EDUCATING FOR SUSTAINABLE DEVELOPMENT IN A POLARIZED WORLD

Ceremony on the Occasion of the Establishment of the UNESCO Chair on Teacher Education for Sustainable Development

Ljubljana | September 24, 2024

Prof. Dr. Daniel Fischer

unesco Chair

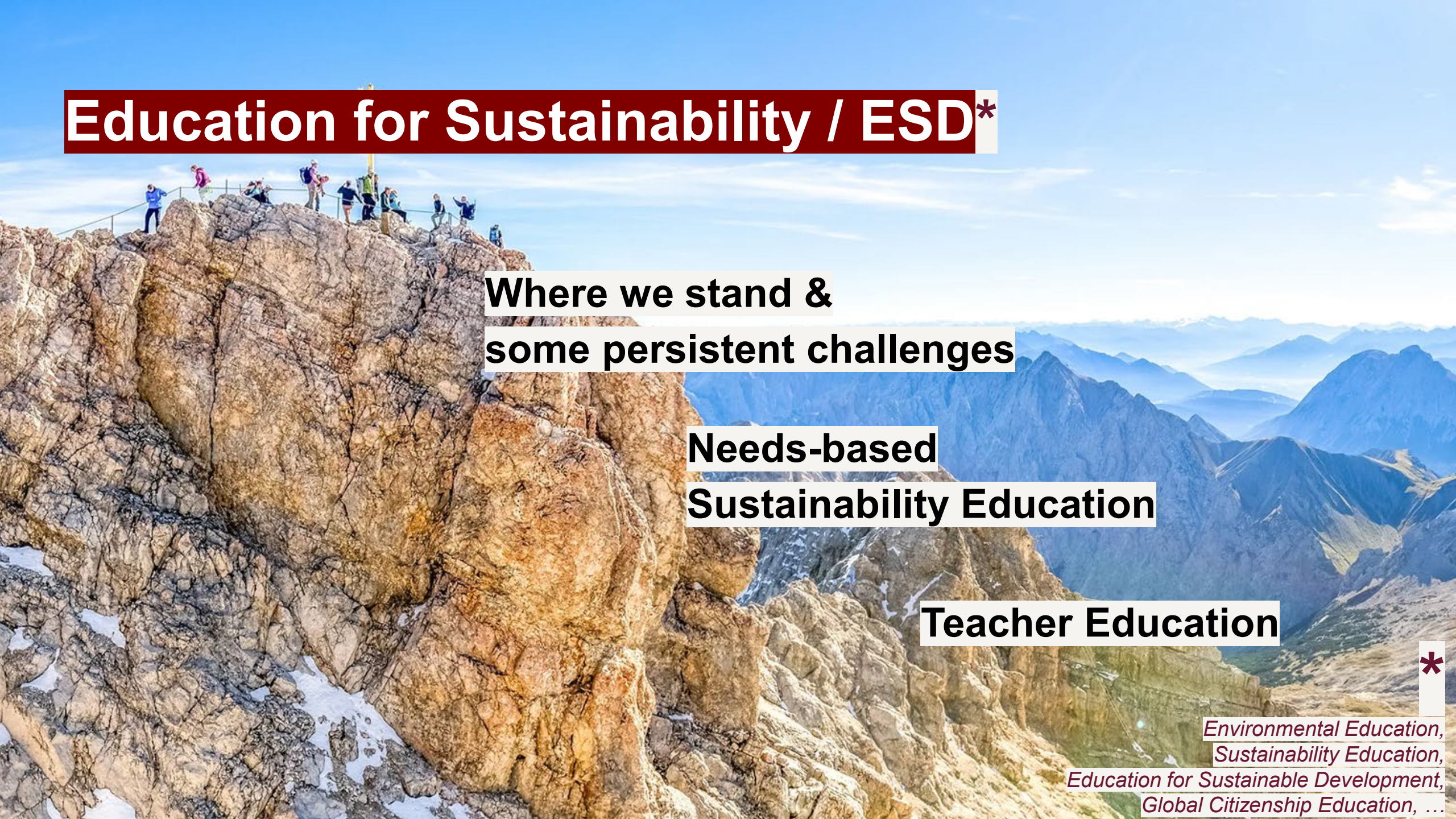
LEUPHANA UNIVERSITÄT LÜNEBURG

David Orr


What we need is
not more of the same,
but fundamentally
different education

David Orr

Education for Sustainability / ESD*



Where we stand &
some persistent challenges

Needs-based
Sustainability Education

Teacher Education

*

Environmental Education,
Sustainability Education,
Education for Sustainable Development,
Global Citizenship Education, …

DECADE OF ACTION

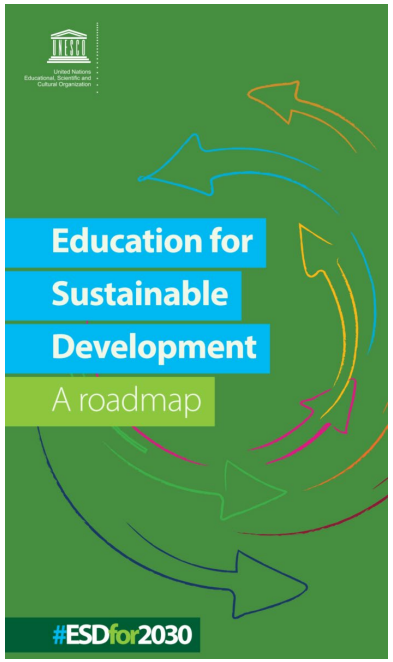
SDG 4.7: „By 2030, ensure that all learners acquire the knowledge and skills **needed to promote sustainable development**, including, among others, through **education for sustainable development** […]“

4 QUALITY EDUCATION

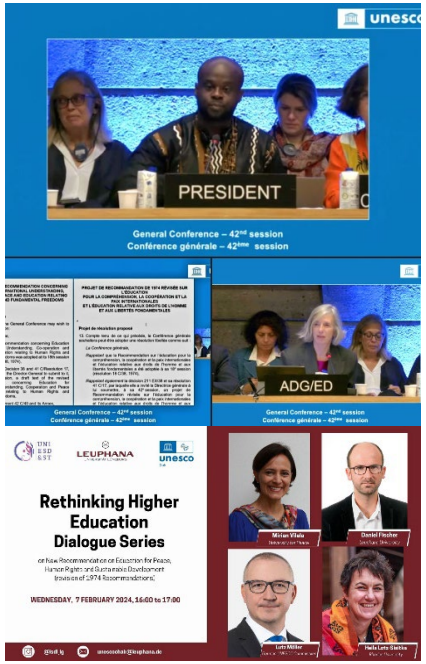
“ESD as a **key enabler** of all other SDGs”

UN General Assembly (201

SUSTAINABILITY EDUCATION: INTO THE MAINSTREAM



➔ Global program, 5 priority action areas



➔ only global legal education instrument:
ESD as quality education

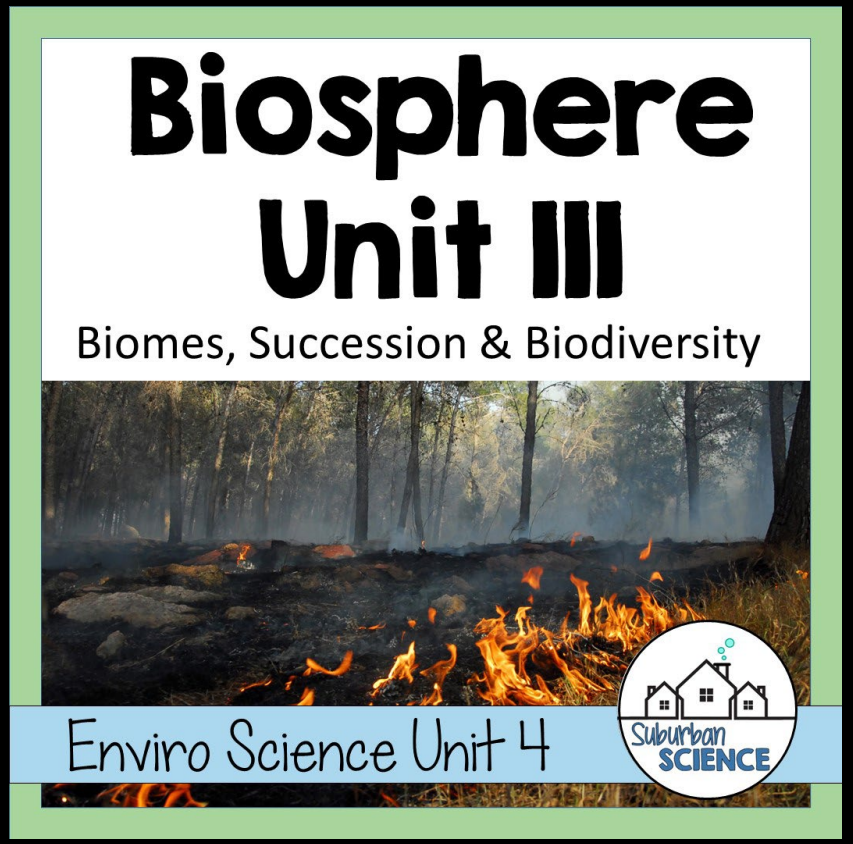
SUSTAINABILITY EDUCATION: INTO THE MAINSTREAM

If countries *were* on track to meet their national 2030 targets:

- **58 million more** children, adolescents, and youth would be in school
- **1.7 million more** primary school teachers would have been trained

- ✔ Progress made
- ✔ Challenges persisting

#1 | A PROBLEM-CENTRIC LEGACY

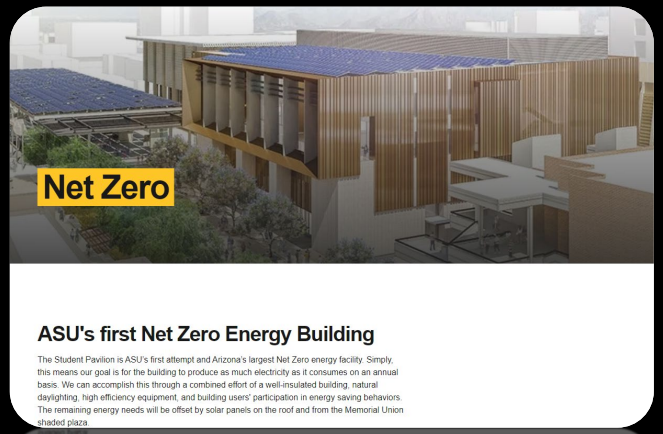


#1 | A PROBLEM-CENTRIC LEGACY

LEUPHANA // UNIVERSITY // SUSTAINABLE UNIVERSITY // **CLIMATE PROTECTION**

CLIMATE COMPENSATED UNIVERSITY

Leuphana University Lüneburg set itself the goal of becoming a climate-neutral university back in 2007. Goals and measures for a climate-neutral university operation were subsequently developed in a research project, integrated into teaching and implemented in the university's daily operations. Part of their concept for climate neutrality was to also include the neighbouring district in the project. The university finally achieved the goal of climate neutrality in 2014 for Scope 1, Scope 2 and part of Scope 3 and has since been climate neutral for the areas of



ASU's first Net Zero Energy Building

The Student Pavilion is ASU's first attempt and Arizona's largest Net Zero energy facility. Simply, this means our goal is for the building to produce as much electricity as it consumes on an annual basis. We can accomplish this through a combined effort of a well-insulated building, natural daylighting, high efficiency equipment, and building users' participation in energy saving behaviors. The remaining energy needs will be offset by solar panels on the roof and from the Memorial Union shaded plaza.

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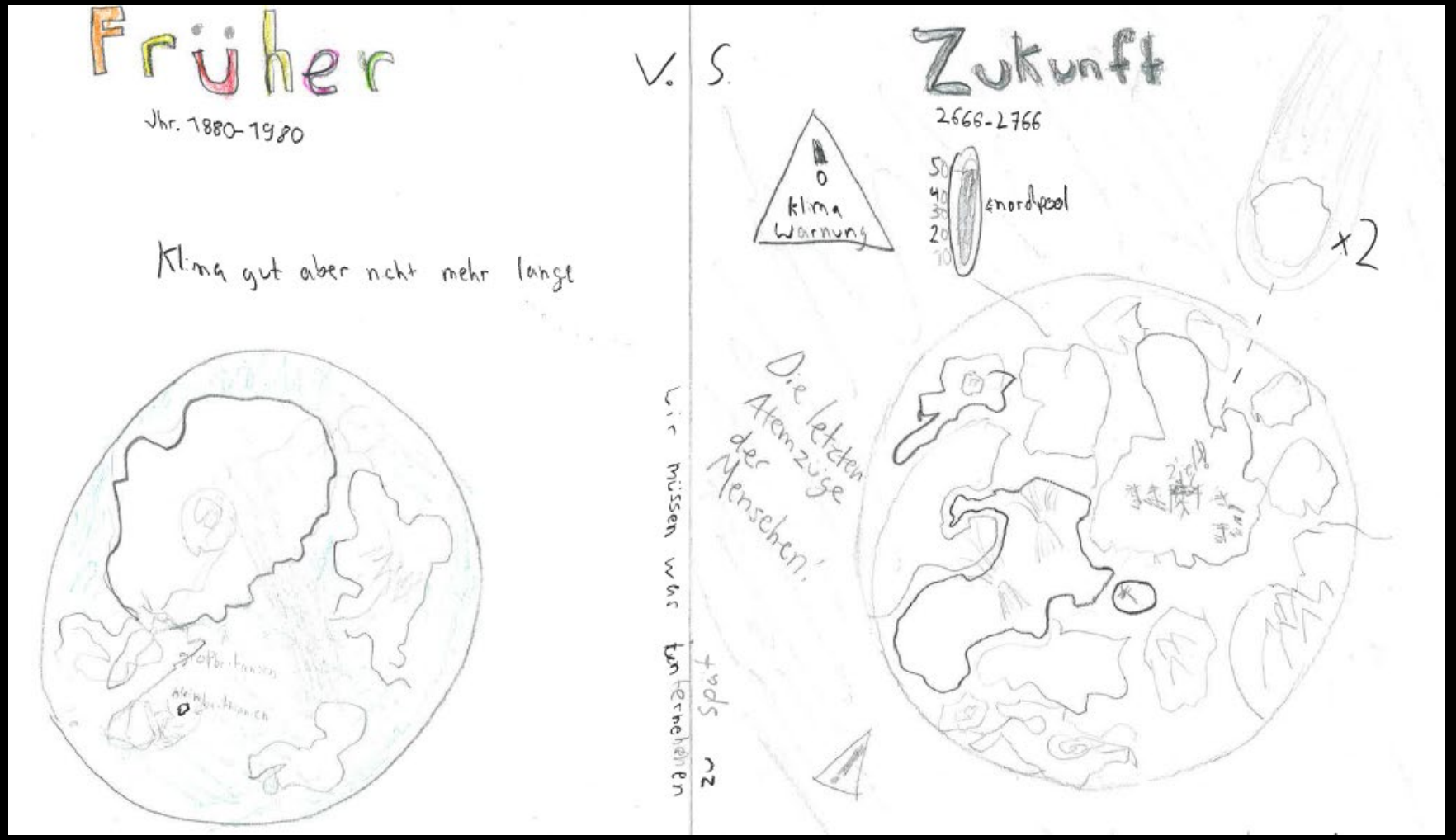

