

# ESD and Transfer in Higher Education

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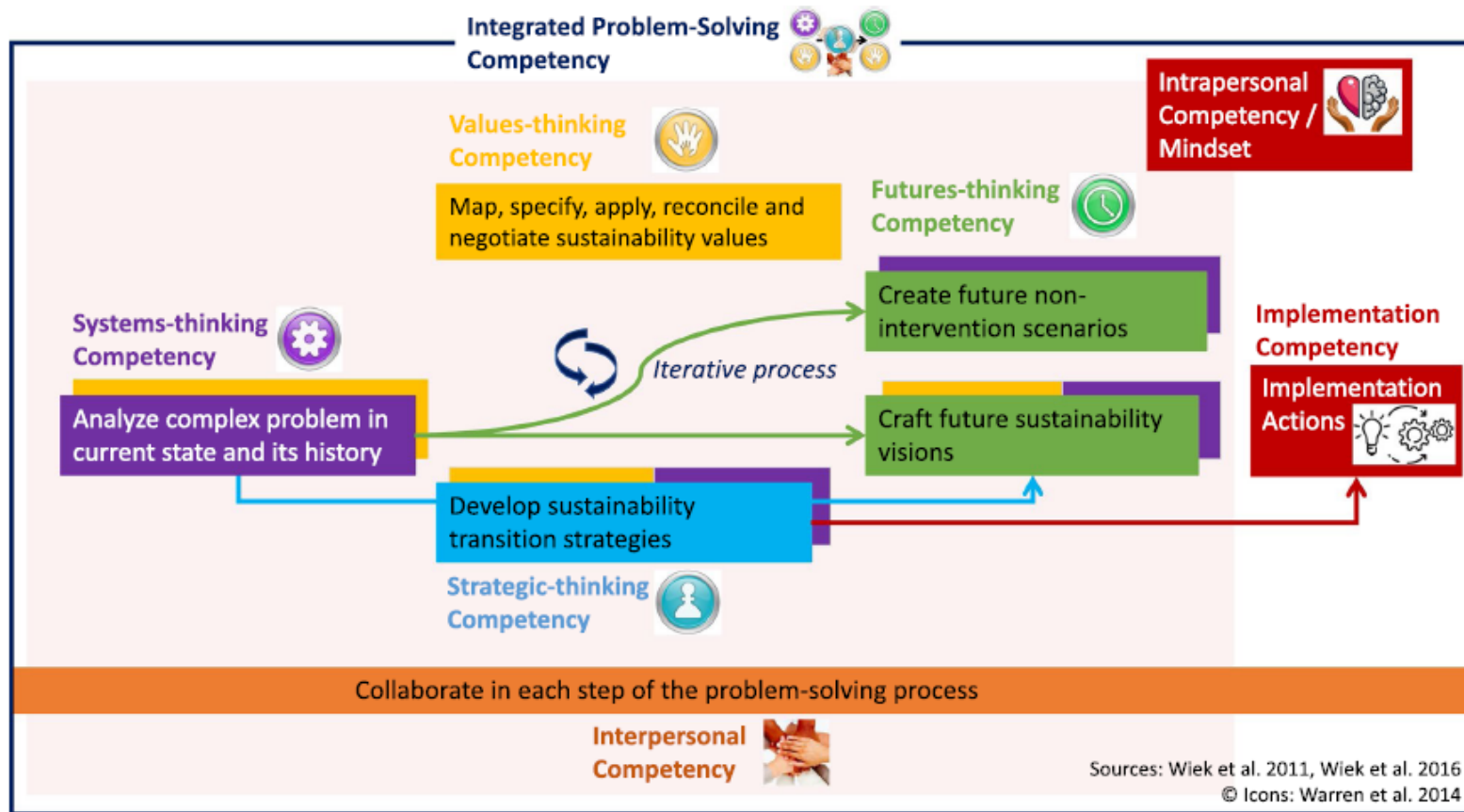
# Education for Sustainable Development

## ESD as general education in the sense of Klafki

- Education as a tool for societal development
- Education as an instrument for perceiving changes and contradictions within society
- Goal: Emancipation, autonomy, and responsibility of individuals - autonomous engagement with key issues and fundamental aspects of the globalized world.

*Klafki 1985 / 2007  
Cf. Rieckmann 2021a*

# Sustainability Competencies



Brundiers et al. 2021

## Transformative education / value orientation

- Conservation of natural resources
- Human dignity
- Justice
  
- Contribution to value clarification and a critical discourse on values
- Suggestions to reflect on one's own values and to take a stand on them
- Broadening the learners' horizon of values
  
- Conceptual change: changing fundamental orientations (values and attitudes) through education.

