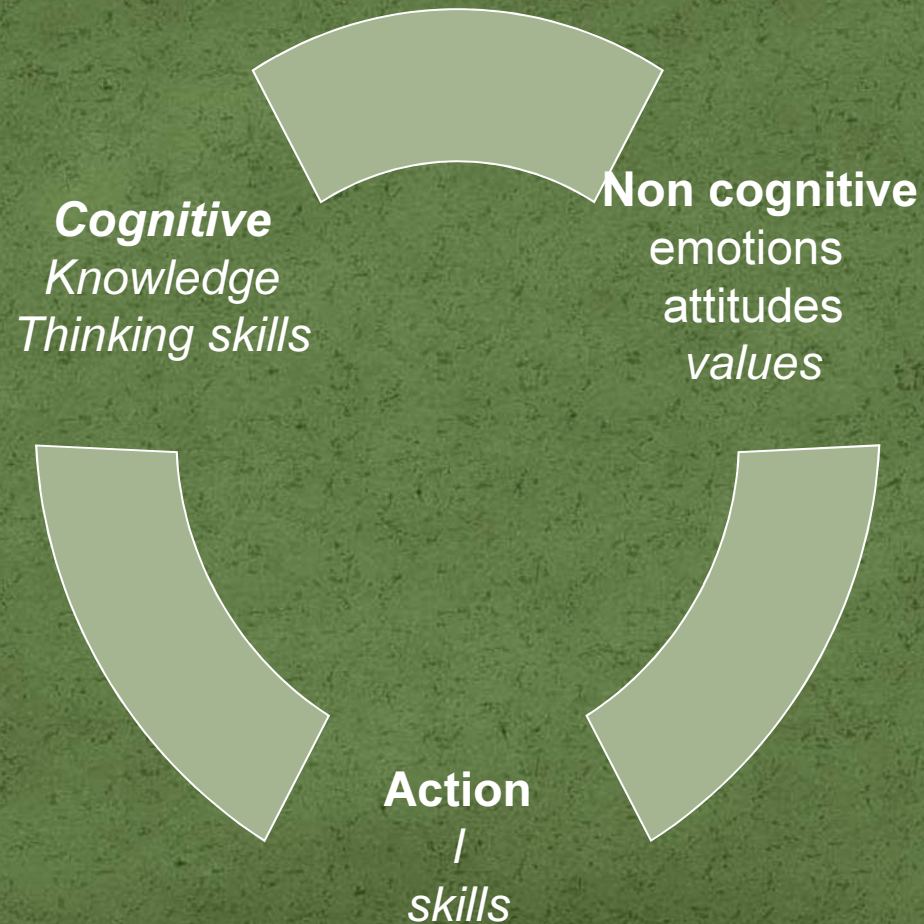


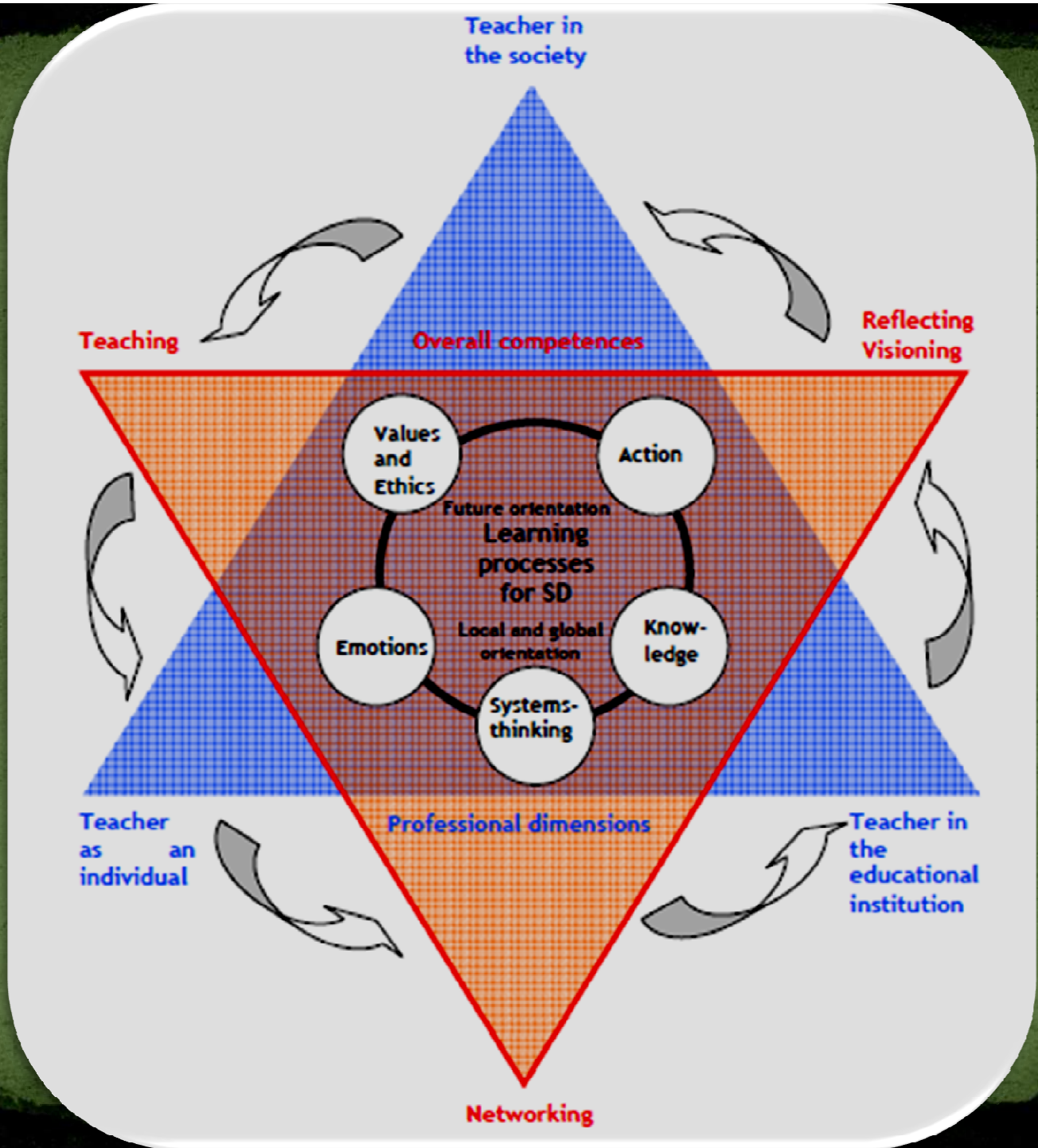
Integrative  
approaches to ESD  
in Slovenia  
Ddr. Barica Marentič  
Požarnik



- “Sustainable development depends critically on the competencies of all of our population” (*OECD work on competencies...*)
- ... Especially on competencies of teachers that have the responsibility to develop them in the younger generation  
(*Competences for ESD Teachers. Brussels, 2008*)

