



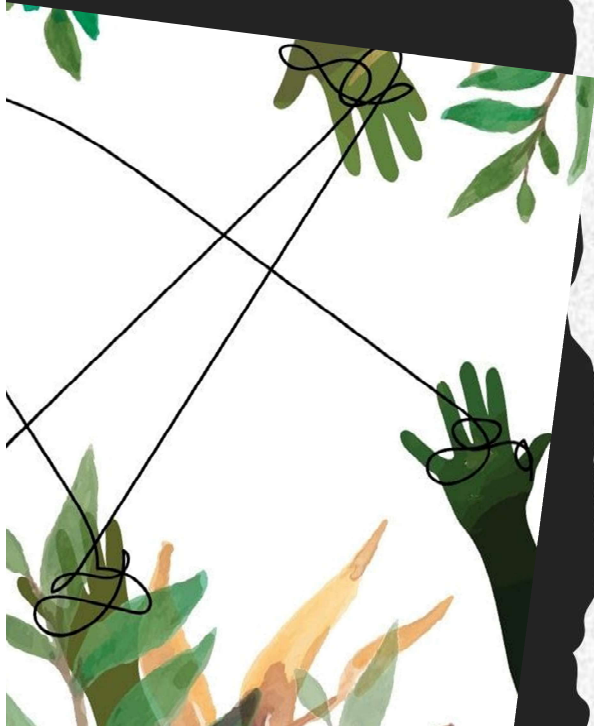
**UNIVERSITY OF  
CAMBRIDGE**

Faculty of Education

**Exploring the  
contribution that Inter-  
and Transdisciplinary  
Constructions make to  
STEAM Education  
in the Era of  
Artificial Intelligence**

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Professor of Arts,  
Creativities  
and Educations**

**8<sup>th</sup> Cambridge  
International  