*Rieckmann 2020, 2018*

## ESD as citizenship education

- *"The aim of ESD must be to empower citizens in their critical political agency, to elevate them from their role as mere consumers, and to motivate them to participate in shaping their surroundings." (Fedorchenko 2021, p. 35)*
- ESD should be political; contentious issues should be presented as controversial, but the teacher can take a stance. (cf. Weselek & Wohnig 2021)

## ESD as citizenship education

- Not only addressing individual (consumption-related) issues, but also structural issues
- Enhancing the agency of citizens ("sustainability citizens")

*Rieckmann/Schank 2016; Rieckmann 2020*



# ESD competencies



## ESD competencies

- Development of sustainability competencies (cf. Brundiers et al. 2021; Redman & Wiek 2021; Rieckmann 2018)
- ESD competencies, which can be described as the ability of educators to support learners in developing sustainability competencies through a range of innovative teaching and learning practices (cf. Bertschy et al. 2013)
- Approaches / models for ESD competencies: CSCT model (Sleurs 2008), UNECE model (UNECE 2012), KOM-BiNE model (Rauch & Steiner 2013) and the approach developed by Bertschy et al. (2013) (cf. Rieckmann & Barth 2022; Corres et al. 2020)

## RSP framework for ESD competencies

The educator needs to have:

- a critical understanding of sustainable development and ESD
- a grounding in the pedagogy of education for sustainable development (ESD)
- ability to practice an action-oriented, transformative pedagogy

<https://aroundersenseofpurpose.eu>

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*Millican 2022*

## RSP framework for ESD competencies

‚Distilling‘ the UNECE competences (refining, filtering, extracting essential elements), see Vare et al. 2019

<https://arundersen.seofpurpose.eu/framework/table/>

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Thinking Holistically	Envisioning Change	Achieving Transformation
<b>Integration:</b>		
<b>Systems</b> The educator helps learners to develop an understanding of the world as an interconnected whole and to look for connections across our social and natural environment and consider the consequences of actions.	<b>Futures</b> The educator helps learners to explore alternative possibilities for the future and to use these to consider how behaviours might need to change.	<b>Participation</b> The educator helps learners to contribute to changes that will support sustainable development.
<b>Involvement:</b>		
<b>Attentiveness</b> The educator helps learners to understand fundamentally unsustainable aspects of our society and the way it is developing and increases their awareness of the urgent need for change.	<b>Empathy</b> The educator helps learners to respond to their feelings and emotions and those of others as well as developing an emotional connection to the natural world.	<b>Values</b> The educator develops an awareness among learners of how beliefs and values underpin actions and how values need to be negotiated and reconciled.
<b>Practice:</b>		
<b>Transdisciplinarity</b> The educator helps learners to act collaboratively both within and outside of their own discipline, role, perspectives and values.	<b>Creativity</b> The educator encourages creative thinking and flexibility within their learners.	<b>Action</b> The educator helps the learners to take action in a proactive and considered manner.
<b>Reflexivity:</b>		
<b>Criticality</b> The educator helps learners to evaluate critically the relevance and reliability of assertions, sources, models and theories.	<b>Responsibility</b> The educator helps learners to reflect on their own actions, act transparently and to accept personal responsibility for their work.	<b>Decisiveness</b> The educator helps the learners to act in a cautious and timely manner even in situations of uncertainty.

## For example: Futures Competence

The educator helps learners to explore alternative possibilities for the future and to use these to consider how behaviours might need to change.

**Learning objectives: The educator helps learners to...**

- 5.1 Envision a range of futures, considering and evaluating likely impacts (potentials and risks) attached to different scenarios
- 5.2 Identify and analyse the steps that would need to be taken to reach desired and possible future scenarios
- 5.3 Recognise relations and possible evolutions between the past, present, near future and far future

## For example: Futures Competence

### Underpinning Components for the educator

In order to achieve the above Learning Outcomes the educator should be able to:

UC 5 Utilise future studies techniques such as simulation games, future newspaper, scenario analysis and back casting

UC 5.1a Creatively imagine a number of different future scenarios while sharing worldviews and ideas, and discuss whether they are sustainable

UC5.1b Understand how the world might change as we project into the future and how these changes might be considered from different perspectives

UC5.2 Know about possible ways to make societal change become real through individual and collective actions

UC5.3a See how changes that take place are linked to past actions and evolve over time