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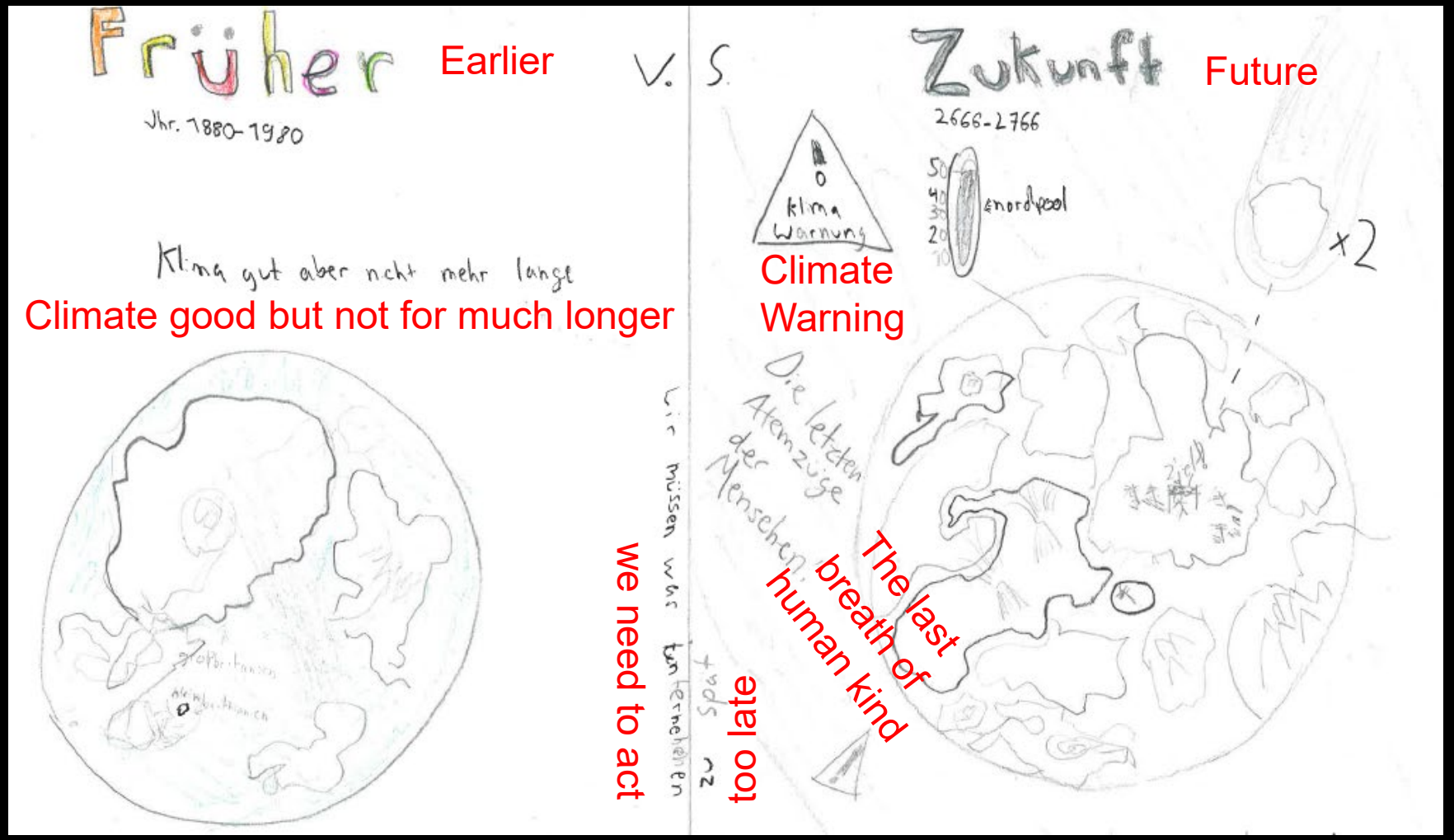

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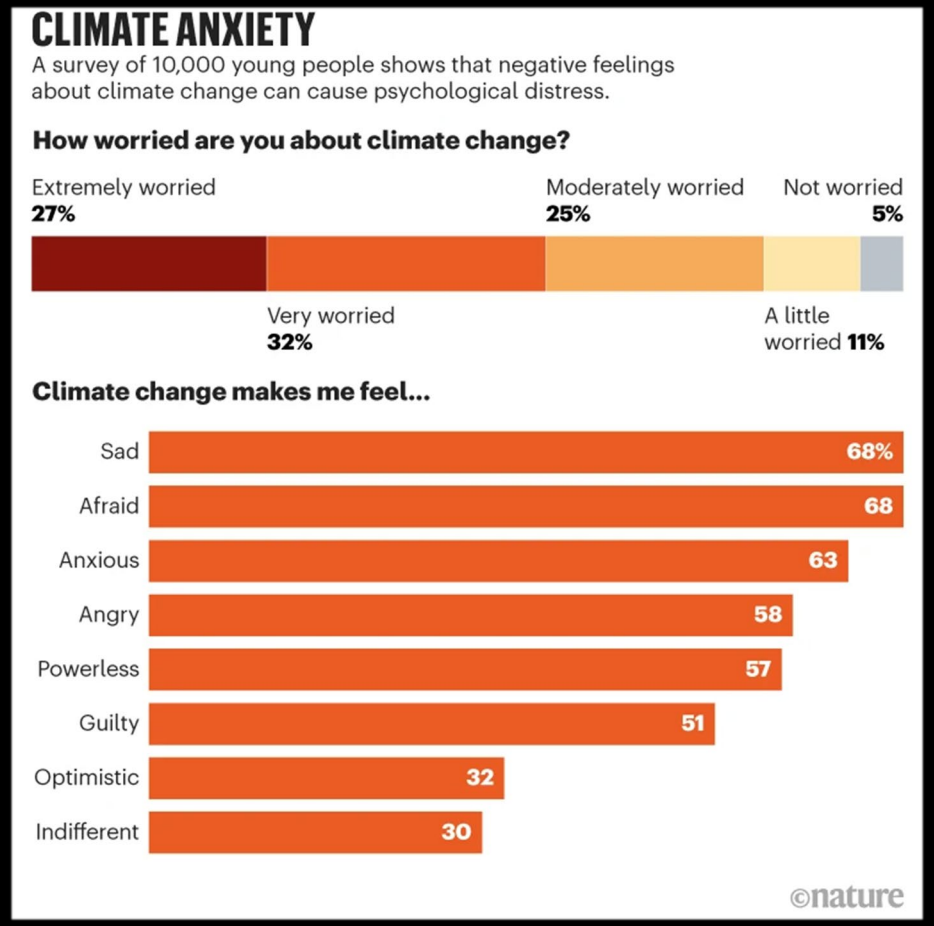
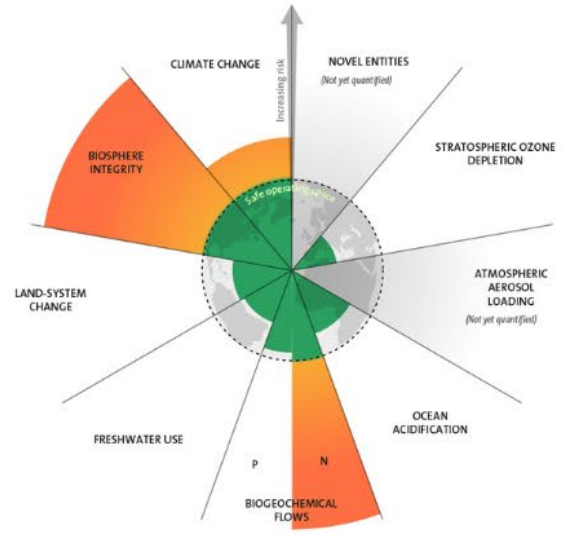


