Human Behavior and Sustainable Development

Interdisciplinary Teacher Education Module
Designed for a 14-15 week semester, 90-135 min per week plus assignments

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Human Behavior is at the center of our everyday lives - we humans, across cultures, constantly think, wonder, and worry about the causes and consequences of our own behaviors and the behaviors of people around us. Human behavior is also a central factor that influences human well-being and sustainable development: many social problems, from xenophobia or political polarization, to mental health, to problems of sustainable resource use, have in common that human behaviors contribute to their causes, and that their solutions often require an understanding of how humans tend to think, make decisions, and act. Many themes in the curricula of subject areas deal with human behavior explicitly or implicitly, and many objectives of education in general, and of education for sustainable development in particular, aim to promote in students the ability to act responsibly, to think critically, and to cooperate, communicate well, and take the perspectives of others.

The theme of *human behavior* therefore holds many possibilities for teachers to develop engaging, meaningful, and interdisciplinary learning opportunities. In this module, we explore these opportunities and reflect on our own understandings of human behavior and sustainability within the context of our biological and cultural evolution. You will learn about the educational approach of *teaching for conceptual understanding* and *learning transfer,* that is, helping students make connections between concepts and apply their understanding across different situations. We will use this approach to explore the power of human behavioral concepts and principles as the lenses for understanding a variety of sustainability-relevant topics, and as foundations for developing core competencies in Education for Sustainable Development.

You will then apply these concepts and methods during a group project work, in which you will develop, present and evaluate a unit plan that integrates learning goals of your future curriculum as well as concepts of human behavior and sustainability, and allows students to understand and impact diverse real-world sustainability problems.

The conversation language during seminars is English, however, most materials are available in English and German, and assignments can be completed in either language.

This module will be run on the OpenEvo Learning Hub (http://openevo-learninghub.eva.mpg.de) from the Max Planck Institute for Evolutionary Anthropology. This is an international collaborative platform for innovations in teaching evolution as an interdisciplinary science.

Learning Goals

At the end of this module, you will be able to:

- know important concepts and principles of behavioral and sustainability science and apply them to diverse sustainability issues;

- explain the approach of teaching for conceptual understanding and learning transfer and its role in 21st century and sustainability education;

- reflect and improve your self regulation and cooperation competency when working in groups by applying behavioral science concepts and methods;

- develop, present and critically evaluate a unit on a sustainability issue by integrating curriculum learning goals, concepts of human behavior and sustainability, and appropriate conceptual learning and/or community science methods to enable your students to understand and impact diverse real-world sustainability problems

Readings & Materials

The main readings for this course are:
- Teacher's Guide to Evolution, Behavior and Sustainability Science http://guide.globalesd.org (English) / http://leitfaden.evoleipzig.de (German)
- Community Science Field Guide for School Culture
- Teaching Materials Database
- Pages on www.GlobalESD.org (English) / www.EvoLeipzig.de (German)
- Suggested readings and videos on the OpenEvo Moodle course

Assignments & Assessments

The assignments and assessments for this course consist of the following components:

Individual Assignments
- reflections and forum discussions
- quizzes
- surveys

50%

Project Group Work
- Complete group work assignments (see the template of the project work portfolio)
- Develop, present, reflect a unit plan

50%

Assignments Overview (*preliminary, subject to change*)

This is an overview of all your assignments in this module. The majority of assignments will not be graded for "accuracy" of content, you just have to submit them on time. The aim is to focus more on learning and reflection rather than "getting it right".

Assignment	Percent of total grade	Comments
Individual work (50 % total)		
Initial forum discussion	10	submit on time
Moodle Quizzes	10 (5 * 2)	answer correctly, complete by the end
Week 5 Forum discussion	5	submit on time
Week 7 Forum discussion	5	submit on time
Mid-semester reflection and feedback	5	submit on time
Future of your school survey	5	submit on time
Final reflection	10	complete by the end
Project group work (50 % total)		
Week 3 Group Discussion	5	submit on time
Week 4 Group Discussion	5	submit on time
Week 6 Group Discussion	5	submit on time
Week 12 Project Colloquium	5	submit on time
Group Work Evaluation and Discussion	10	submit on time
Final Unit Plan and Materials	20	Group self-assessment based on rubric and survey regarding fairness of grading

Grading Key										
Points	95-100	90-94	85-89	80-84	75-79	70-74	65-69	60-64	55-59	50-54	0-49
Grade	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	5.0 (Fail)

Module Content Overview

Week 1

Evolving Schools
- What is the purpose of school now and in the future?
- How should schools and curricula be designed now and in the future?

Week 2

Education for Sustainable Development
- What are concepts and why are they important in sustainability education? What is learning transfer and why is it important?
- What are important competencies in sustainability education?

Week 3

Sustainability, Behavior, Evolution
- What is sustainability?
- What is evolution? How is it relevant to sustainability?
- What is (human) behavior? How does it impact sustainable development?
- How do evolution and behavior relate to sustainable development?

Week 4-5

Sustainability and Cooperation
- What is the role of cooperation in sustainability?
- Are humans a cooperative species?
- What conditions and behaviors allow humans to cooperate towards shared goals?

Week 5 - Self-Directed Exploration
Self-directed exploration of concepts and teaching materials around the theme of cooperation

Module Content Overview

Sustainability and Our Mind

- How does our mind influence human well-being and sustainability?
- What are values and how do they relate to human well-being and sustainability?
- What is mindfulness and how does it relate to human well-being?

Week 7 - Self-Directed Exploration

Self-directed exploration of concepts and teaching materials around the role of human thinking in sustainability

Evolving the Future

- What futures do we want to evolve?
- How do complex systems such as our societies and ecosystems change over time?
- How can we use our understanding about human evolution and human behavior to shape our world towards a preferred future?

Week 9 - Self-Directed Exploration

Self-directed exploration of community science methods and projects

Project Work

Week 12: Project Colloquium	Week 14: Feedback on Lesson Plans