Education Seminar  
KEYNOTE 12 July 2023  
Lecture Theatre  
Moller Institute**





**CL4Bio**



# CL4BIO

*Creative learning for boosting bio-economy within HEIs' curricula*

Introduction Material for HE Lecturers



Co-funded by  
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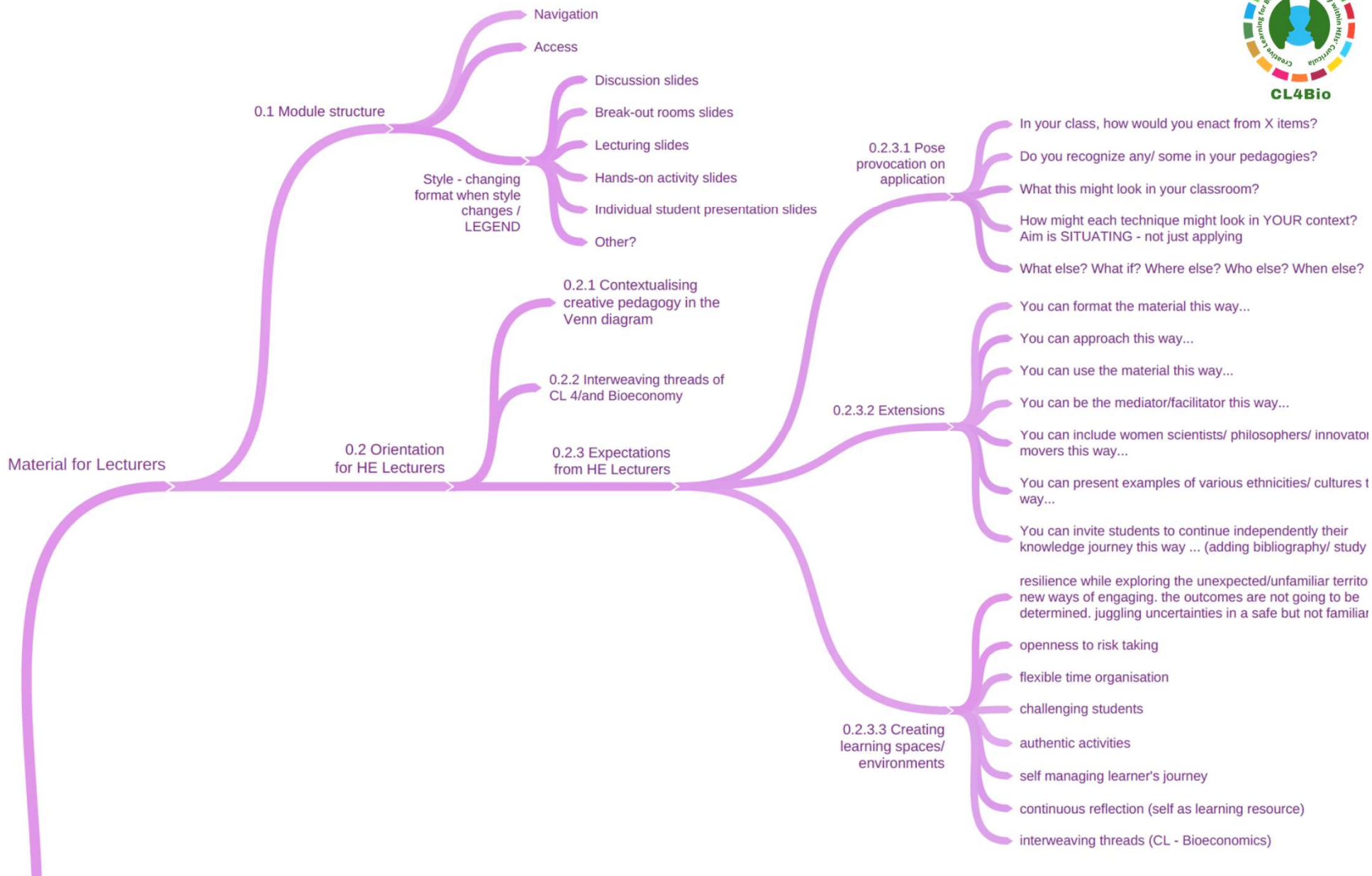
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Hands on activity