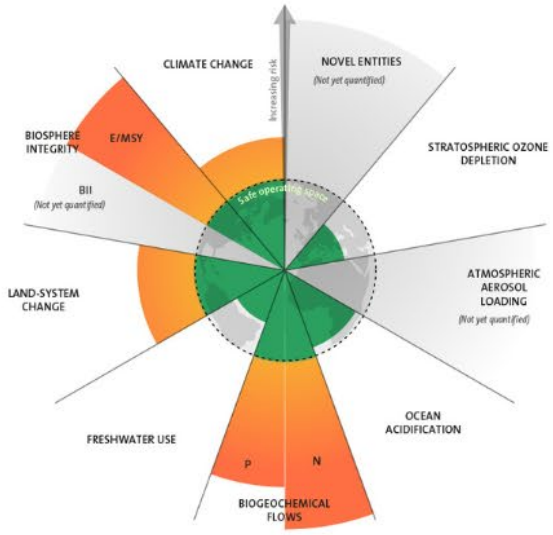
#1 | A PROBLEM-CENTRIC LEGACY

2009



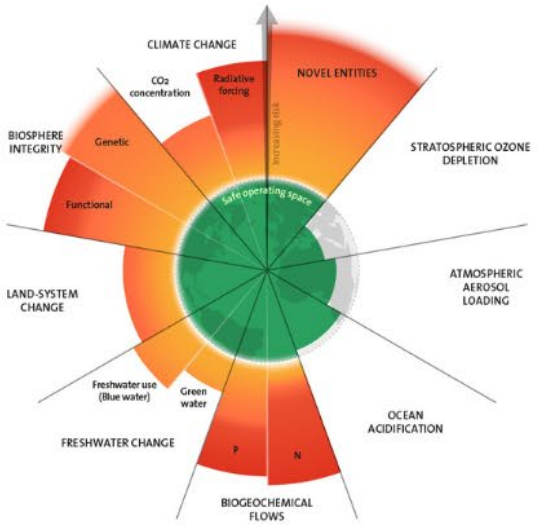
7 boundaries assessed,
3 crossed

2015



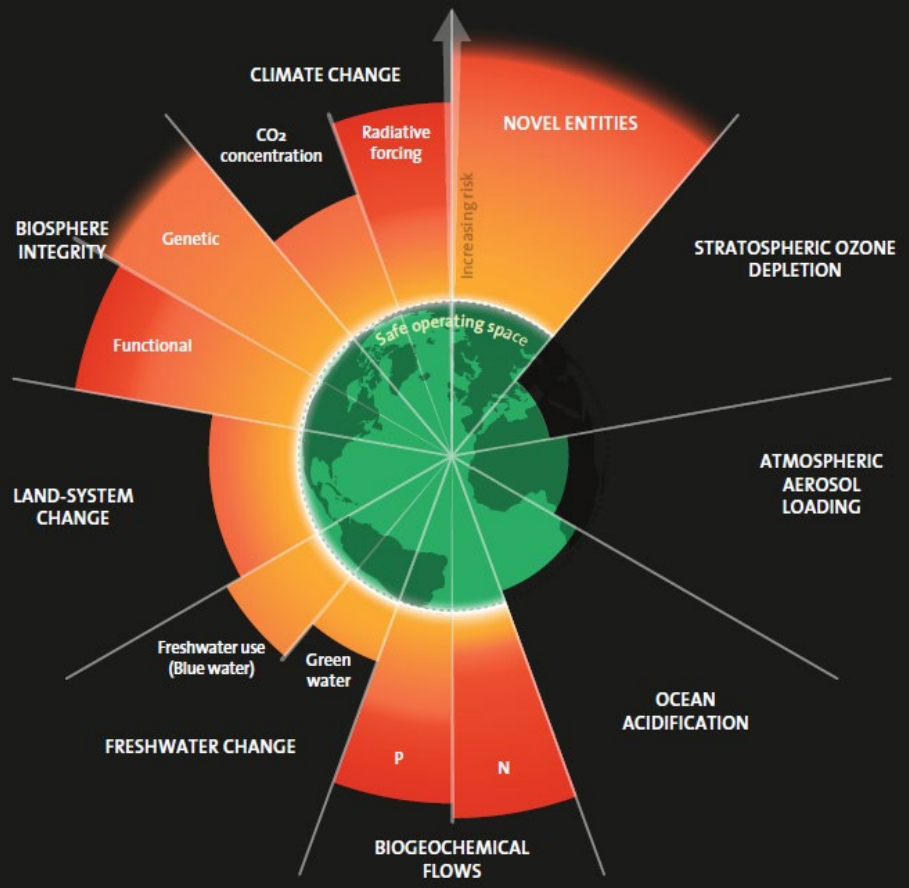
7 boundaries assessed,
4 crossed

2023

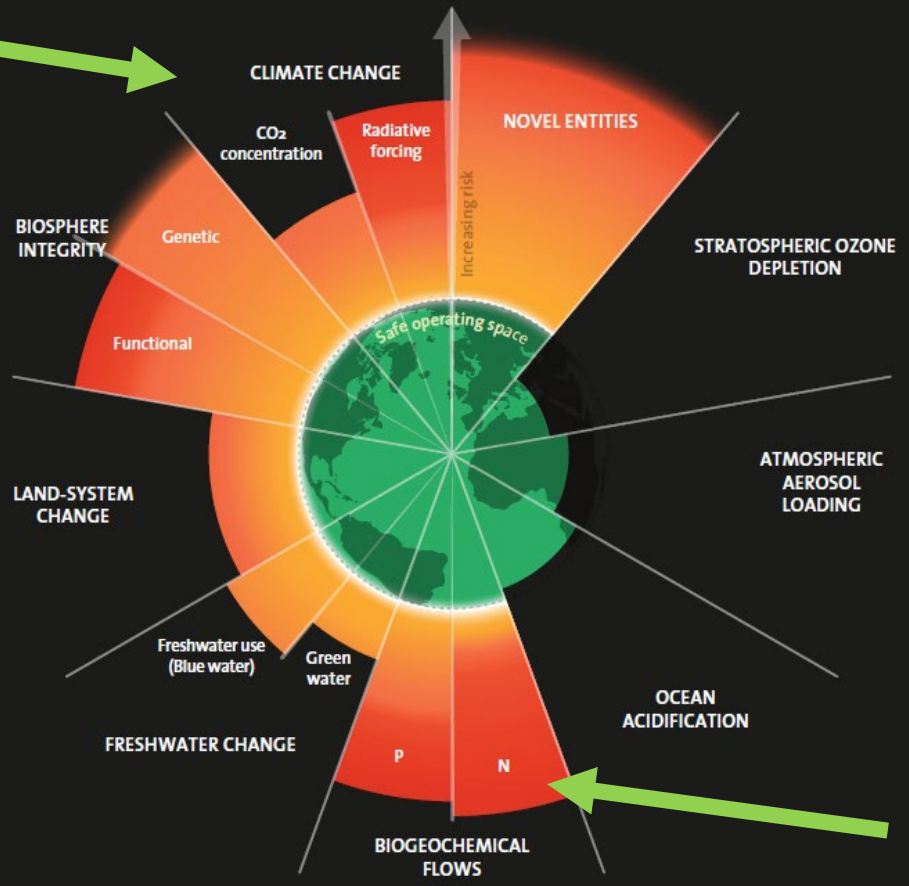


9 boundaries assessed,
6 crossed

#1 | A PROBLEM-CENTRIC LEGACY



#2 | CONTESTED AND IDEOLOGICALLY CHARGED



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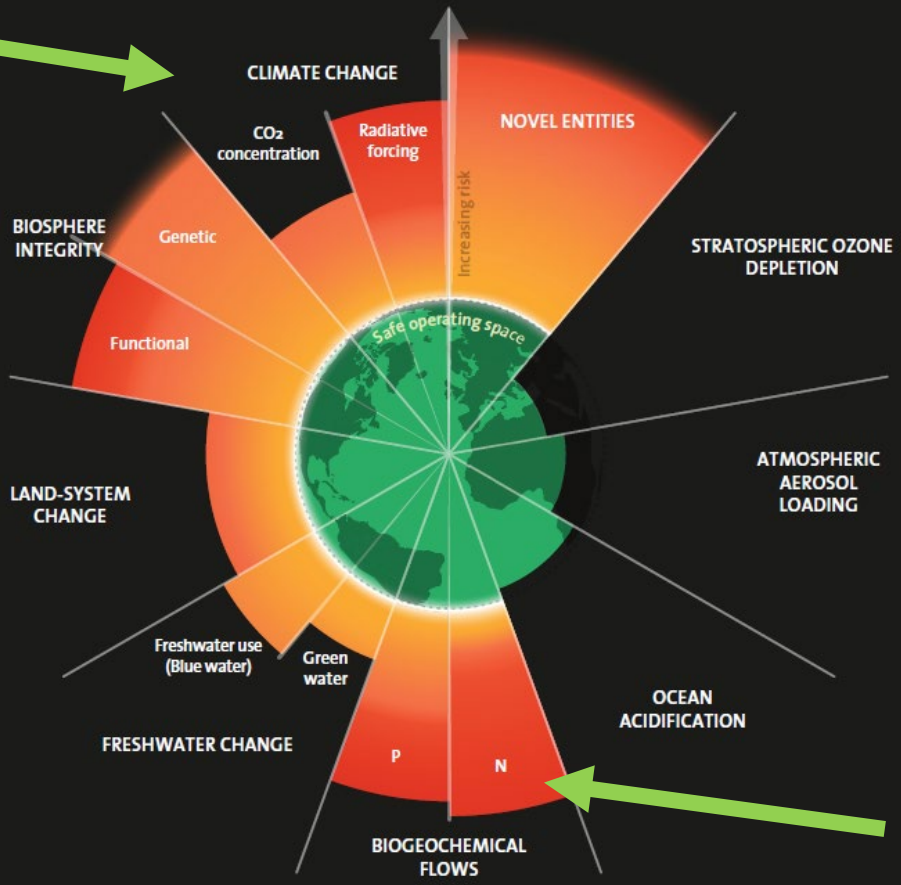


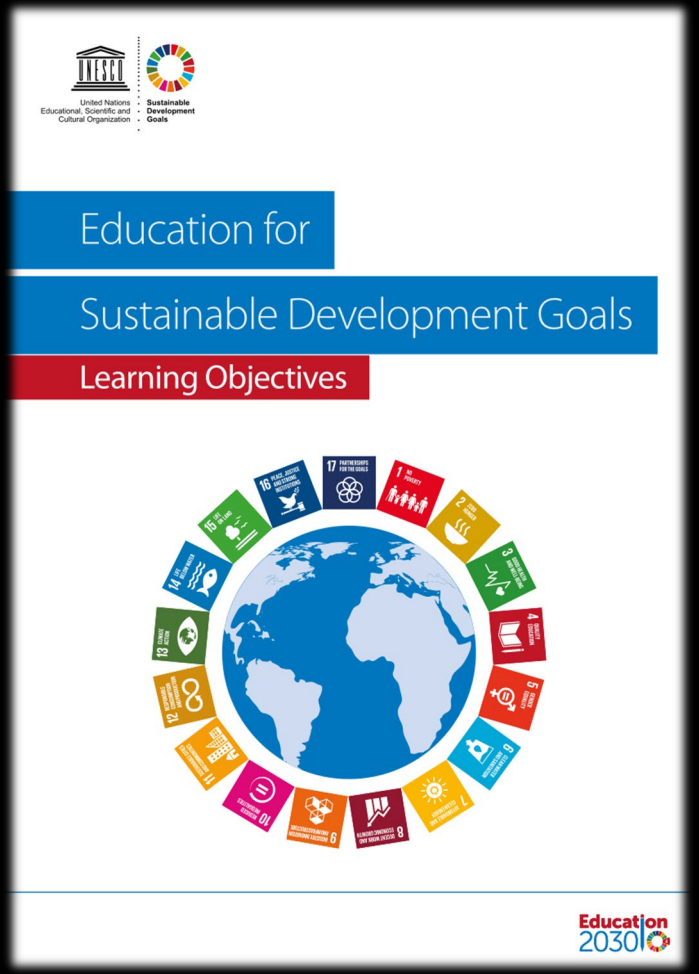
Affective polarization:
Groups that differ ideologically in their views feel hostile to each other
(Bersoff, 2024)

#2 | CONTESTED AND IDEOLOGICALLY CHARGED

My tummy belongs to me

Barbeque? I like it!

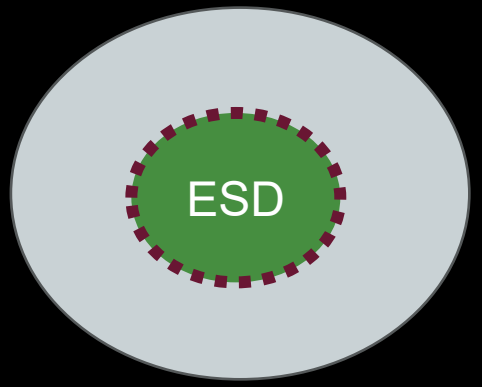
#3 | CONCEPTUALLY ELUSIVE



#3 | CONCEPTUALLY ELUSIVE

What at its core is ESD?

How to avoid „anything goes“ and token ESD?



PERSISTING CHALLENGES

ESD as relevant quality education

Needs-based Sustainability Education

WHY NEEDS?

Sustainable development

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

It contains within it two key concepts::

- the concept of **'needs'**, in particular the essential needs of the world's poor, to which overriding priority should be given;
- the **idea of limitations** imposed by the state of technology and social organization on the environment's ability to **meet present and future needs**.

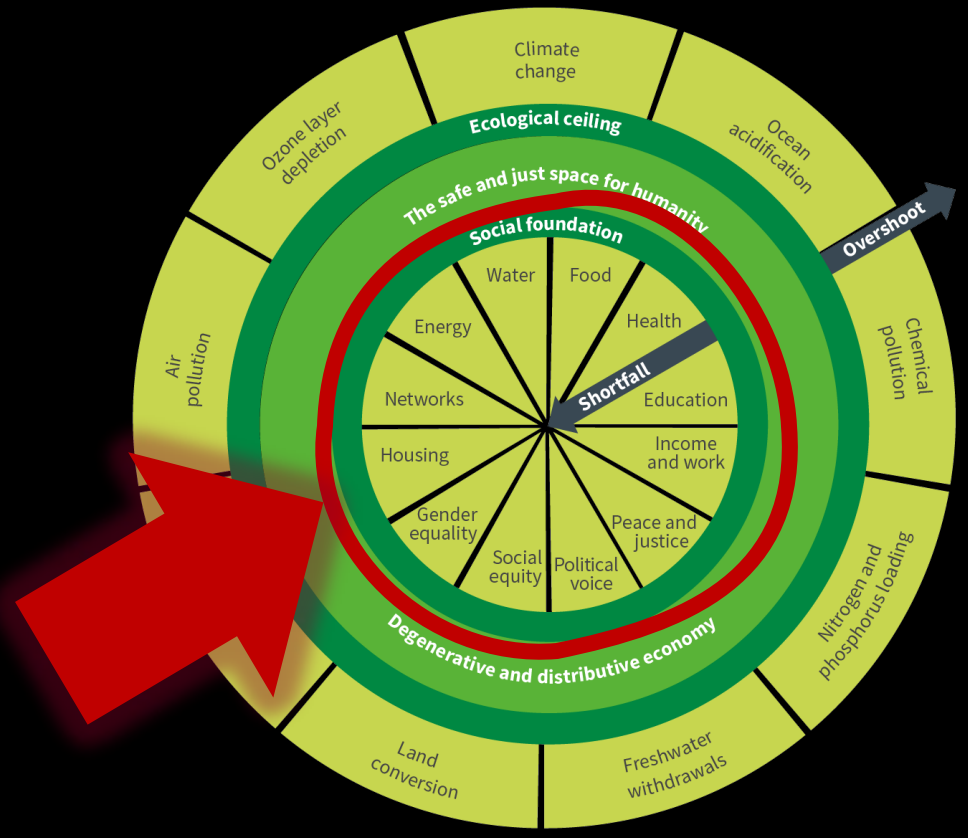
IN OUR HANDS
EARTH SUMMIT '92

OUR COMMON FUTURE

THE WORLD COMMISSION
ON ENVIRONMENT
AND DEVELOPMENT

ifhe.org/united-nations

NEEDS & SUSTAINABILITY



NEEDS & SUSTAINABILITY


ENVIRONMENTAL CEILING
SOCIAL FOUNDATION

FUNDAMENTAL HUMAN NEEDS

Manfred Max-Neef

FUNDAMENTAL HUMAN NEEDS

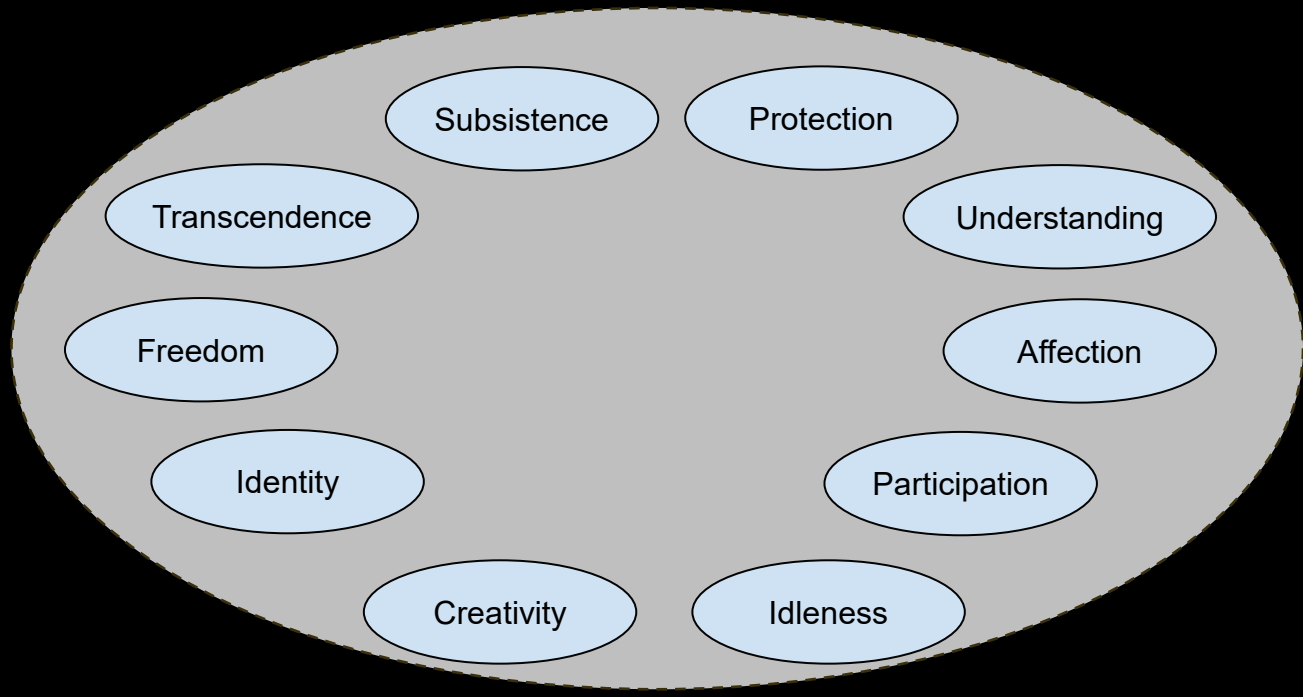
Manfred Max-Neef (1932-2019)

