Action Competence in Sustainable Development

A novel questionnaire for a promising concept

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Major challenges for bringing Education for Sustainable Development (ESD) into schools

- Arduous implementation proces in schools

- Complexity of sustainable development and its diverse relations to the curriculum

- Focus on knowledge as a learning outcome instead of actions or competences

- No quality criteria for the learning outcomes of ESD

- No quality criteria for the educational processes involved

- Top down approach "one size for all" vs complex and wicked bottom up reality of ESD

4-year large scale R&D project focusing on implementation of effective ESD (2017-2021)

>> 5 PhD students

>> 3 part time School coaches

>> 3 part time Teacher trainers

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Intensive cooperation with stakeholders

- Schools
- Educational bodies
- Pedagogical coaching organisations
- Government offices
- Curriculum designers
- NGOs
- Parent associations
- Teacher training institutions
- …

Valorisation : VALIES products

- **Teacher Professional Development** program
  >> co-created with and adopted by the
      educational bodies

- **Effective practices** cocreated with schools

- **Quality criteria** for ESD, relating to learning
  outcomes and as educational processes

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  outcomes and as educational processes

- **Self-evaluation tools** for schools (student,
  teacher, school level)

- **Roadmap** for succesfull implementation of ESD

VALIES   Action Competence in Sustainable Development

2017-2018	2018-2019	2019-2020	2020-2021
Develop	Pilot	Implement	Valorize

12 pilot schools

60 schools

>> 150 teachers   >> 750 teachers
>> 12 principals   >> 60 principals
>> 900 students   >> 5000 students

Grade 5-6 :: last years of primary education : 10 to 12 years old
Grade 7-8 :: first years of secondary education : 12 to 14 years old