## Activity (hands on)



0.1 Module Structure



## BREAK OUT ROOM

*#Encourage risk-taking*  
*#Build connections together*

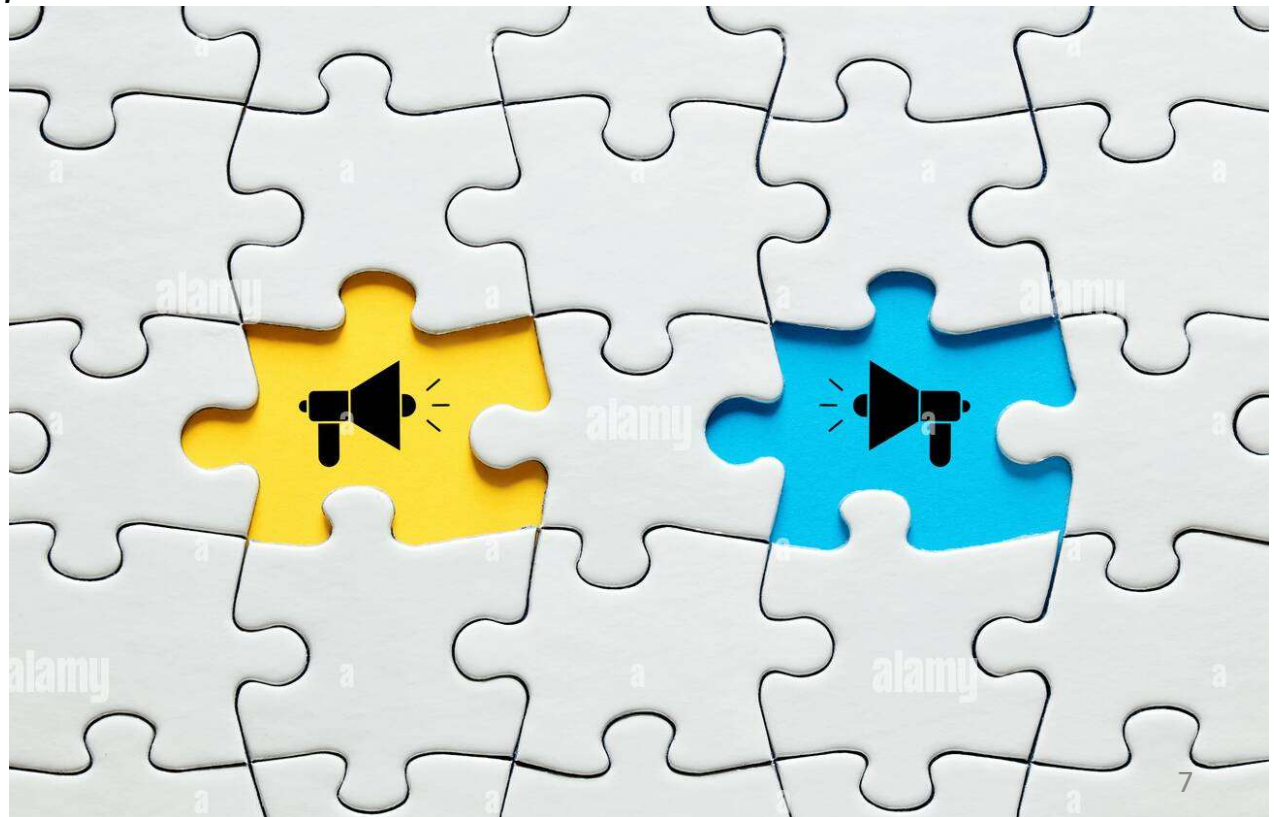


0.1 Module Structure



## LECTURES

*#encourage interaction  
autonomy & agency*



0.1 Module Structure



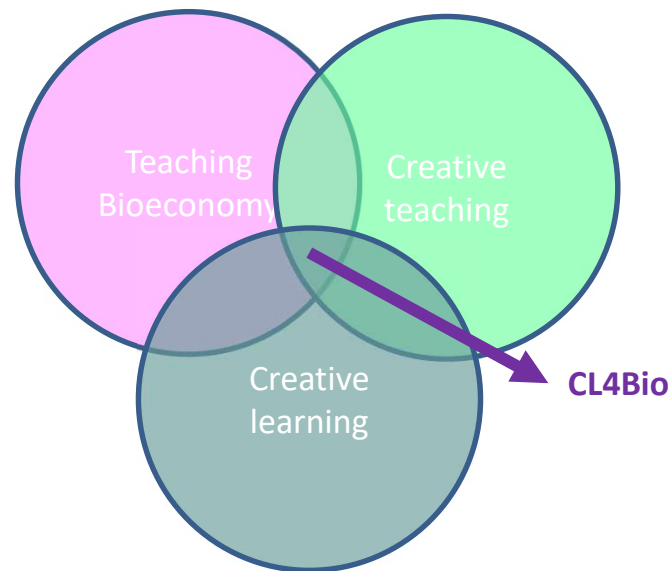
## STUDENT Presentations

*#encourage  
problem-solving, serious play of ideas, autonomy & agency, possibility thinking*