- Needs ≠ satisfier

FUNDAMENTAL HUMAN NEEDS

Manfred Max-Neef (1932-2019)

- Needs ≠ satisfier
- Needs are limited and universal

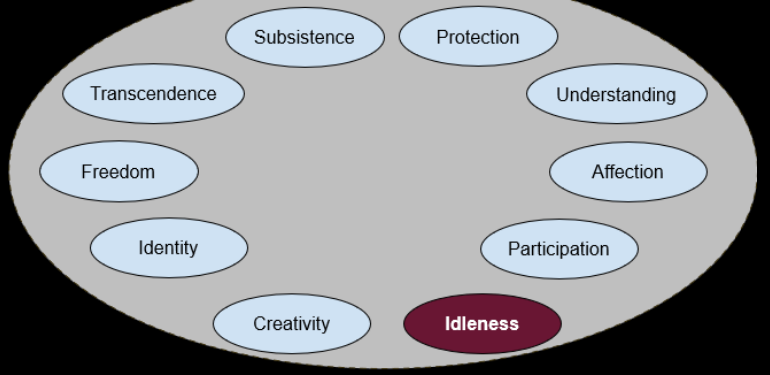


FUNDAMENTAL HUMAN NEEDS

Manfred Max-Neef (1932-2019)

- Needs ≠ satisfier
- Needs are limited and universal
- Satisfiers are infinite and change

NEEDS AND SATISFIERS: EXAMPLE



After a hard day at work:
need for idleness

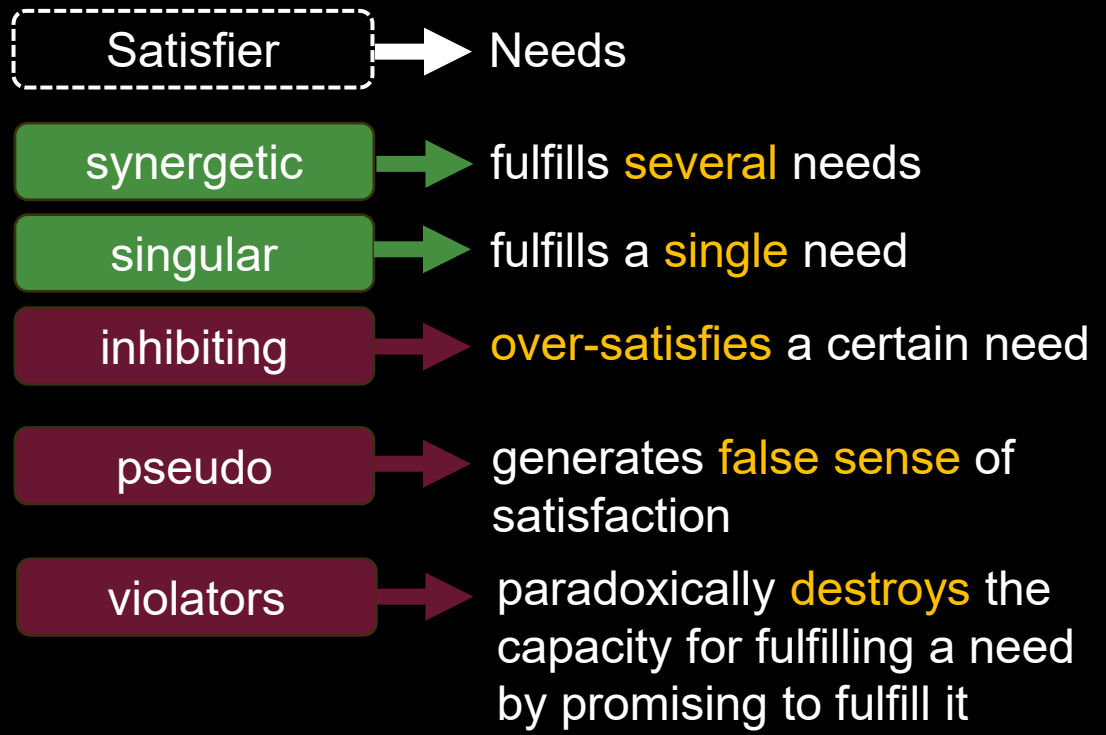
Satisfiers

Take piano lessons in community college
Go for a neighborhood walk with a friend
Meditate
Socialize in the community center
Take a bath
Watch random TV show
Shop some clothes
Use drugs
…

FUNDAMENTAL HUMAN NEEDS

Manfred Max-Neef (1932-2019)

- Needs ≠ satisfier
- Needs are limited and universal
- Satisfiers are infinite and change
- Not all satisfiers are equally good at satisfying needs



FUNDAMENTAL HUMAN NEEDS

Manfred Max-Neef (1932-2019)

- Needs ≠ satisfier
- Needs are limited and universal
- Satisfiers are infinite and change
- Not all satisfiers are equally good at satisfying needs

Cultural change *is, among other things, the consequence of* ***dropping traditional satisfiers for the purpose of adopting new or different ones****.*

(Max-Neef 1992: 200)

Satisfier	→	Needs
synergetic	→	fulfills several needs
singular	→	fulfills a single need
inhibiting	→	over-satisfies a certain need
pseudo	→	generates false sense of satisfaction
violators	→	paradoxically destroys the capacity for fulfilling a need by promising to fulfill it

NEEDS SATISFACTION IN RESEARCH

Used for **modelling**:

- most efficent ways to meet human needs

Global Environmental Change 69 (2021) 102287

Contents lists available at ScienceDirect

Global Environmental Change

journal homepage: www.elsevier.com/locate/gloenvcha

Socio-economic conditions for satisfying human needs at low energy use: An international analysis of social provisioning

Jefim Vogel [a,*], Julia K. Steinberger [b,a], Daniel W. O'Neill [a], William F. Lamb [c,a], Jaya Krishnakumar [d]

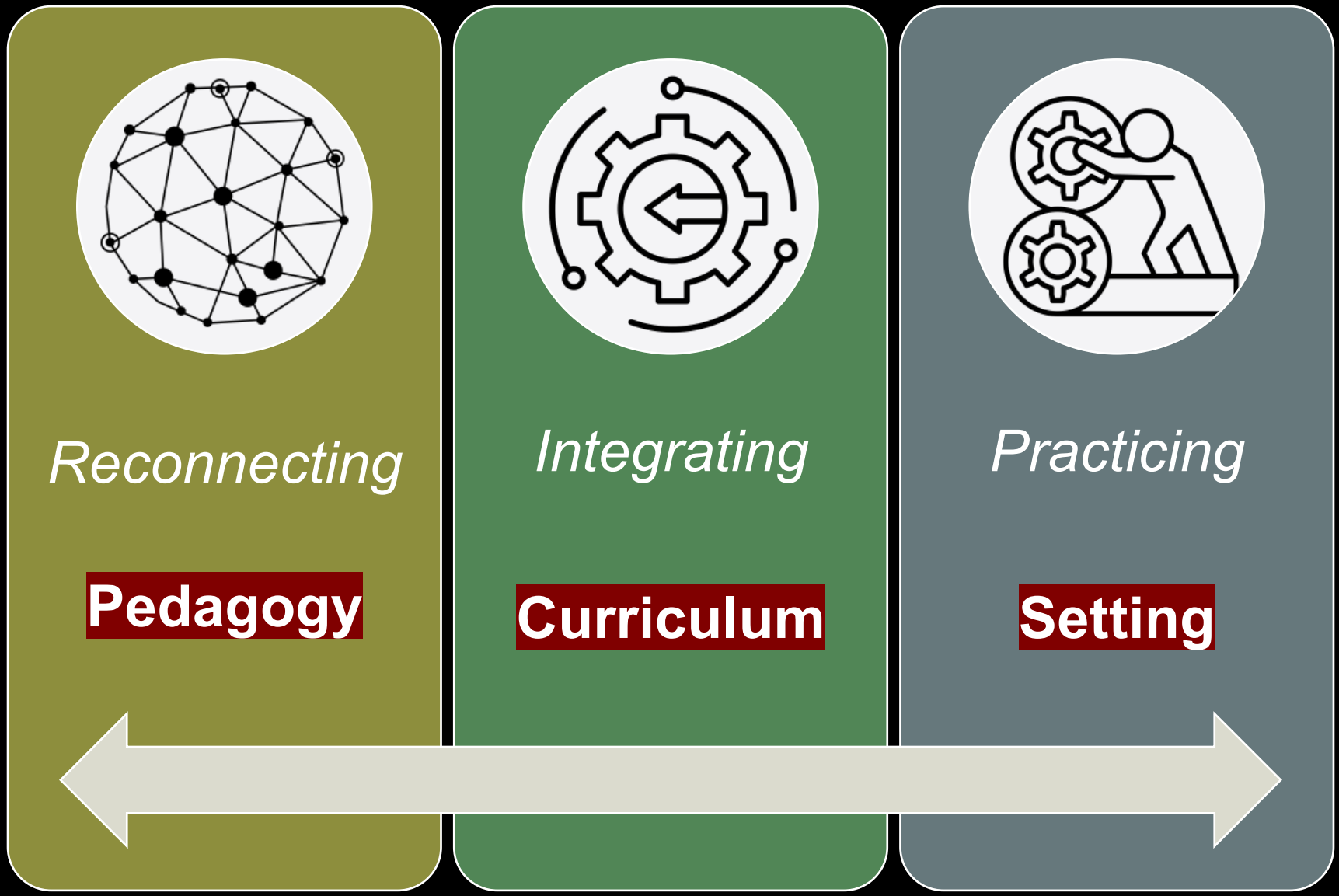
[a] Sustainability Research Institute, School of Earth and Environment, University of Leeds, UK
[b] Institute of Geography and Sustainability, Faculty of Geosciences and Environment, University of Lausanne, Switzerland
[c] Mercator Research Institute on Global Commons and Climate Change, Berlin, Germany
[d] Institute of Economics and Econometrics, Geneva School of Economics and Management, University of Geneva, Switzerland

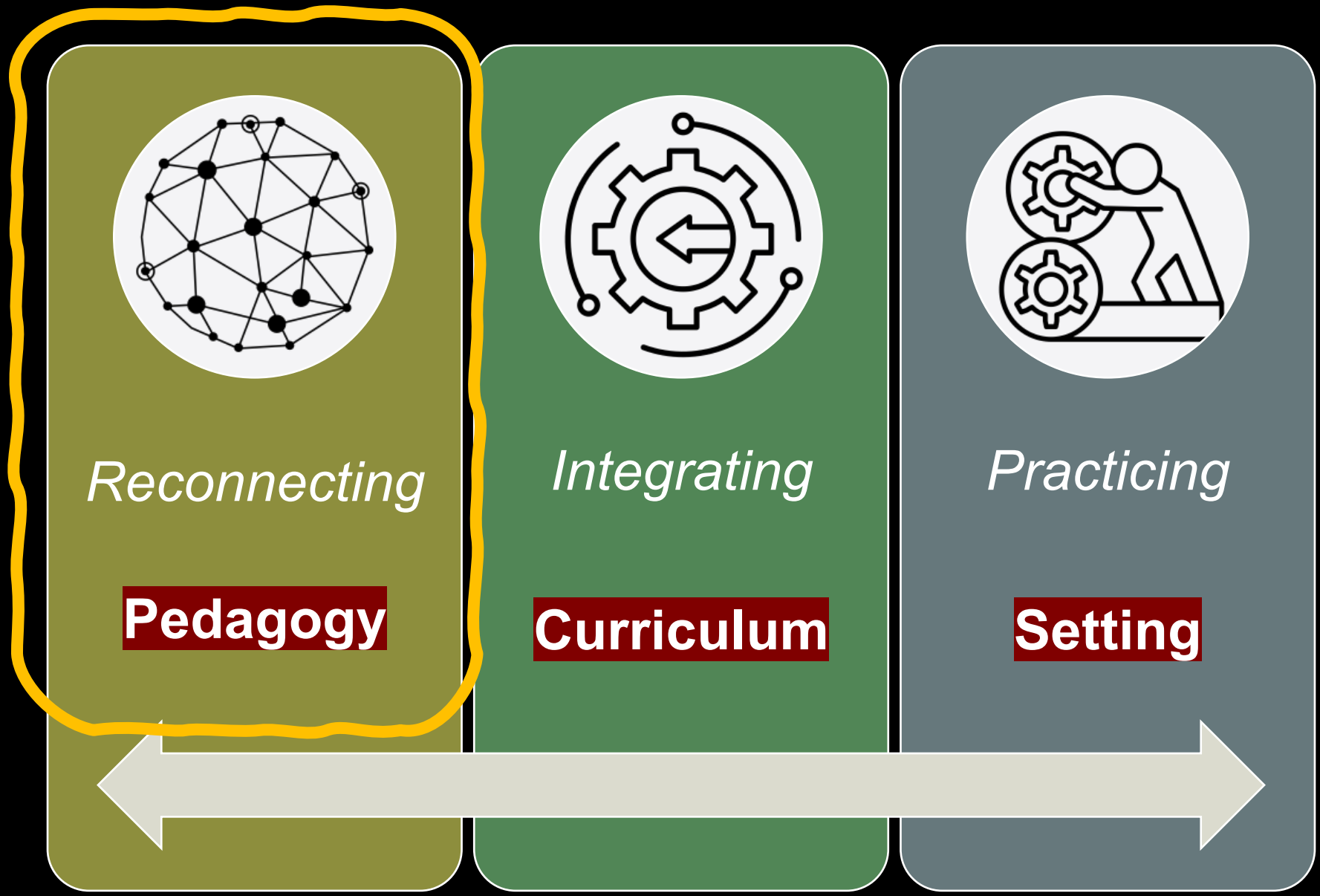
Used for **deliberation**:

- consumption corridors: define minima and maxima consumption

What can we learn from this for a

Needs-based Sustainability Education?


