

Introduction and Informed Consent

Challenges and Opportunities for Formally Integrating Sustainability and Sustainable Food Systems Concepts into Elementary Education Standards in the United States

About this Study:

Greetings! We are a team of researchers at Montana State University working on a research study about sustainability education in elementary schools and Washington's Integrated Environmental and Sustainability Education Learning Standards (ESE Standards). Our team is interested in understanding how the ESE standards have been integrated into classroom practice around the state and whether or not they are functioning as Education for Sustainable Development (a concept developed by the United Nations). Our research team includes students and faculty.

If you choose to participate in this survey, you will be presented with a series of **21 questions** divided into three sections. It is expected that this survey will take **approximately 15 minutes to complete**. Survey responses will be kept anonymous, and your participation is voluntary. Your responses will help our team prepare teaching materials related to the ESE Standards and make recommendations for other states that are interested in developing sustainability standards.

We are offering **gift certificates of \$15 to Amazon.com** for the first 75 respondents who complete the majority of the survey. At the end of the survey you will be asked to provide your mailing address in order to receive your gift certificate. The gift certificates will be mailed out within two weeks of the survey's close date. In order to participate in this survey, you must be a K-5 regular-classroom teacher in a public school in the state of Washington.

We are grateful that you are considering participating in this study by sharing your time and your teaching experiences with us.

Thank you,

Alyssa Stewart, Selena Ahmed, Carmen Byker Shanks, and Shannon Arnold

Contact:

If you have further questions, concerns, or suggestions, please do not hesitate to contact our research team or the Chair of the Montana State University Institutional Review Board, Mark Quinn, (406) 994-4707 (mquinn@montana.edu).

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Consent:

I am willing to participate in the study outlined above by responding to the following survey questions. I give permission for you to include my anonymous survey responses in your research analysis and publication material. I understand that in order to participate in this survey, I must be a K-5 teacher in a public school in Washington.

☐ Yes, I consent to participating.

Background Questions

What grade do you teach?

- ☐ Kindergarten
- ☐ First
- ☐ Second
- ☐ Third
- ☐ Fourth
- ☐ Fifth
- ☐ Other (please specify)

How many years have you been teaching?

- ☐ Less than one
- ☐ 1 -5
- ☐ 6-10
- ☐ 11-20
- ☐ More than 20

Is your school enrolled in the schoolwide Title I program?

- ☐ No
- ☐ Yes
- ☐ I don't know

Is your school an International Baccalaureate school?

- ☐ No
- ☐ Yes

Approximately how many students attend your school?

- ☐ 1 - 50
- ☐ 51 - 100
- ☐ 101-300
- ☐ Over 300

In which county do you teach?

How much do you know about Washington's Integrated Environmental and Sustainability Education Learning Standards (ESE Standards)?

- ☐ Nothing at all
- ☐ A little to moderate amount
- ☐ A lot

In one or two sentences, how do you define sustainability?

What training have you received related to sustainability? (Please select all that apply.)

☐

College course related to sustainability education

- ☐ Professional development related to environmental and sustainability education organized by your school or district
- ☐ Professional development related to sustainability education organized by a non-profit. If so, which non-profit?
- ☐ Other (please explain)
- ☐ None

What challenges do you face when trying to teach about sustainability-related concepts in your classroom? (Please select all that apply.)

- ☐ Lack of knowledge about Washington's Environmental and Sustainability Education Learning Standards
- ☐ Lack of knowledge about sustainability
- ☐ Lack of knowledge about the environment
- ☐ Lack of professional development to effectively teach about sustainability
- ☐ Difficulty integrating these concepts across subject areas
- ☐ Too many sets of standards (NGSS, CCS, etc.) and not enough time to teach topics that aren't required
- ☐ Lack of resources (e.g. lesson plans, books, videos, outdoor space)
- ☐ Difficult to meet these standards at specific grade level
- ☐ Lack of knowledge about diverse teaching methods
- ☐ Other (please explain)
- ☐ I do not face any challenges.

There are many connections between sustainability and the food system. Which of the following do students learn about in your classroom? Topics that your students learn about on field trips, with guest teachers, and with environmental education organizations count too! (Please select all that apply.)

- ☐ Cost of food
- ☐ Cultural importance of foods
- ☐ Dietary diversity
- ☐ Food insecurity and hunger
- ☐ Food preferences
- ☐ Greenhouse gas emissions in the food system
- ☐ Local foods
- ☐ Role of pollinators in the food system
- ☐ Plant based diets
- ☐ Soil health

☐ Sustainable agriculture

Teaching Practices

Which of the following teaching methods do you use in your classroom? (Please select all that apply.)

- ☐ Case studies (in-depth looks at particular people, situations, or groups)
- ☐ Collaborative real-world projects
- ☐ Community-based research projects
- ☐ Debates
- ☐ Demonstrating good practices for your students
- ☐ Experiential learning
- ☐ Facilitated discussions
- ☐ Field trips
- ☐ Fishbowl discussions
- ☐ Outdoor learning
- ☐ Reflective journaling
- ☐ Roleplaying
- ☐ Small-group projects
- ☐ Storytelling
- ☐ Systems-based games (games that allow students to see the interconnectedness of different players/elements)
- ☐ Whole-class projects
- ☐ Other (please describe)

How confident do you feel in your ability to use the following teaching methods?