# Model of three clusters of teacher's ESD competences (Okoljska vzgoja, 2011)





# Four pillars - UNESCO

- Learning to know N
  - Learning to be E
  - Learning to cooperate S
  - Learning to work W
- 
- Learning: The Treasure Within, UNESCO 1996

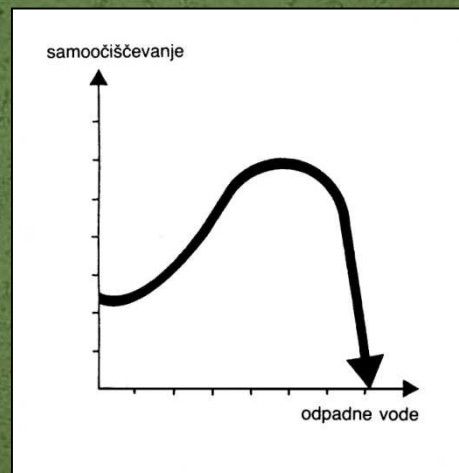
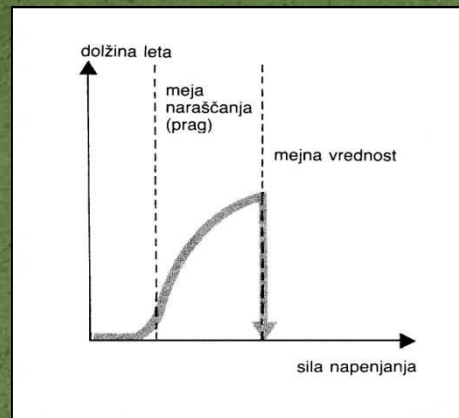
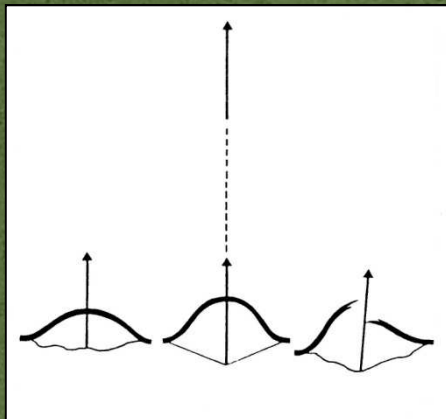
# Developing thinking skills in ESD