Reconnecting
Pedagogy
Integrating
Curriculum
Practicing
Setting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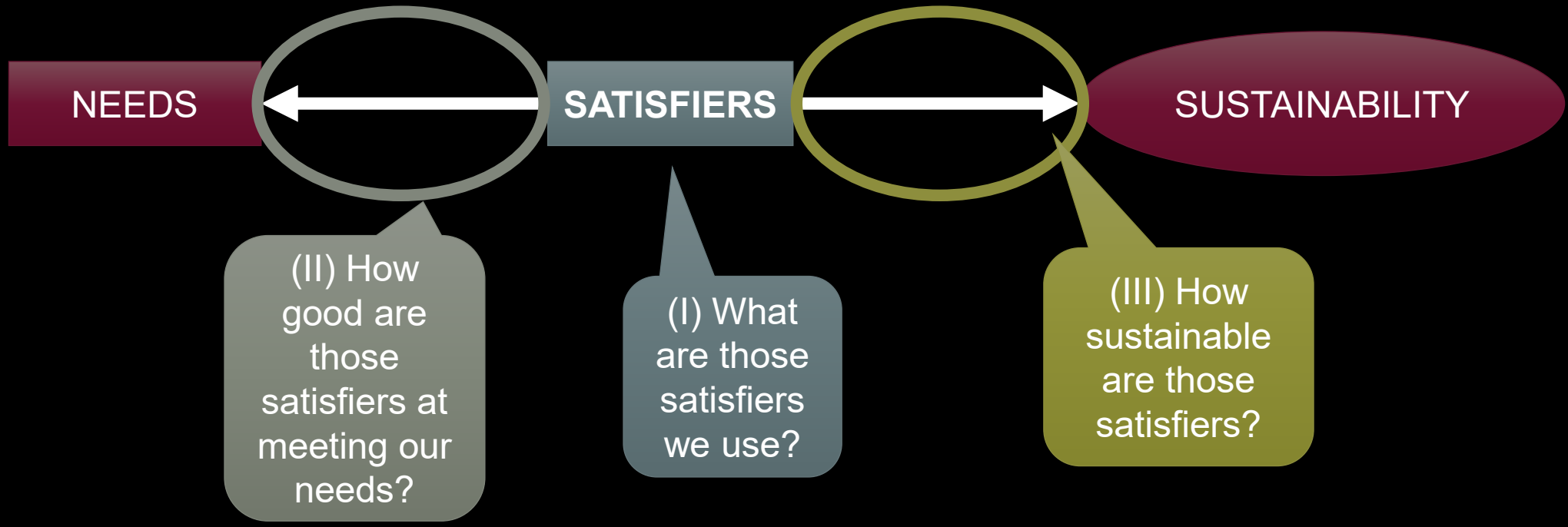
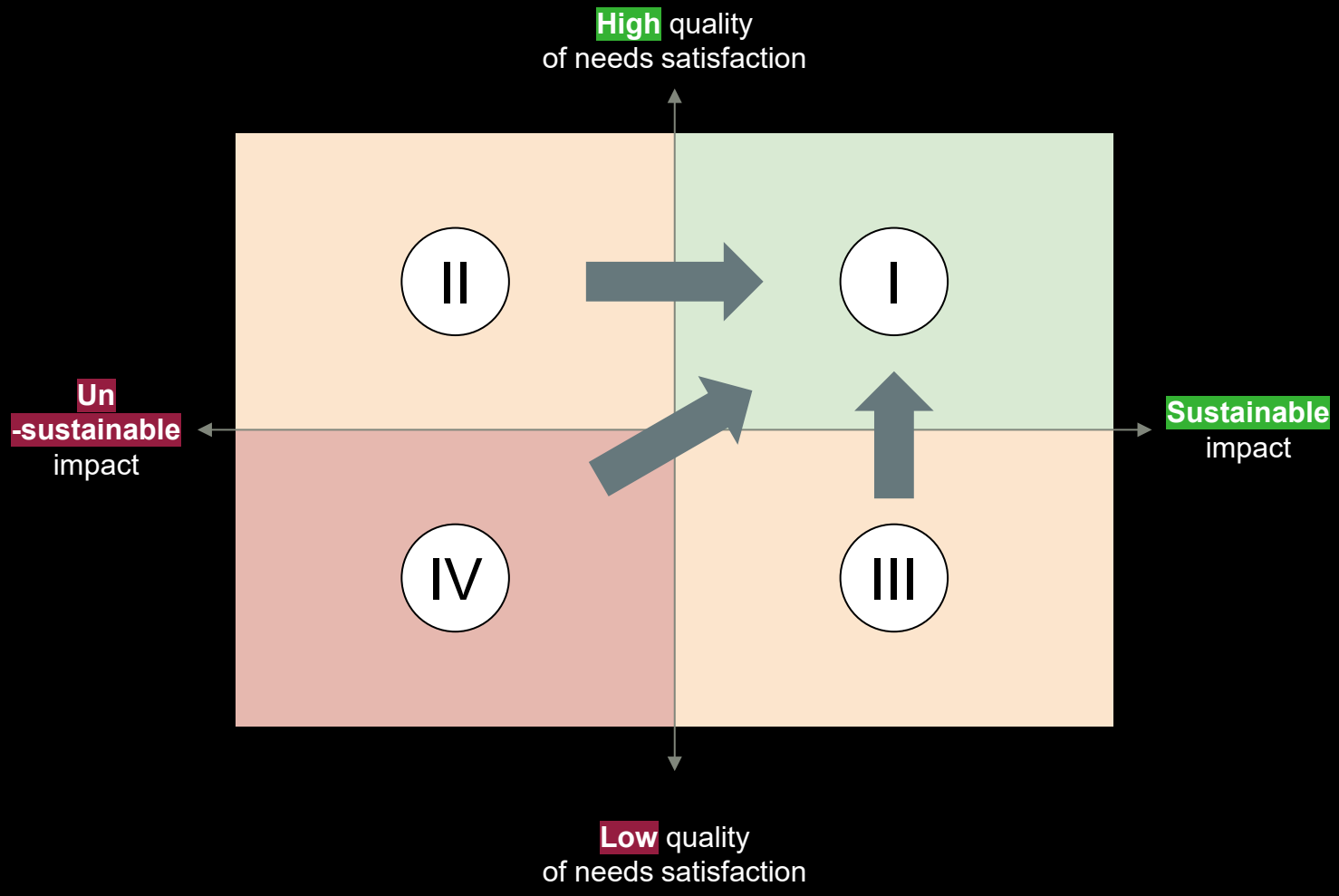
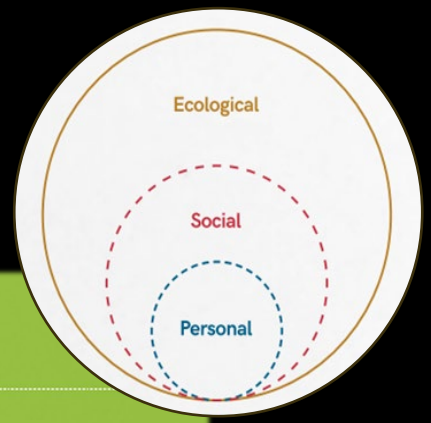
RECONNECTING | PEDAGOGY | REFLEXIVITY



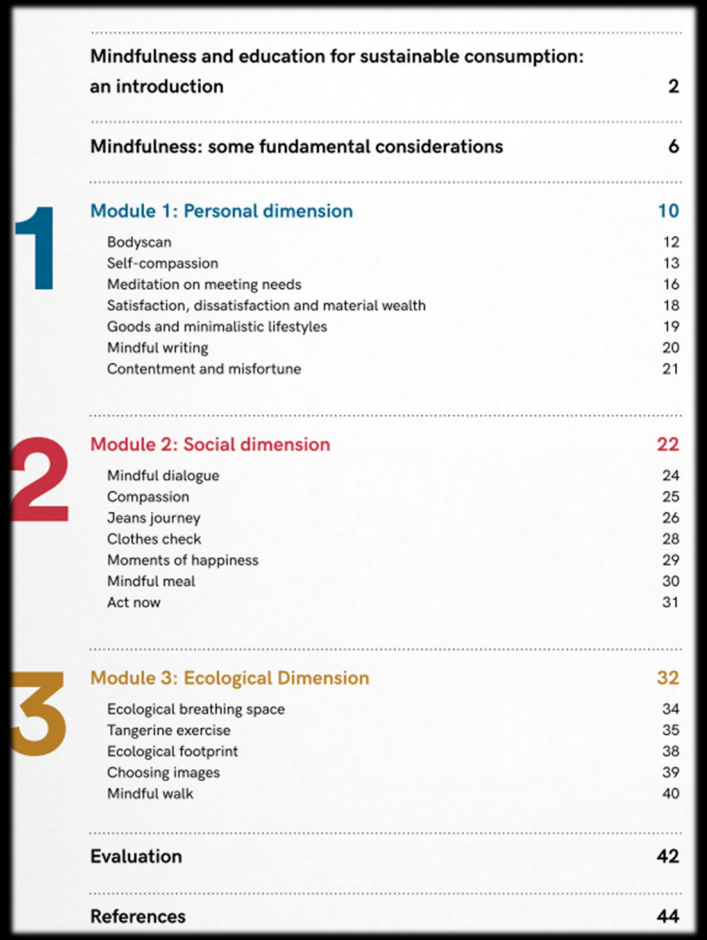
RECONNECTING | PEDAGOGY | REFLEXIVITY

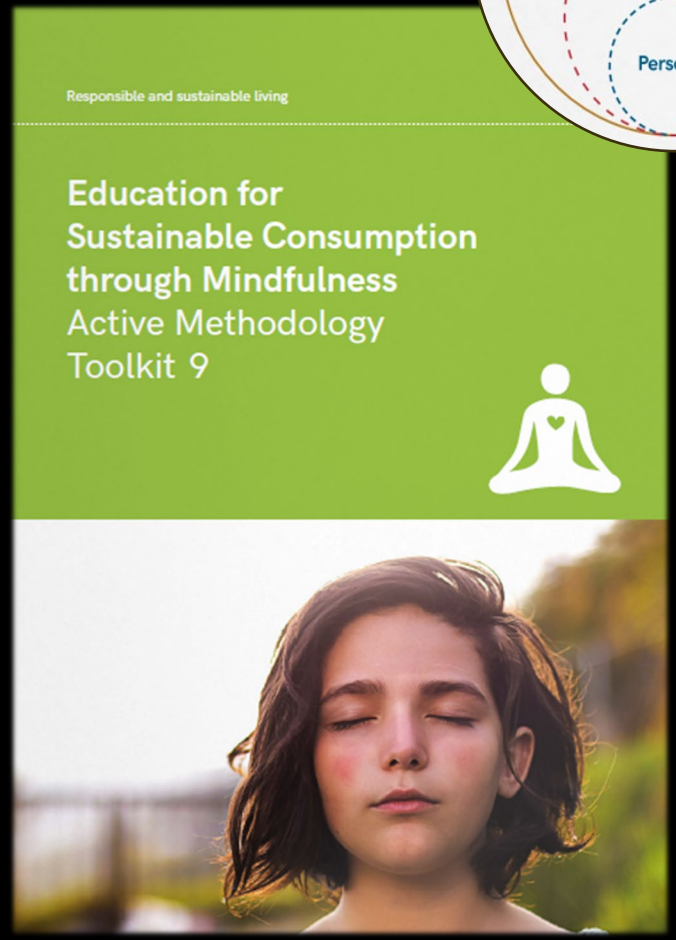


RECONNECTING | PEDAGOGY | MINDFULNESS

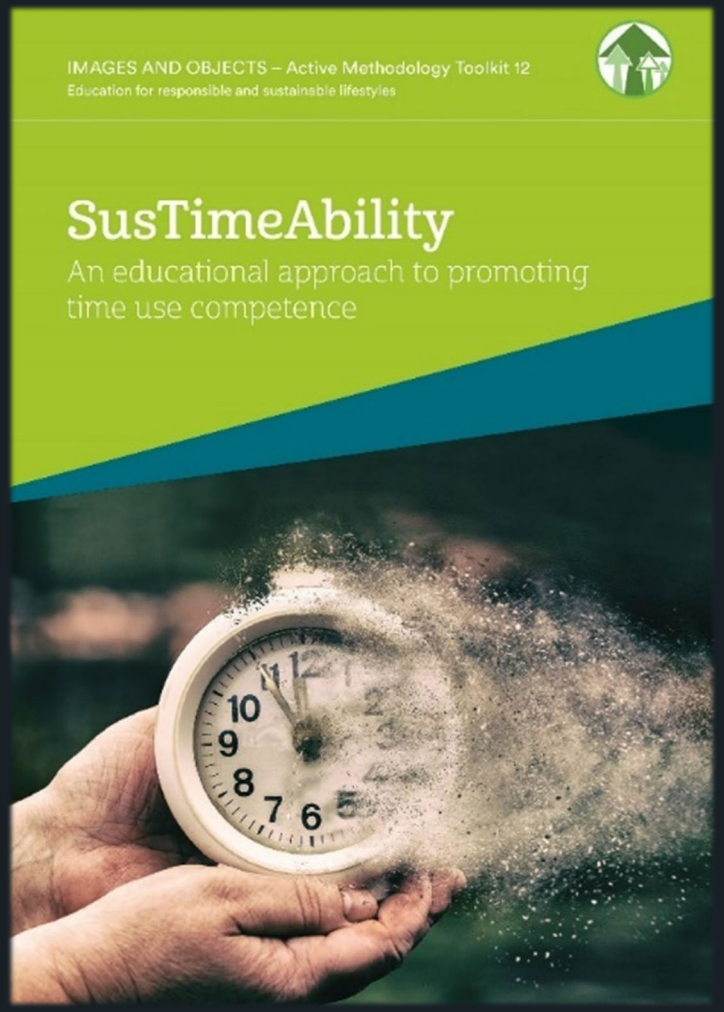


- **Mindfulness** to train introspection skills and awareness of inner states and processes.
- **Approach**: Modular, accessible, adaptable, playful, „light“ and cautious