	Not at all confident	A little confident	Pretty confident	Extremely confident
Case studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collaborative real-world projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community-based research projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Debates	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Demonstrating good practices for your students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Experiential learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitated discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all confident	A little confident	Pretty confident	Extremely confident
Field trips	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fishbowl discussions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Outdoor learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reflective journaling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roleplaying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small-group projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Storytelling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Systems-based games	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whole-class projects	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which of the following content areas do you teach about in your classroom?
(Please select all that apply.)

- ☐ Climate change
- ☐ Biodiversity
- ☐ Sustainability in agriculture
- ☐ Sustainable diets
- ☐ Disaster risk reduction (ways to structure our lives/world to lessen the social, economic, and environmental impact of natural disasters)
- ☐ Sustainable consumption and production
- ☐ Local issues
- ☐ Global issues
- ☐ Social, cultural, economic, and environmental interconnectedness
- ☐ Sustainable energy use
- ☐ Sustainable water use
- ☐ None

How confident do you feel in your ability to teach about each of the following content areas?

	Not at all confident	A little confident	Pretty confident	Extremely confident
Climate change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biodiversity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainability in agriculture	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable diets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disaster risk reduction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not at all confident	A little confident	Pretty confident	Extremely confident
Sustainable consumption and production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Global issues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social, cultural, economic, and environmental interconnectedness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable energy use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sustainable water use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Which of the following competencies do you strive to foster in your students?
(Please select all that apply.)

- ☐ Collaborative decision-making and problem-solving
- ☐ Systems thinking (able to understand that everything is interconnected)
- ☐ Critical thinking
- ☐ Anticipatory thinking (able to understand future impacts of their actions)
- ☐ Collective action (using agency to collaborate to solve community problems)
- ☐ None

How confident do you feel in your ability to foster the following competencies in your students?

	Not at all confident	A little confident	Pretty confident	Extremely confident
Collaborative decision-making and problem-solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Systems thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anticipatory thinking (able to understand future impacts of their actions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collective action (using agency to collaborate to solve community problems)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Integrated Environmental and Sustainability Education Learning Standards

The next survey questions will refer to the state's **Integrated Environmental and Sustainability Education Learning Standards (ESE Standards)**. To give you

some context, the following text is an overview of the state's ESE Standards, taken from the standards themselves.

"Environmental and Sustainability Education offers a rich and meaningful context for integrated teaching and learning. The Washington State K-12 **Integrated Environmental and Sustainability Education Learning Standards (ESE Standards)** describe what all students should know and be able to do in the area of Environmental and Sustainability Education. Consistent with the intent of the law governing environmental education in Washington State, these standards are intended to be **integrated into core content areas and across all grade levels**.

Washington State has identified **three broad overarching standards** that are specific to Environmental and Sustainability Education. Unlike core content standards in Washington State, these standards **do not include specific grade level expectations**. Instead, included are **connections of the Integrated Environmental and Sustainability Education Learning Standards to the Washington State Science Standards, Social Studies Standards, English Language Arts Standards, and Mathematics Standards**. The ESE standards also serve as a meaningful and engaging context for the arts, health and fitness, world languages, international (global) education, education technology, and Career and Technical Education.

Additionally, the Integrated Environmental and Sustainability Education Learning Standards **align with the state's Indian Education curriculum**, 'Since Time Immemorial: Tribal Sovereignty in Washington State' Environment and sustainability are key elements currently integrated into this powerful curriculum. "

How well do you think you meet each ESE Standard in your classroom on a scale of 1 - 5, where 1 is not well at all and 5 is extremely well?

Even if you have not previously heard of these standards you may still be meeting them. Lessons that your students learn on field trips, with guest speakers, and with environmental education organizations count too!

	Not well at all 1	2	3	4	Extremely well 5
Standard 1: Students develop knowledge of the <u>interconnections and interdependency of ecological, social, and economic systems</u> . They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standard 2: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to <u>understand the structure, components, and processes of natural and human-built environments</u> .	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Standard 3: Students develop and apply the knowledge,	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Not well at all 1	2	3	4	Extremely well 5
perspective, vision, skills, and habits of mind necessary to <u>make personal and collective decisions and take actions that promote sustainability.</u>					

In a few sentences, please describe an example of a lesson or activity you use to meet ESE Standard 1 in your classroom. If you don't believe you meet Standard 1 at all, please type n/a.

Standard 1: Students develop knowledge of the interconnections and interdependency of ecological, social, and economic systems. They demonstrate understanding of how the health of these systems determines the sustainability of natural and human communities at local, regional, national, and global levels.

In a few sentences, please describe an example of a lesson or activity you use to meet ESE Standard 2 in your classroom. If you don't believe you meet Standard 2 at all, please type n/a.

Standard 2: Students engage in inquiry and systems thinking and use information gained through learning experiences in, about, and for the environment to understand the structure, components, and processes of natural and human-built environments.

In a few sentences, please describe an example of a lesson or activity you use to meet ESE Standard 3 in your classroom. If you don't believe you meet Standard 3 at all, please type n/a.

Standard 3: Students develop and apply the knowledge, perspective, vision, skills, and habits of mind necessary to make personal and collective decisions and take actions that promote sustainability.

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End of Survey

If you are one of the first 75 teachers to respond to this survey, you will receive a \$15 Amazon gift card (mailed within two weeks of the survey's close date). Please provide your name and mailing address below to receive your gift card. Your name and address will not be associated with the responses you provided in this survey.

A rectangular box with a thin black border, intended for providing a name and mailing address.