



Teaching with Sustainability

A course offered during IAP January 2022

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Overview of Topics

Week 1- What is sustainability education?

- Defining sustainability using the Brundtland Report & sustainability education
- Brief timeline of education to accomplish sustainability initiatives
- Explanation of a Jigsaw Activity
- Jigsaw activity of foundational sustainability documents

Week 2- What is effective teaching?

- Effective teaching is complex
- Learning theories provide a framework for how people learn
- Theoretical perspectives used in sustainability education
- Sustainability Learning Approaches
- Positivism vs Postpositivism
- Positivism and Postpositivism Activity
- Practicality of Sustainability Education

Week 3- How do we teach sustainably?

- Asset vs Deficit Approaches
- Criticism of US Education
- Bloom's Taxonomy
- Sustainability education looks to paradigm shifts
- Levels of implementing sustainability
- Level 1, Level 2, Level 3
- Transitioning through Sustainability Levels

Week 4- What does this look like for me?

- Explanation of Categories of Sustainability Literacy Competencies
- Explanation of Sustainable Instructional Approaches
- Overview of Understand by Design (UbD)
- Modified UbD template
- Sticking Points

What is Sustainability Education?

Week 1

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Teaching with Sustainability

Quick Overview

- The goal of this class is to provide participants with the opportunity to connect sustainable pedagogies with their teaching practices (current or future).

- At times we'll ask you to reflect on the practices that we are using during these sessions
 - Participant - Learning and building knowledge
 - Observer- Reflecting on how we are teaching
- One of the best ways to engage in learning is to fully participate

Introductions

Who are you?

- Please share the following about yourself:
 - Preferred first name
 - What do you do?
 - Why are you interested in this class?
 - What is something that is exciting for you and you could talk for hours about?
- 2 minutes to generate ideas, we'll model how to respond, before asking for volunteers, everyone will get a chance to share! (You can type your responses in the chat if that is more comfortable for you)

Introductions

Let's break it down...

1. Why do you think we did this activity?
2. What were some ways we supported participants in this activity?
3. What are other ways we could have supported participants in this activity?

Learning Objectives for Today

- Participants will get a foundational view of sustainability education
- Participants will begin to situate sustainability education within their professional practice

What Does Sustainability Mean to You?



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Common Definition

The *Our Common Future Report*, commonly referred to as the *Brundtland Report* shares two important understandings around sustainability:

- Sustainable Development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs."
- Identifies the following 3 components of sustainable development: environmental protection, economic growth, and social equity

Sustainability

Sustainability emerged not as a discipline but as a field focused on solving complex wicked problems that are interconnected socially, environmentally, and economically

Sustainability Education

Sustainability education works to creating sustainability literate individuals— people who not only know about sustainability but are able to embody the knowledge, skills and dispositions of sustainability

Transforming systems of thinking and learning.

Brief Timeline -

Education to Accomplish Sustainability Initiatives

1987	Our Common Future Report (Brundtland Report)	Defined <i>sustainable development</i>
1992	United Nations Conference on Environment and Development (Rio Summit, Earth Summit)	Chapter 36 of Agenda 21 identified the critical role of education, training, and public awareness in achieving sustainable development
2000	Release of the Earth Charter	The Earth Charter is a collaborative document which articulates a worldwide vision for, and the steps necessary to accomplish a sustainable future
2000	Millennium Development Goals	Goal of ending worldwide poverty
2005	UN Decade of Education for Sustainable Development (DESD)	Goal of incorporating sustainable development into education systems
2014	Global Action Program (GAP) on ESD	Continued the work of DESD by identifying five priority action areas, and four strategies in an effort to support the SDGs
2015	Sustainable Development Goals (SDGs)	17 goals which were identified to build a blueprint for a better and more sustainable future for all

Jigsaw Activity -

Foundational Documents

- Jigsaw Activity
 - Work with a group to unpack something (in this case an article) and then share that knowledge with a different group of people to build a collective, group understanding
 - Examples of Classroom Uses:
 - Readings (Chapters of a Book; Articles)
 - Learning new content (Ex Families on Periodic Table)

Jigsaw Activity -

Foundational Documents

- Jigsaw Activity- Foundational Documents- Preview
 - Part 1- Time to read individually & answer questions
 - Part 2- Work as a group to answer questions & unpack article
 - Part 3- Move to new groups to learn about other documents
 - Part 4- Large group debrief of documents

Jigsaw Activity -

Part 1

- Take 15 minutes to read your article and work to answer the questions.
 - Do what you need to do to be successful in reading your document.
- Work to answer the questions, individually
- Extra time is yours to stretch, rest your brain, etc.

Jigsaw Activity -

Foundational Documents

- Group 1: ***Earth Charter***
 - *Read all*
- Group 2: ***Roadmap for Implementing the GAP on ESL***
 - *Read print pages 1-25*
- Group 3: ***Our Common Future Report***
 - *Read print pages 59*
- Group 4: ***Education for SDGs Learning Objectives***
 - *Read print pages 1 and 6*
- Group 5: ***Education 2030 Incheon Declaration and Framework for SDG 4***
 - *Read print pages pages 7-11*

Jigsaw Activity -

Foundational Documents



15:00

Questions to Answer

1. Who wrote the document?
2. When was the document written?
3. What do you think the document asking people to accomplish?
4. What effect do you think the document has had on education, either intended or unintended?
5. How does the document connect to your professional practice?
6. What questions do you have after reading this excerpt?

Jigsaw Activity -

Part 2

Debrief as a group

1. Brief introductions
2. 10ish minutes to work through the answers with your group
3. Consider- what do you want to share with others about your document?
4. Before you leave you group, make sure that everyone has a different letter...A, B, C, D, E

Jigsaw Activity -

Part 3

New Groups

- 15ish minutes to share about your documents with your new groups

If time permits:

- What commonalities are there in these documents?
- What differences/competing ideas are there in these documents?
- How do these documents connect to your professional practice?

Jigsaw Activity -

Part 4

Reflect as a large group

- What commonalities do you think are in these documents?
- What differences/competing ideas are there in these documents?
- How do you think these documents connect to your professional practice?

Pause for Pedagogy

Let's unpack the Jigsaw Activity:

1. How could you use an activity like this in your professional practice?
2. What were strengths of this activity?
3. What barriers could there be for participants?
4. What value is there in including the phrase “do you think” in a question for students?

Review of Learning Objectives

- Participants will get a foundational view of sustainability education
 - Participants will begin to situate sustainability education within their professional practice
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1. What did you learn today?
2. How will people you interact with know and benefit?

Preview of Next Week

- Next week we'll look at education research to understand effective teaching practices.
- We'll also work to identify our goals for students and how to tie our goals to our instruction

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