- **Analytical thinking** (labs, experiments...): usually well-developed
- **Creative thinking** (ideas, visions of solutions – brainstorming; 6 thinking hats – De Bono)
- **Critical thinking** (discussions of controversial issues, finding arguments PRO-CONTRA)
- **Eco-systemic thinking** - neglected area

# Eco-systemic thinking

Has to do with:

- non-linear relationships, self-regulation;
- non-reversible processes;
- complex relationships of ecological, economical, social nature (also non-intended *consequences of “well-intended” actions*)
- anticipatory learning (Club of Rome)
  - *Vester*



Vir: Vester F. (1991). Kriza prenaseljenih območij Ljubljana: DZS, str. 46 in 49.



# Emotions in ESD

- Scientific distance, objectivity... versus empathy, **wonder**, curiosity, interest, concern (experiences in the environment)
- How do (science) teachers treat their own and their students' emotions?
- What is the role of negative (fear, uncertainty, anxiety..) versus positive emotions in ESD?  
“action paralysis”

# Values and attitudes in ESD

- **Attitudes** as emotionally founded potentials for action on relevant issues (*meat consumption, renewable energy, using cars...*) –
- **Values**, like respect for nature, for tradition; social justice;
- egocentric –anthropocentric - ecocentric values.

Impossible to “teach” values; Teachers can:

- arrange discussions on controversial issues, Arrange pro-social activities (volunteers...)

# Action competence in teachers and students

- Important: Engaging students in meaningful, real-life problems in community;
- This gives relevance to school learning,
- Action competence is NOT “activism” or behavior modification (ex. the goal is not saving energy in school, but learning how to solve similar problems in the future, gaining sense of self-efficacy in joint action...).
- Mogenson, Mayer 2005

# ESD requires changes in the conception of teacher's role

From the teacher as transmitter of knowledge to the teacher as **supporter of active learning** who is able to

- tolerate uncertainty, problems with no one right answer,
- establish connections between nature, economic and social sphere, make crossdisciplinary links,
- bring “burning issues” into the classroom
- create “powerful learning environment”.

# Obstacles to integrative ESD

- Curricula (including university) stress “objective” knowledge in numerous specialised disciplines,
- *“Existing teacher training is technocratic, positivist, geared to measurable outcomes” (UNECE),*
- Nearly no contents, dealing with ESD, in curricula, not enough training in methods,
- Primary (class) teachers get a more holistic education than secondary (subject) teachers.
-

# Some achievements and examples of good practice

- New curricula and guidelines for Environmental education as ESD in primary and secondary schools
- Curriculum for an elective subject in secondary school
- Numerous interdisciplinary projects
- Eco schools
- NGO's: UMANOTERA No excuse KARITAS
- Many more...

# “Where do I stand?”



- **PRO and CON** - drinking bottled water
- **Goals:** clarifying attitudes, connecting environmental and economic issues, analysing conflicting interests, educating consumers,
- Plastic: Hazards for living organisms
- How to change habits?