UC5.3b Analyse and look for causes of change from different perspectives



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# Sustainability Transfer

## Definition of Sustainability Transfer

- Sustainability transfer as part of the Whole-Institution Approach
- *“Sustainability transfer is defined as a specific form of transfer, namely those practitioner–university partnerships that contribute to or strive for sustainable development in society. A key characteristic is a mutual exchange between university and practitioners, because no group of actors can implement sustainability on its own. However, the degree of complexity and intensity of such practitioner–university partnerships may vary from a more unidirectional transfer (of technologies) to a co-production of knowledge and practical solutions.”*  
(Nölting et al. 2020, p. 12)



# Service Learning: A practical example



## Service Learning

- Integration of a support service and learning
- Process of mutual learning (Reciprocity)
- Combination of formal learning (in a seminar context) and informal learning during project work with a partner organization
- Service Learning enables active, relevant, and collaborative learning processes.
- Since the 2000s, Service Learning has gained increasing importance at German universities.

*Backhaus-Maul & Jahr 2021; Kozakiewicz 2021; Müller-Naevecke & Naevecke 2018; Reinders 2016; Seifert et al. 2012*

## Service Learning as a method of ESD

*"Service Learning is particularly effective in promoting competencies for sustainable development. Through engagement with real-world issues accompanied by reflection sessions, reflective skills are linked with problem-solving competencies, enabling students to develop an awareness of their individual role in society." (Spraul et al. 2020, p. 171).*

- Experiencing and questioning the tensions within sustainable development based on practical actions.
- Service Learning with practical partners from the region or even with actors from the university itself (*Whole Institution Approach*).

*Arnold et al. 2021; Johannisson & Hiete 2021; Rieckmann 2021b; Stöhr & Herzig 2021; Spraul et al. 2020; Tejedor et al. 2019; Wall 2019; Bänninger et al. 2015; Adomßent et al. 2014; Sutheimer & Pyles 2011*

## SENATRA Project

- Senatra – Service Learning and Sustainable Transformation at Universities
- **Funding:** Federal Ministry of Education and Research (BMBF) under the program "Transformation Paths for Sustainable Universities"
- **Partners:** University of Bremen, Otto von Guericke University Magdeburg, Catholic University of Eichstätt-Ingolstadt, Netzwerk n, University of Vechta
- **Research Question:** To what extent can the implementation of Service Learning in higher education contribute to a comprehensive institutional sustainable transformation of universities?

GEFÖRDERT VOM



Bundesministerium  
für Bildung  
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**FONA**  
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**senatra**

Service Learning und nachhaltige  
Transformation an Hochschulen



## pbx015 Sustainable Development in the Oldenburger Münsterland – Practical Projects with Regional Partners

Prof. Dr. Marco Rieckmann  
Katrin Hedemann, Alexandra Reith

## pbx015 Sustainable Development in the Oldenburger Münsterland

- Interdisciplinary Specialization Area
- 4 contact hours per week
- 23 students (Teacher Education, Educational Sciences, Social Work)
- Service Learning

## Task: Projects with and for practical partners from the region

Conducting a project with and for practical partners from the region

Engagement with theory

Implementation of the project in cooperation with the practical partner

Presentation of the results (max. 15 minutes)

Elements of the project

- Practical partner
- Topic or task/question
- Theoretical background
- Objectives
- Implementation
- Evaluation

## Partners from the region

- Tree Association Vechta e.V.: Public relations and networking
- Adult Education Center Cloppenburg: Action days for sustainability
- Goldenstedt Municipality (Climate Protection Management): Safety and sustainability on the way to school
- MINT4YOUth project at the University of Vechta: Educational trails with ESD focus

## Expected learning outcomes

- Knowledge about fields of action in sustainable development (with local relevance)
- Development of sustainability competencies (especially action competence) (and ESD competencies)
- Development of sustainability-related values and attitudes
- Contributions to sustainable development in the region

*Vgl. Cachelin & Nicolosi 2022; Asenjo et al. 2021; García-Rico et al. 2021; Johannisson & Hiete 2021; Lucas Mangas et al. 2021; Cebrián et al. 2021; Rieckmann 2021c; Schank et al. 2020; Stöhr & Herzig 2021; Martínez-Campillo et al. 2019; Lasen et al. 2015; Vázquez Verdera 2015; Adom̃sent et al. 2014*



## Conclusion

- Need for conceptualizing ESD also as citizenship education
- Need for the development of the ESD competencies of teachers
- Service learning as an approach of sustainability transfer



**Thank you for your attention!**

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