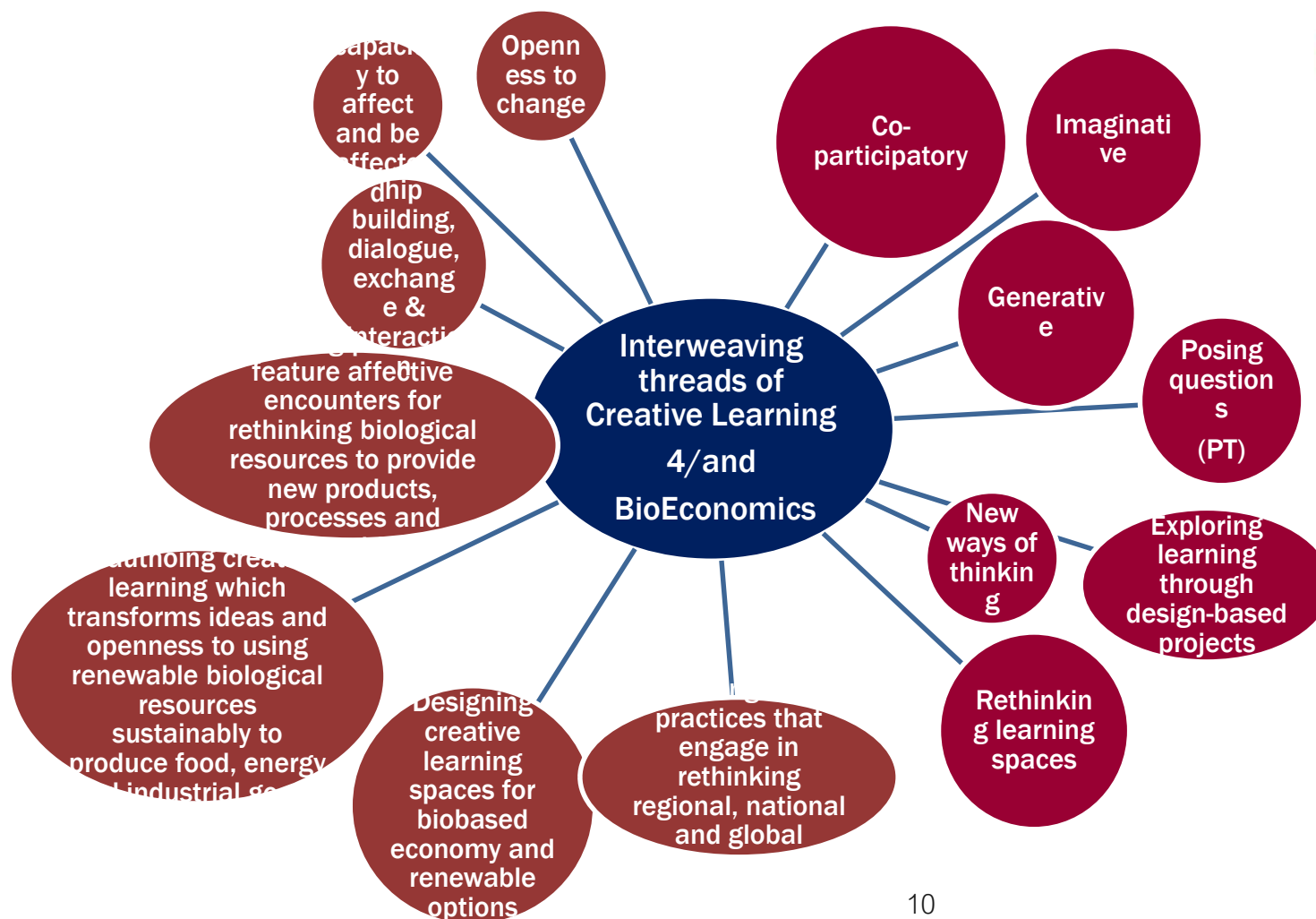
0.1 Module Structure

# CREATIVE LEARNING



**Creative Learning** can be seen as an **event** or a **product** (although it may involve either or both), but also a **process** or a **state of mind (disposition)** involving the serious play of ideas and possibilities and tolerance of ambiguity. This generative, problem-finding/problem-solving process may involve cognitive, emotional and social factors, along with rational and non-rational thought and may be fed by the intuitive, by daydreaming and pondering, as well as by the application of knowledge and skills.

