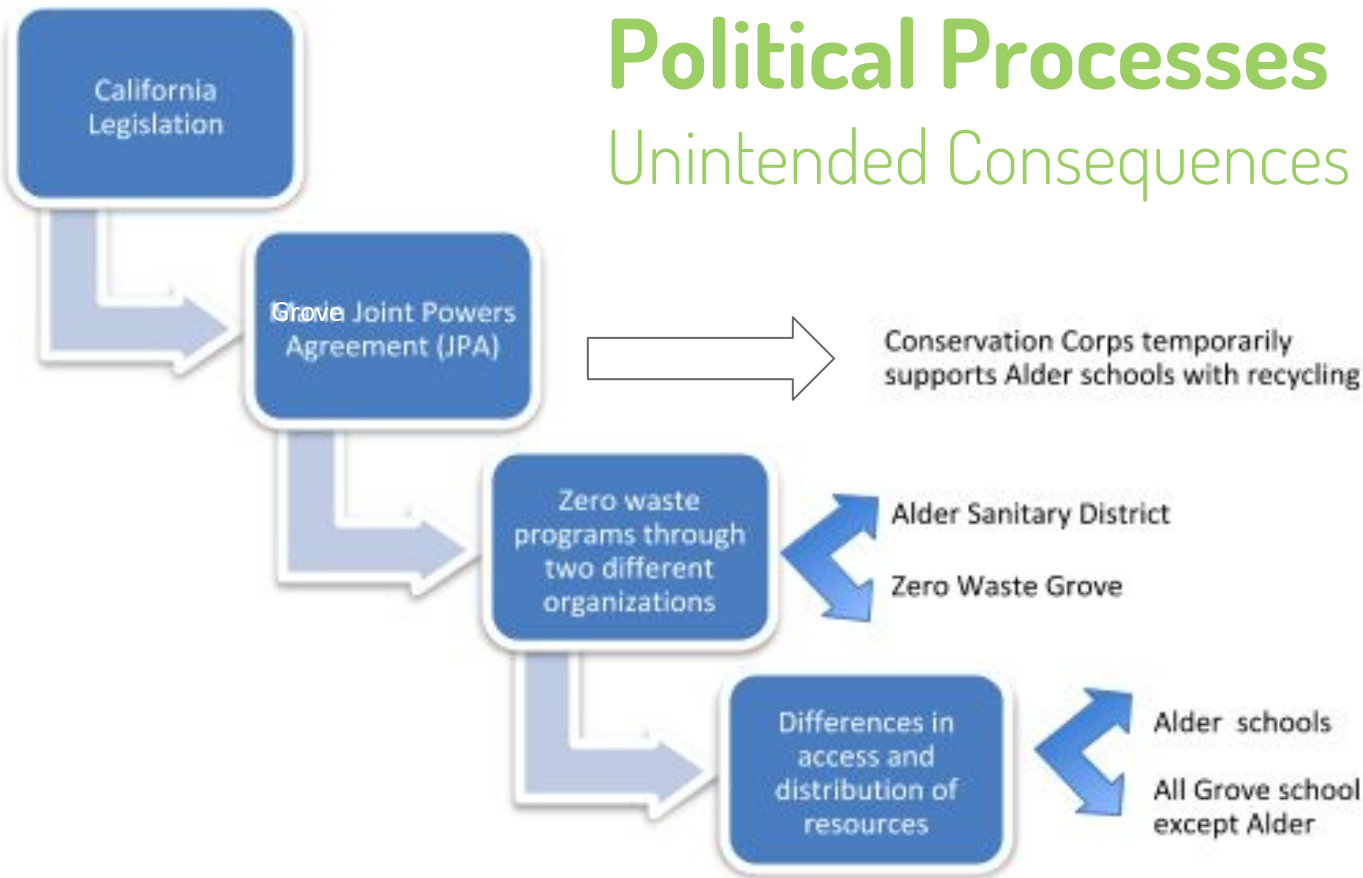



Theme 1: Unintentional Structure of Inequity

- Schools in central and southern Grove County have access to a comprehensive zero waste program while Alder city schools do not
- The county, school and sanitary district are complicit in perpetuating inequity by ignoring and failing to address the issue

Political Processes

Unintended Consequences





“It is literally everyone except the city of Alder.”
- Zero Waste Grove Coordinator

“Educational programs and outreach in Grove should be comparable to the Alder Sanitary District but...”
- Sanitary District Coordinator






Program Components

Zero Waste Grove Schools Action Plan

1. Initial meeting with stakeholders
2. Collaborative waste audit & presentation of results
3. Classroom/assembly education
4. Stakeholder Training
5. Implementation of waste stations & lunchtime monitors
6. Secondary school waste audit, feedback, celebration of successes
 - Full time coordinator and staff

Alder Sanitary District

- Support described as “minimal” due to issues with manpower, funding and capacity for outreach
 - Tabling at school district fundraisers
 - School walk-throughs
 - Providing recycling/compost bins upon request
 - Presentations upon request
 - Part of job description for sanitary district
- 

Theme 2: Scattershot Approach & Shared Obstacles




SCATTERSHOT APPROACH

unsystematic or partial measures at the school and district level; depends on voices that are “loud enough” for “long enough”

4 PRIMARY OBSTACLES

1. **Mixed district messages** (ex: solar panels but no coordination)
2. **Inconsistent communication** (ex: water fill stations; perceptions)
3. **Present priorities** (ex: water fill stations; perceptions)
4. **Stakeholder buy-in and coordination** (ex: custodians; education)



District and school initiatives are often based “solely on the energy of a person or small group of people and when those people run out of energy or move on, the initiative goes away.”

“Our efforts towards sustainability are scattershot.”
– Alder principal

Staff Perceptions of Environmentally Responsible Behavior as a Priority in Culture and Communication, by School and District



| Site | School Culture | District Culture | School Communication | District Communication |
|------------------|----------------|------------------|----------------------|------------------------|
| Sequoia | 3 | 2.4 | 2.7 | 2.2 |
| Oak | 2.44 | 1.72 | 2.72 | 1.44 |
| Pine | 2.34 | 2.16 | 1.84 | 1.81 |
| All Sites | 2.59 | 2.09 | 2.42 | 1.82 |

Note: Average calculated from sample size of 77 (total) voluntary participants on a scale of 1 – 4, where 1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree)

Theme 3: Individual Agency in Structure of Inequity



“I think it’s doing the right thing, and also to look ahead – for your kids, your grandkids”.
– Sequoia custodian

TYPES OF AGENCY

1. Student-driven change
2. Environmental education in the science classroom
3. Model school - a comprehensive waste program

Outlier Program @ Sequoia School

Led by principal, custodian & lunch duty

- Buy-in
- Consistent communication
- Priority of stewardship


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Implications

1. Accountability
2. Official sustainability policy; plan, communicate and invest accordingly
3. Modernize custodial responsibilities
4. Community and school partnerships
5. Sustainability coordinator role
6. Consistent message and modeling

Rationale

- Foster environmental equity and civic engagement
- Direction of the tide
- Education is all about stewardship
- Our responsibility as a public organization

- 
- “
- Failing to educate of any one student affects the whole community.
 - ASD Equity Declaration
 - We can try harder. We have an impact. We must change.”
 - 7th Grade students

Thanks!

WANT MORE INFO?

Read the thesis and slides at

• scholar.dominican.edu

Contact me at

• mparrinello2@gmail.com