RECONNECTING | PEDAGOGY



IDGs:

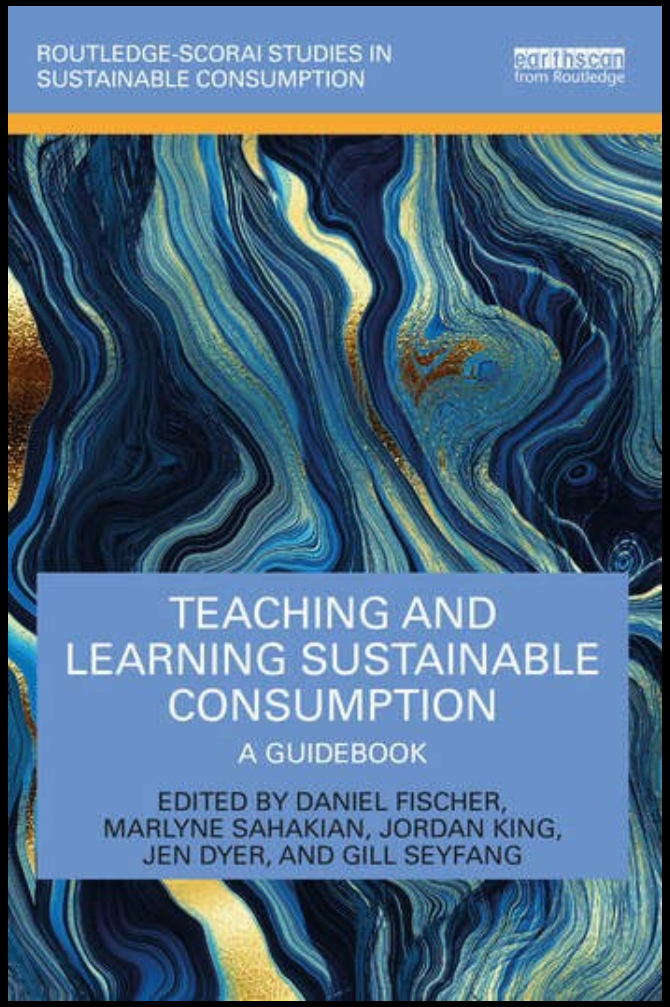
Inner Development Goals

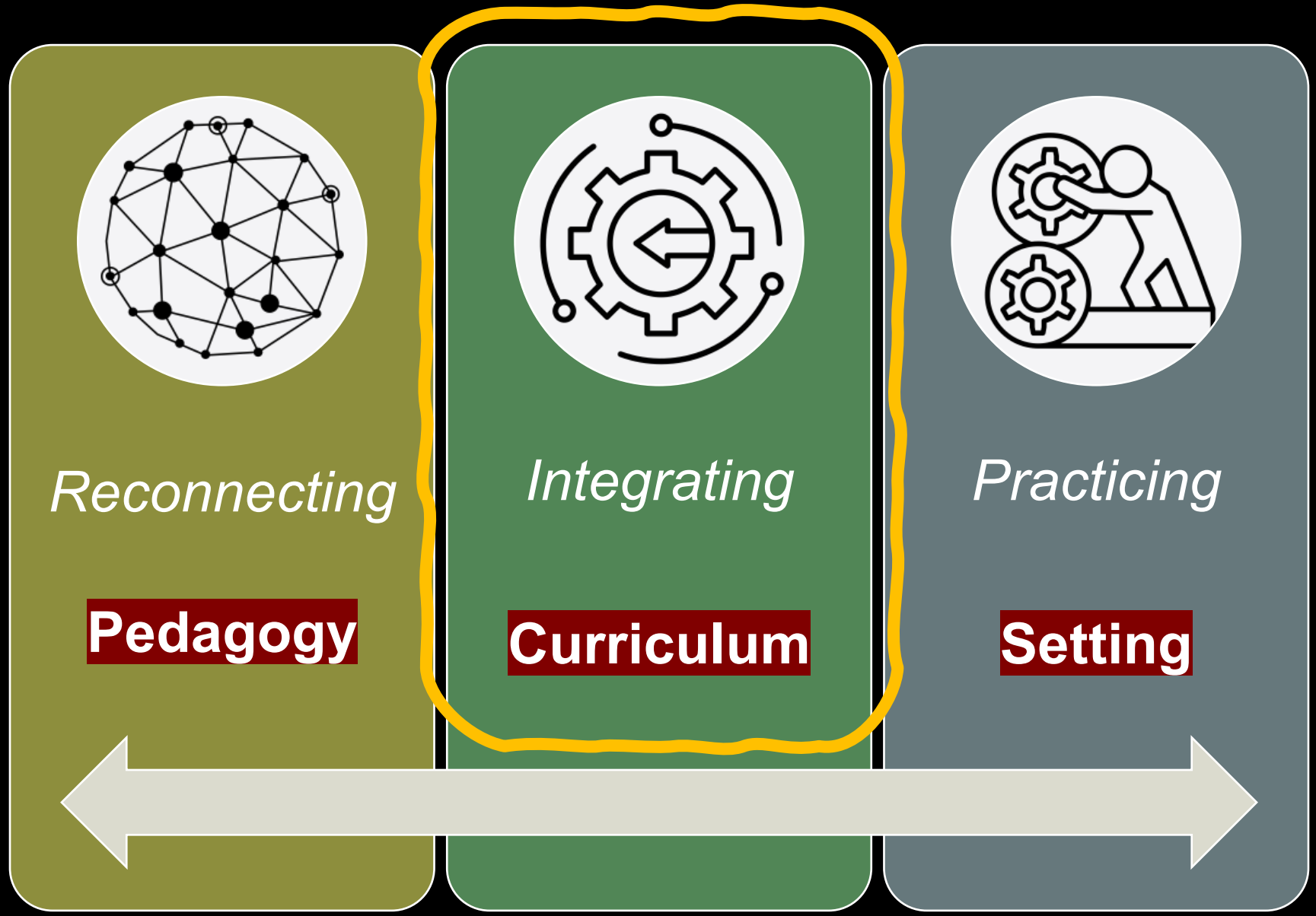
TEACHING AND LEARNING APPROACHES

Collection of 57 diverse examples of innovative teaching from across the world

Guidebook: background chapters on

- learning objectives,
- pedagogies & learning theories
- assessment

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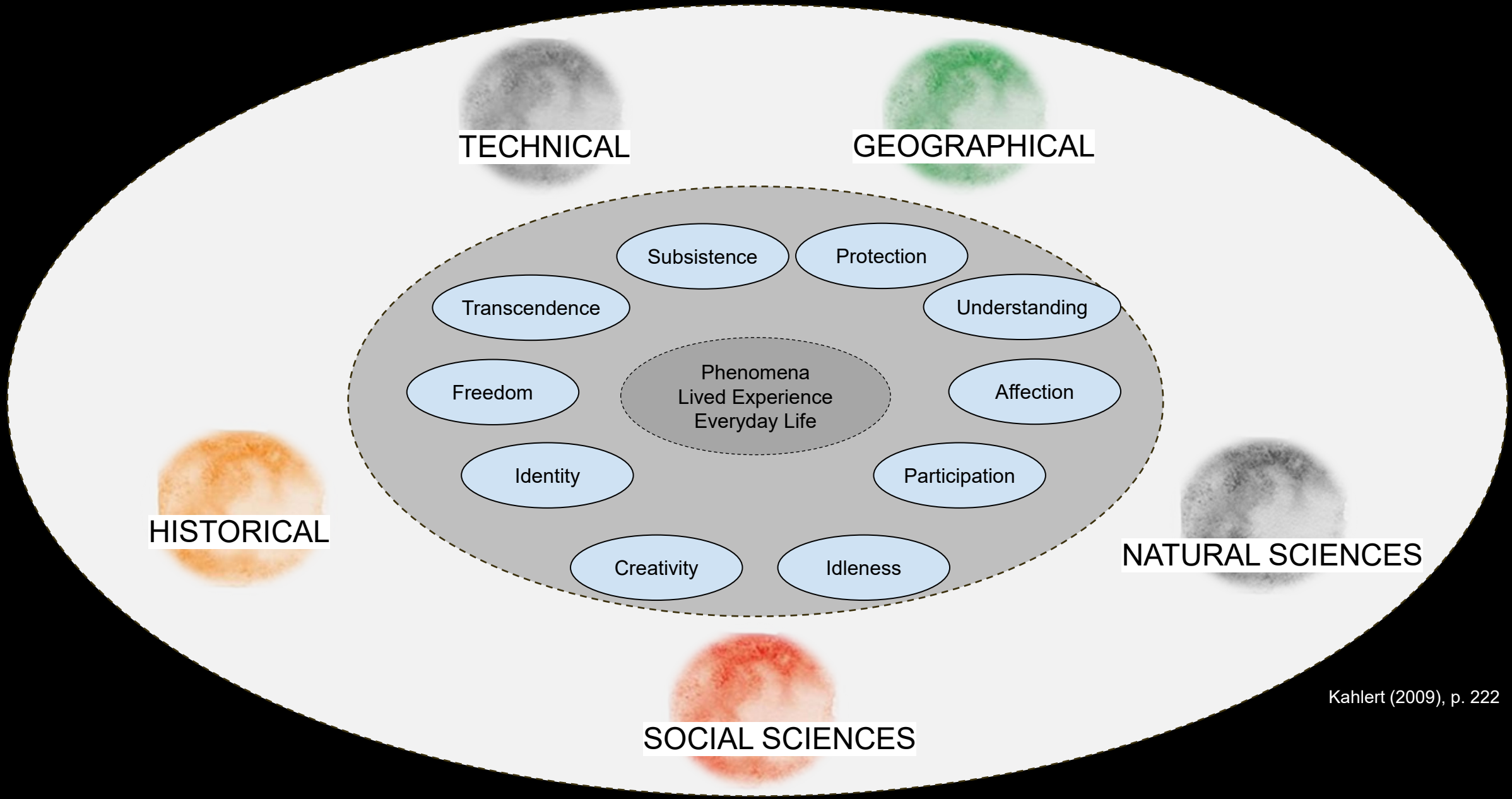
Setting