# Example of an interdisciplinary project

- Ecological problems of to-day's world: Healthy food III. Gimnazija Maribor

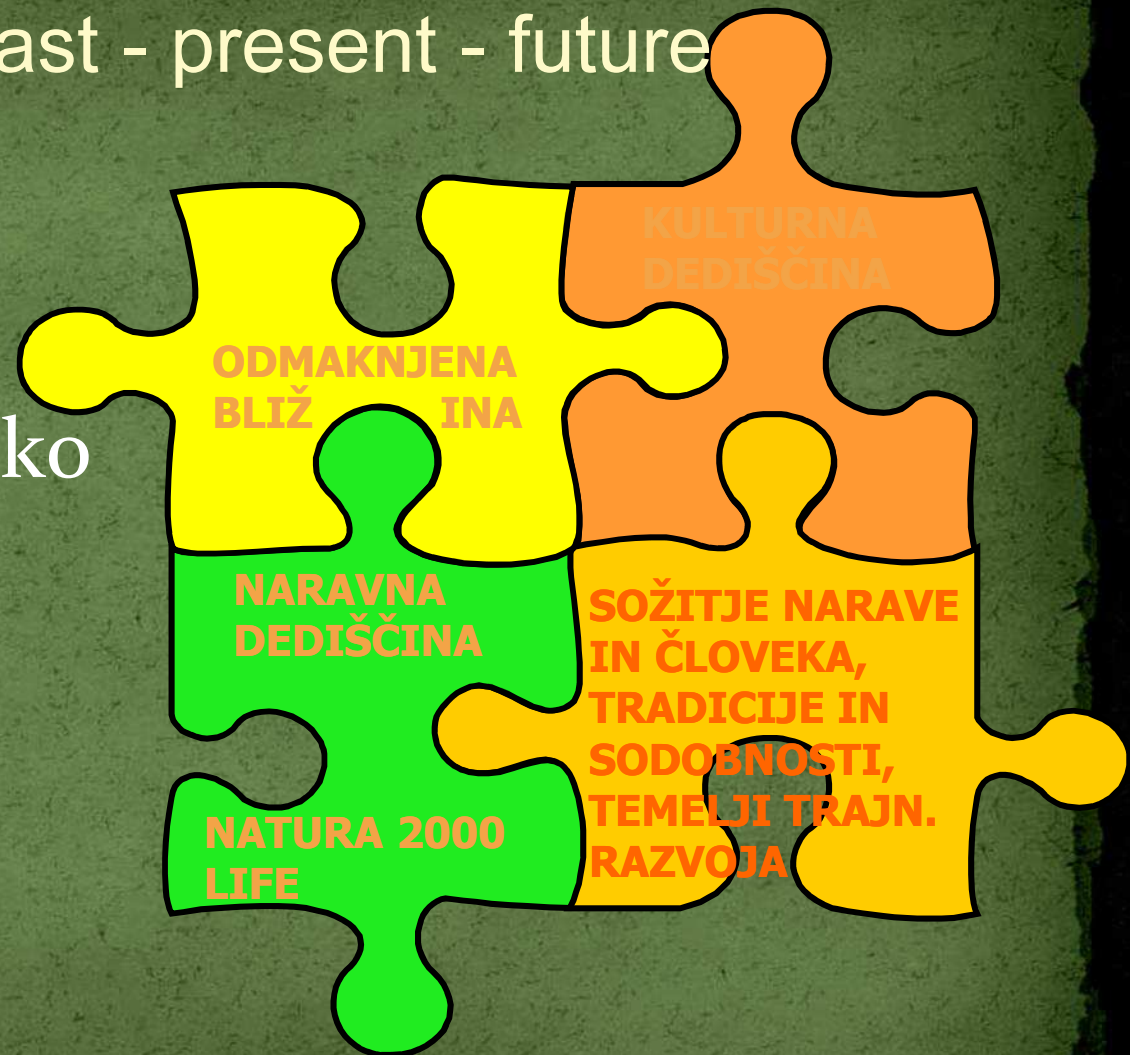
Leader: Ana Hartman





Example of an interdisciplinary project:  
nature – culture; past - present - future

Projekt: Zlato jabolko  
*Gimnazija Celje – Center,*  
*vodja Bernarda Špegel Berdič*



Let's do it together



- We are far from having ESD included in our schools to a sufficient degree to develop an integrative view
- Every step in this direction is important! So:
- Let's do it together, by international cooperation