Pam Burnard



## RE-VISIONING HIGHER EDUCATION WHY TRANSDISCIPLINARITY MATTERS and WHY CREATIVE PEDAGOGIES MATTER?

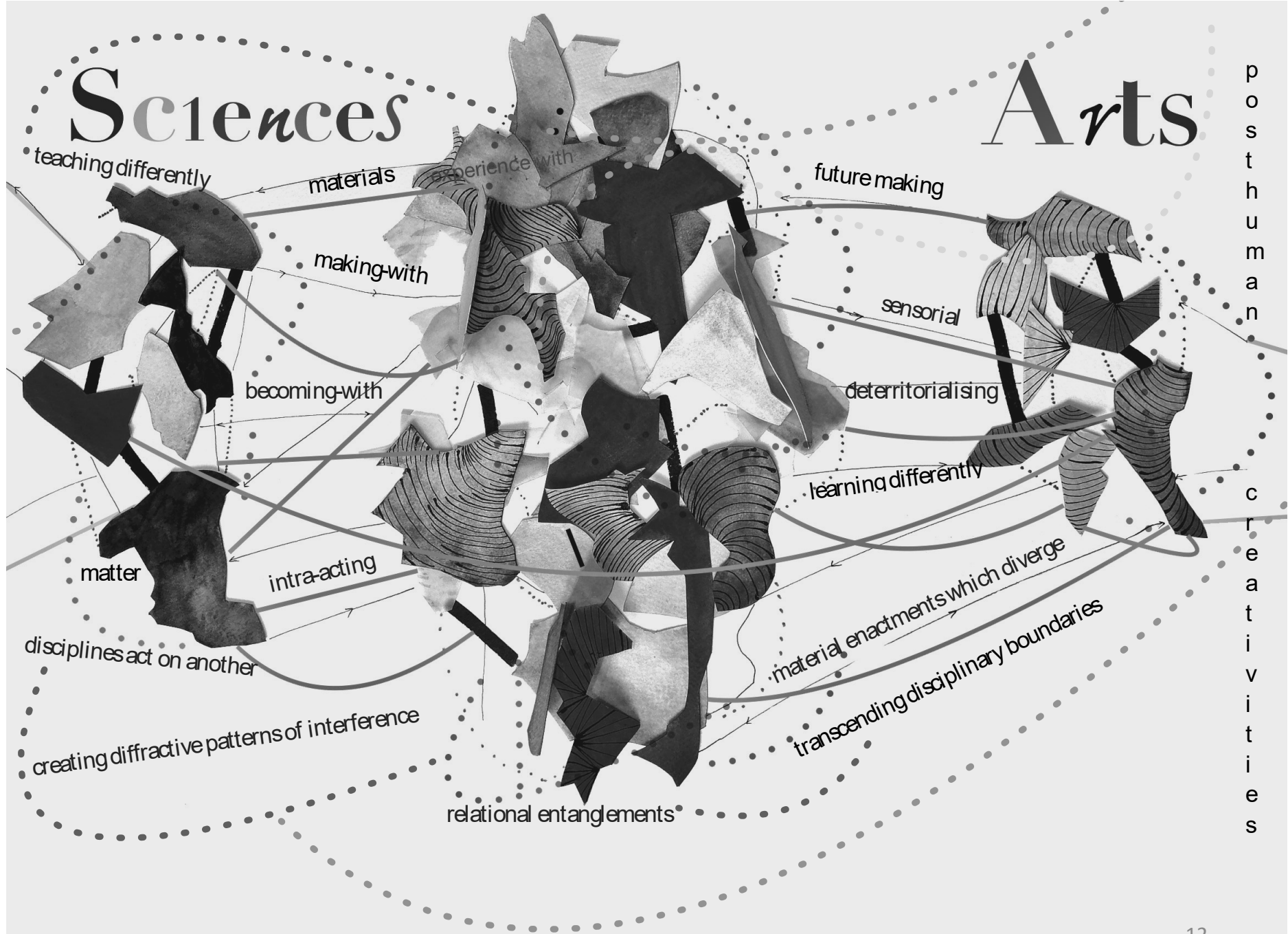
- **Transdisciplinarity is a practice that transgresses and transcends disciplinary boundaries;** its characteristic features include **problem focused ‘real-world’ problems, evolving methodologies** using emergent, iterative, reflexive, collaborative project-based learning processes that are responsive to the particular questions and **co-author new ideas.**

Reviewing the Potential and Challenges of Developing  
STEAM Education Colucci-Gray Burnard et al (2016)

<https://www.bera.ac.uk/project/reviewing-the-potential-and-challenges-of-developing-steam-education>