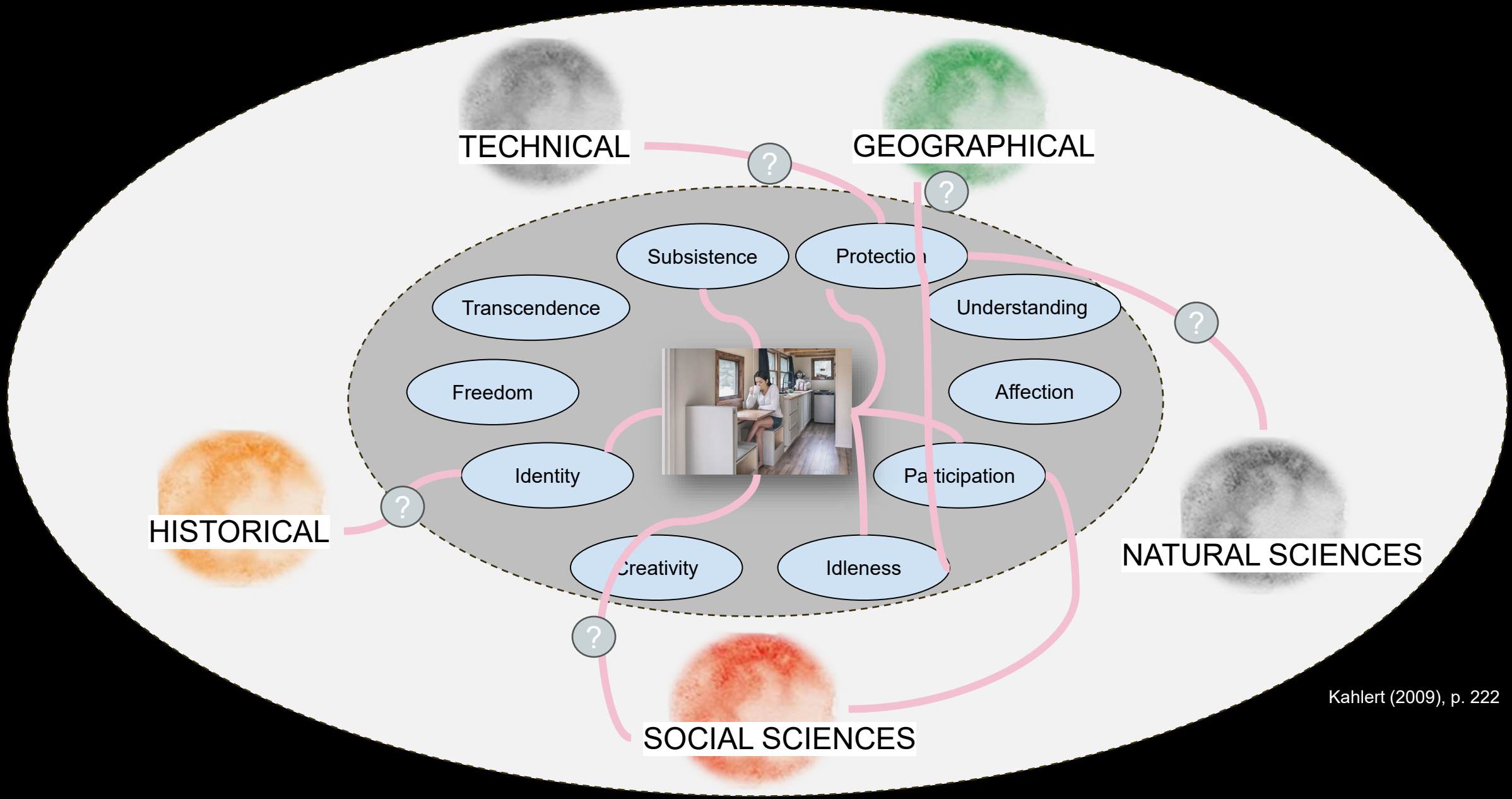
INTEGRATING | CURRICULUM

Example

- Pre-Service Teacher Education
- **Subject**: **Sachunterricht**
- Mandatory in all German elementary education
- Integrative subject: Science education + social studies, home of „home economics“
- „Multi-perspectivity“ as guiding principle



Kahlert (2009), p. 222



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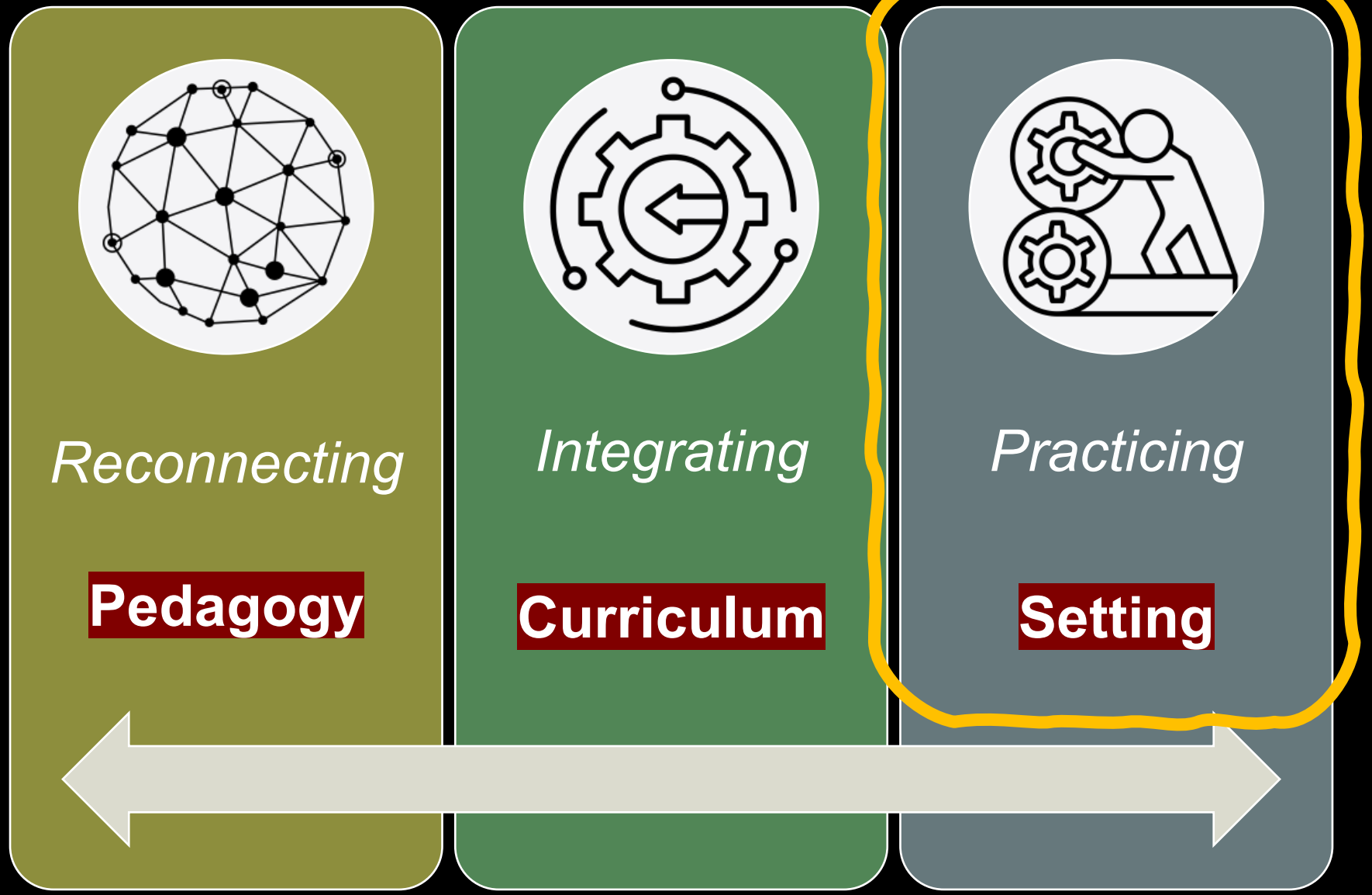
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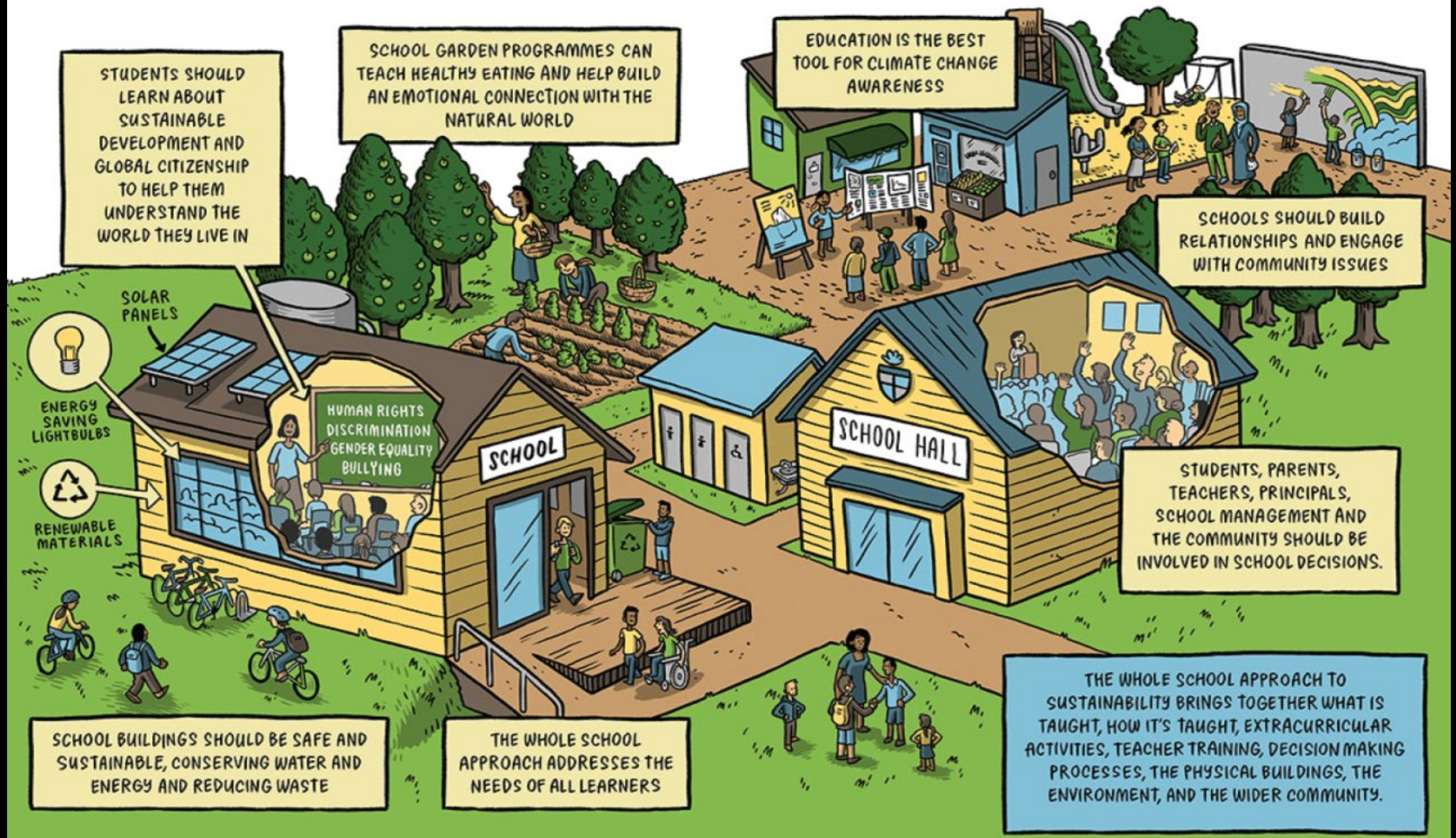
Sustainability is not just something to learn, it's something to live!



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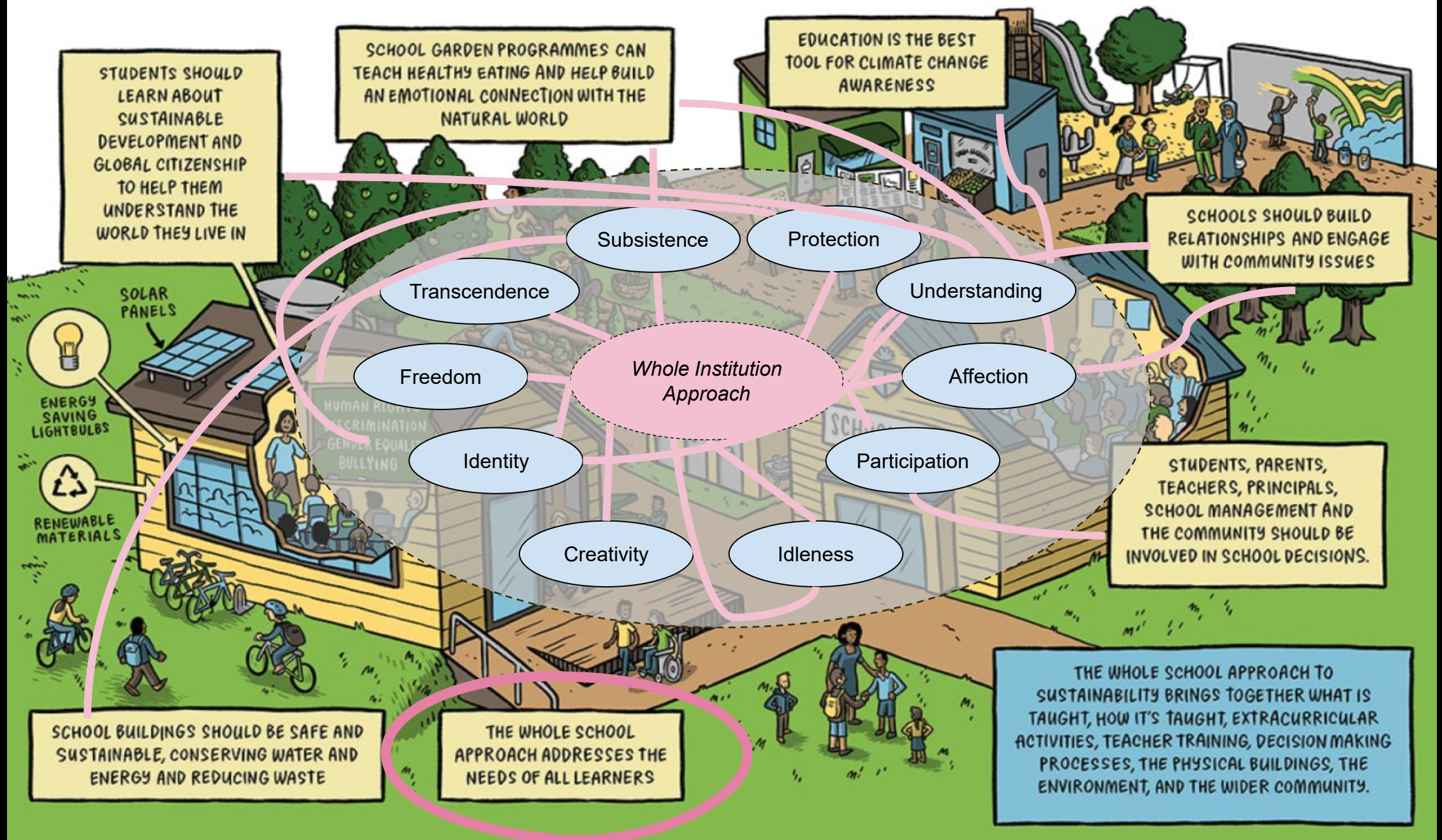


Sustainability is not just something to learn, it's something to live!

Whole Institution Approaches to Sustainability in Education

Sustainability Science
https://doi.org/10.1007/s11625-024-01506-5

ORIGINAL ARTICLE

Whole Institution Approach: measurable and highly effective in empowering learners and educators for sustainability

Jorrit Holst[1] · Julius Grund[1] · Antje Brock[1]

Received: 24 July 2023 / Accepted: 4 April 2024

„Learners experiencing **more sustainable WIA** feel strongly more motivated and empowered to contribute to sustainability“

(Holst et al., 2024)

THE WHOLE SCHOOL APPROACH TO SUSTAINABILITY BRINGS TOGETHER WHAT IS TAUGHT, HOW IT'S TAUGHT, EXTRACURRICULAR ACTIVITIES, TEACHER TRAINING, DECISION MAKING PROCESSES, THE PHYSICAL BUILDINGS, THE ENVIRONMENT, AND THE WIDER COMMUNITY.

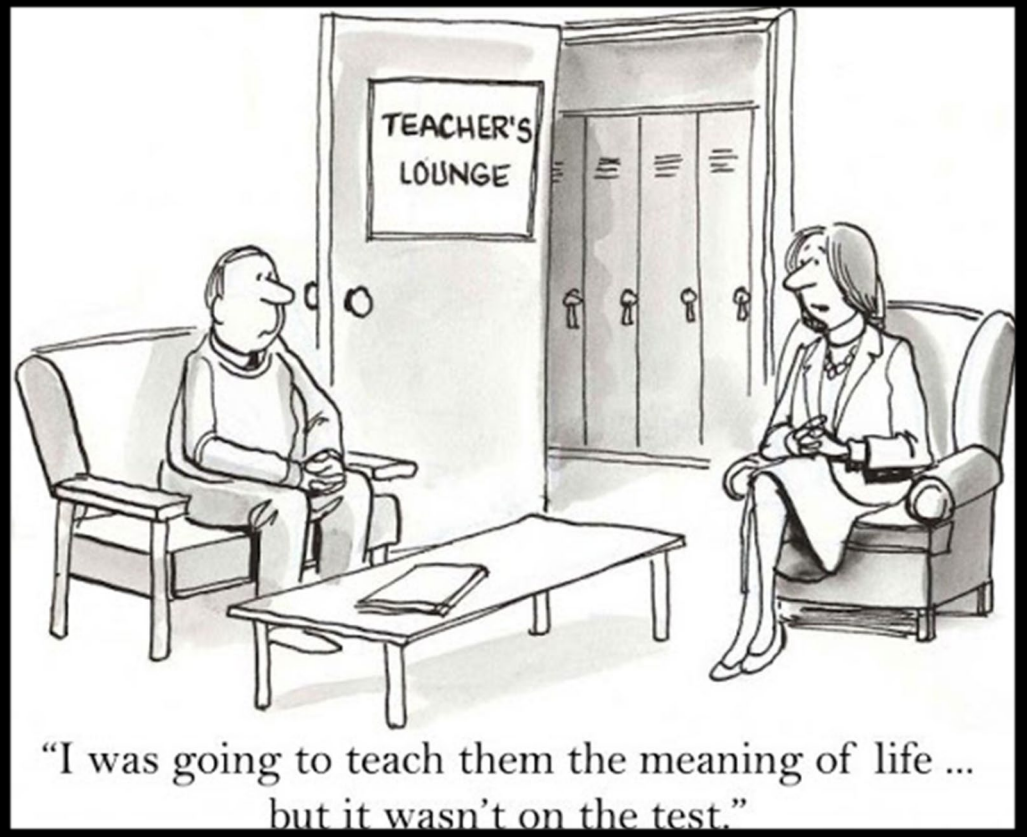
PRACTICING | SETTING | ASSESSMENT

PRACTICING | SETTING | ASSESSMENT

On average across OECD countries:

- **66%** of students reported feeling stressed about poor grades
- **59%** reported that they often worry that taking a test will be difficult.
- **55%** of students feel very anxious about school testing, even when they are well prepared.

(Pascoe et al. 2020)



How can assessment not jeopardize but better reflect and support the aspirations of ESD?

PRACTICING | SETTING | ASSESSMENT

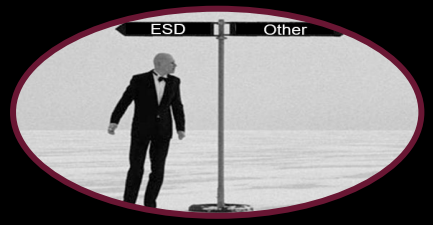
Examples

- Student-led rubric co-design
- Peer assessment
- Simulation-based assessment
- “Ungrading”
- …

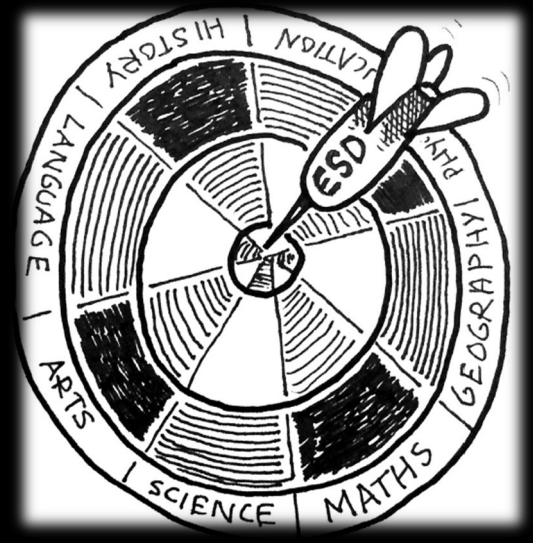
What can we learn from this for a

Needs-based Sustainability Education?

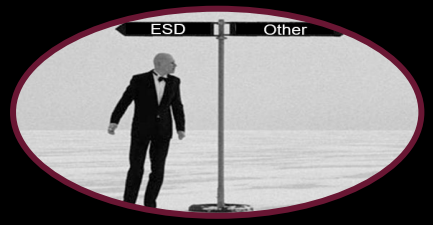
CONCLUSION



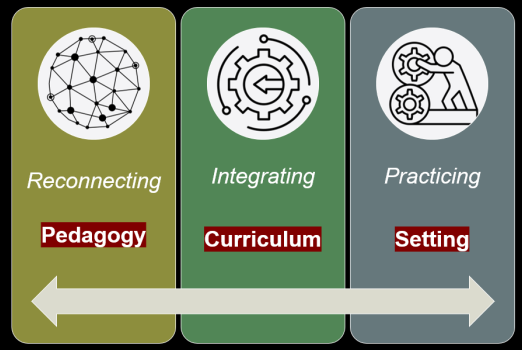
ESD as relevant quality education



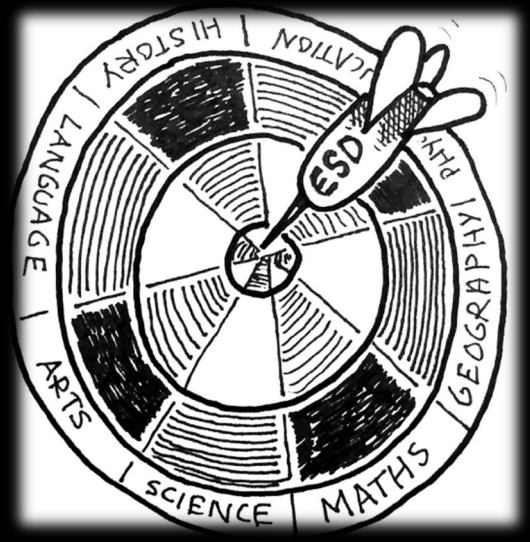
CONCLUSION



- positive vision
- competition of ideas
- re-essentialize ESD



ESD as relevant quality education

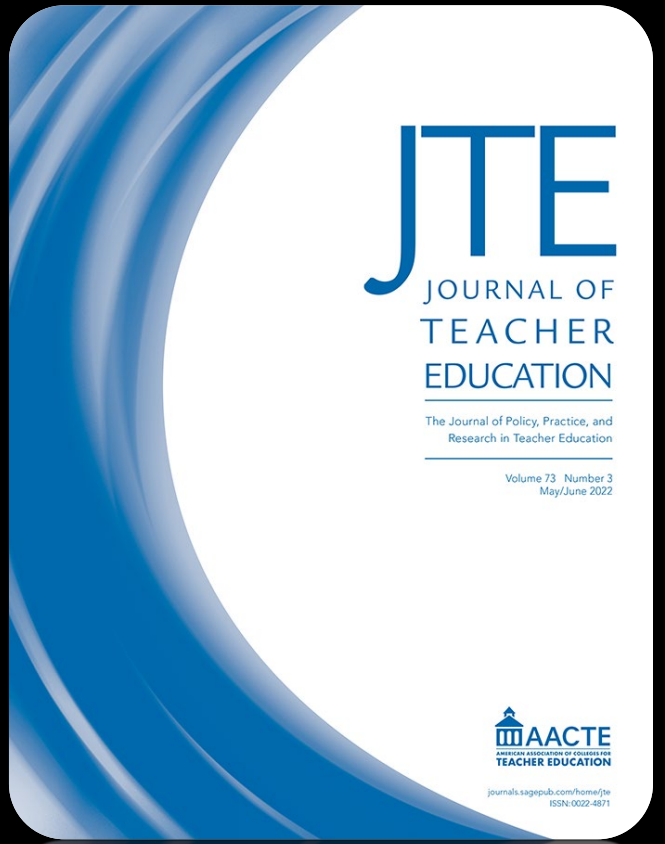


TEACHER EDUCATION: UP TO THE TASK?

Characteristics of the field?
What type of research is being done?

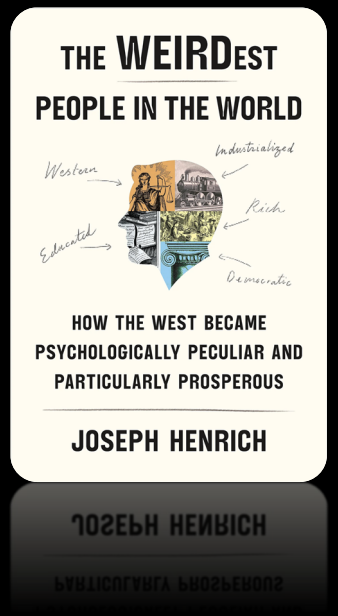
- Review of 158 publications
- Five types of TESD research

Advancing Visions for the Field	**Designing Learning Environments**	**Promoting Systems Change**
	Understanding Learner Attributes	**Measuring Learning Outcomes**



Fischer et al. (2022)

TEACHER EDUCATION: MAIN INSIGHTS

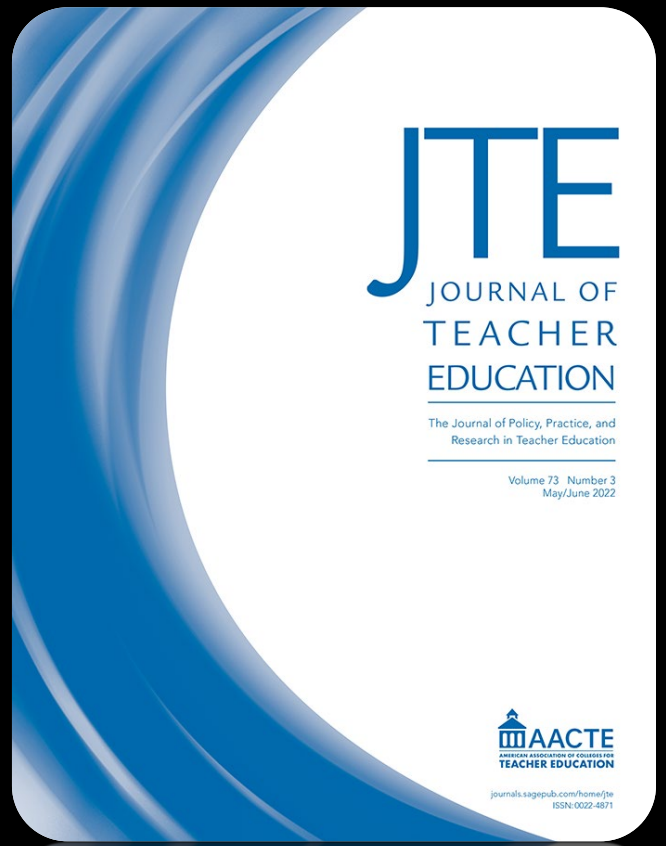


Diversify
voices

Embrace
complexity

Focus
innovation potentials

Sophisticate
ESD Theory



Fischer et al. (2022)

UNESCO CHAIRS: A LEVERAGE POINT

Family of **excellence** + **purpose**

UNESCO CHAIRS: A LEVERAGE POINT

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- **Local**: Leuphana Semester, ESD Hub, ESD Profile Studies for Teachers
- **Regional**: Collaboration with State Ministry, Regional ESD Network
- **National**: German Network of UNESCO Chairs, ASPnet, National ESD
- **International**: UNESCO Consultation, UNITWIN Network

CONGRATULATIONS

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THANK YOU!

unesco Chair

Professor for Sustainability Education and Communication

UNESCO Chair in Higher Education for Sustainable Development

DANIEL FISCHER
daniel.fischer@leuphana.de