# Sciences

# Arts

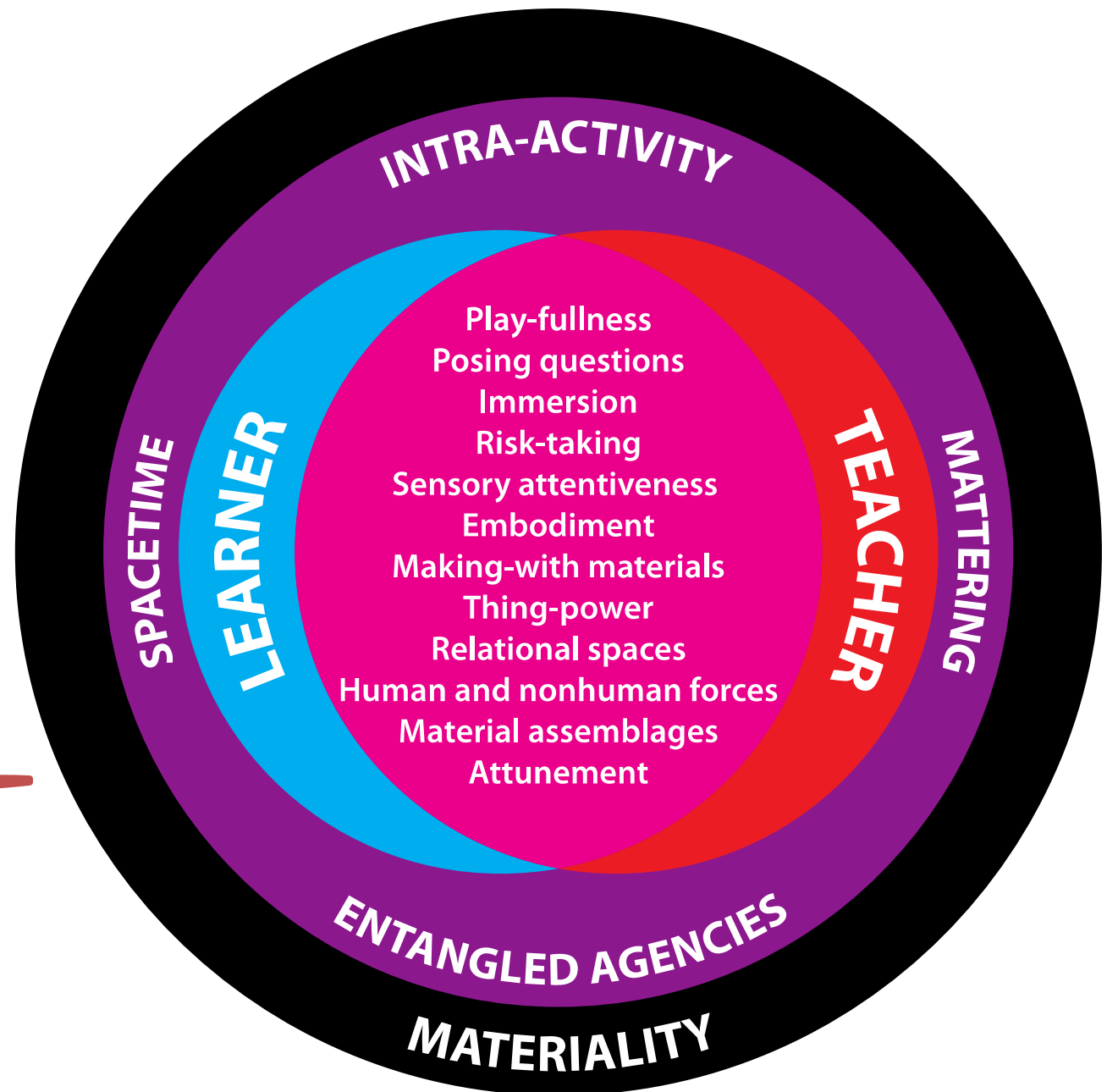




Re-seeing. Re-thinking. Re-configuring.

**Which creativities, which competencies, which skills and which knowledges are we educating for in Higher Education today?**

## Future-Making Pathways



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Burnard, P. (2023)  
*Why Pluralising  
Creativities  
Matters: A  
Posthuman  
Perspective*  
Brill-i-Sense  
(In production)

Model adapted from Burnard, Craft and Grainger, 2006, *Possibility Thinking*

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