2017-2018   2018-2019   2019-2020   2020-2021

| Develop | Pilot | Implement | Valorize |

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Educatie Duurzame Ontwikkeling
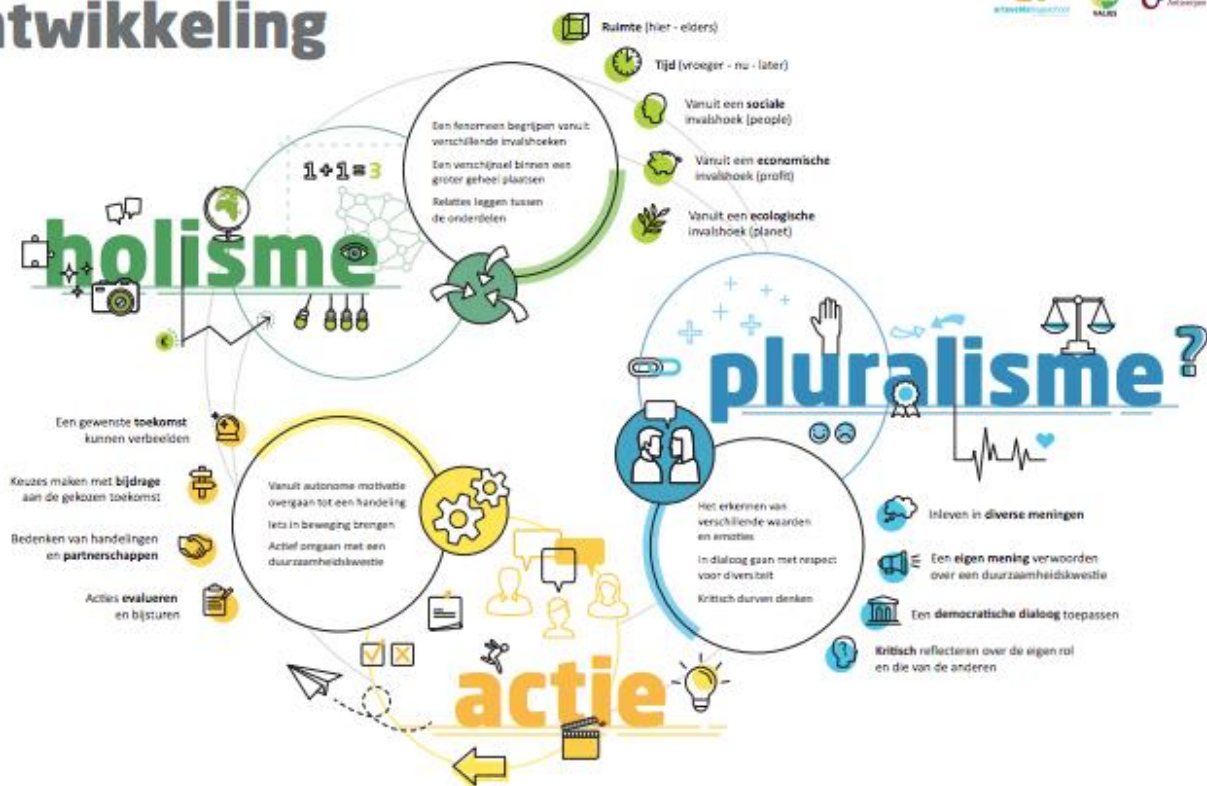
5 interconnected research lines
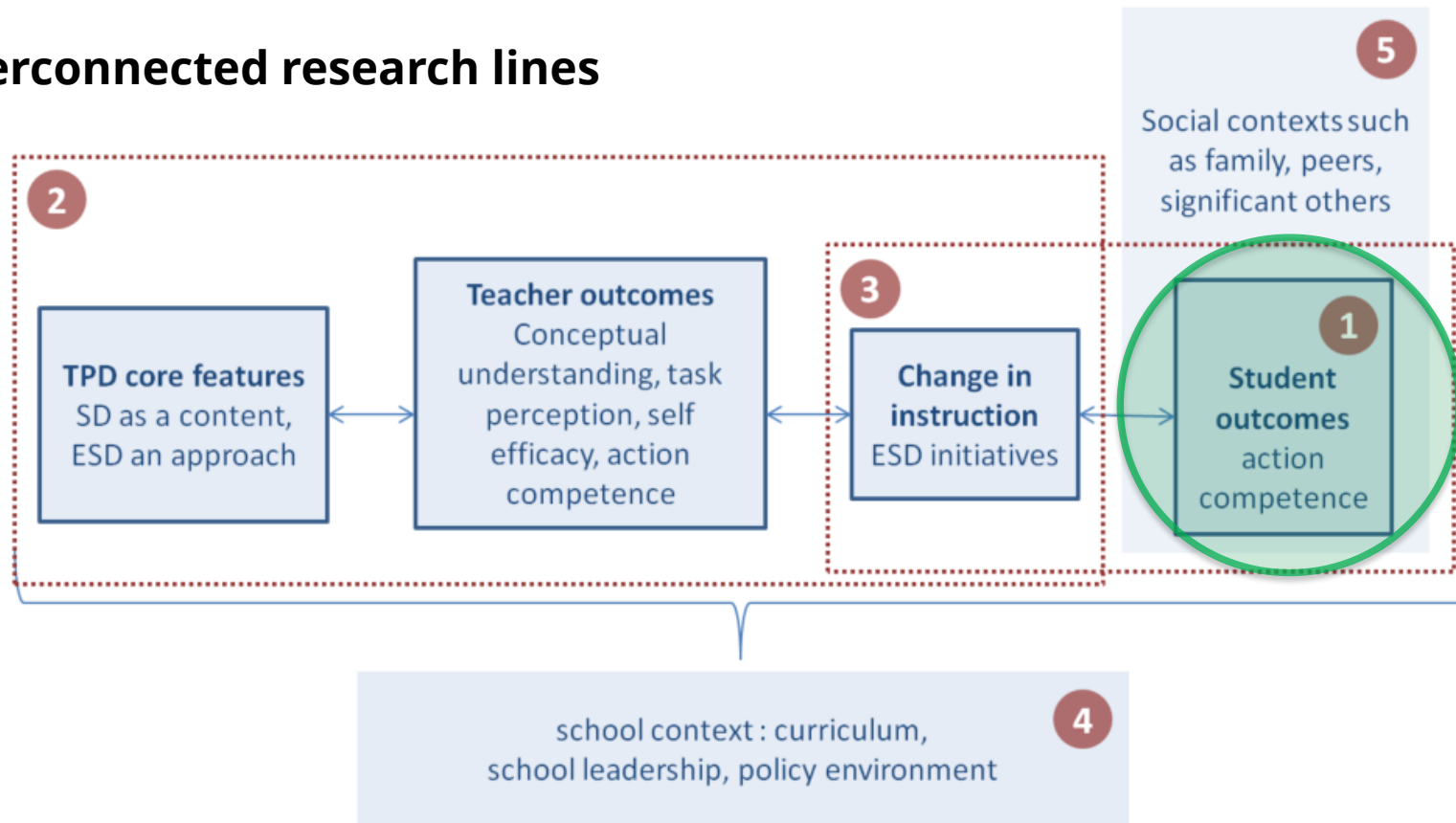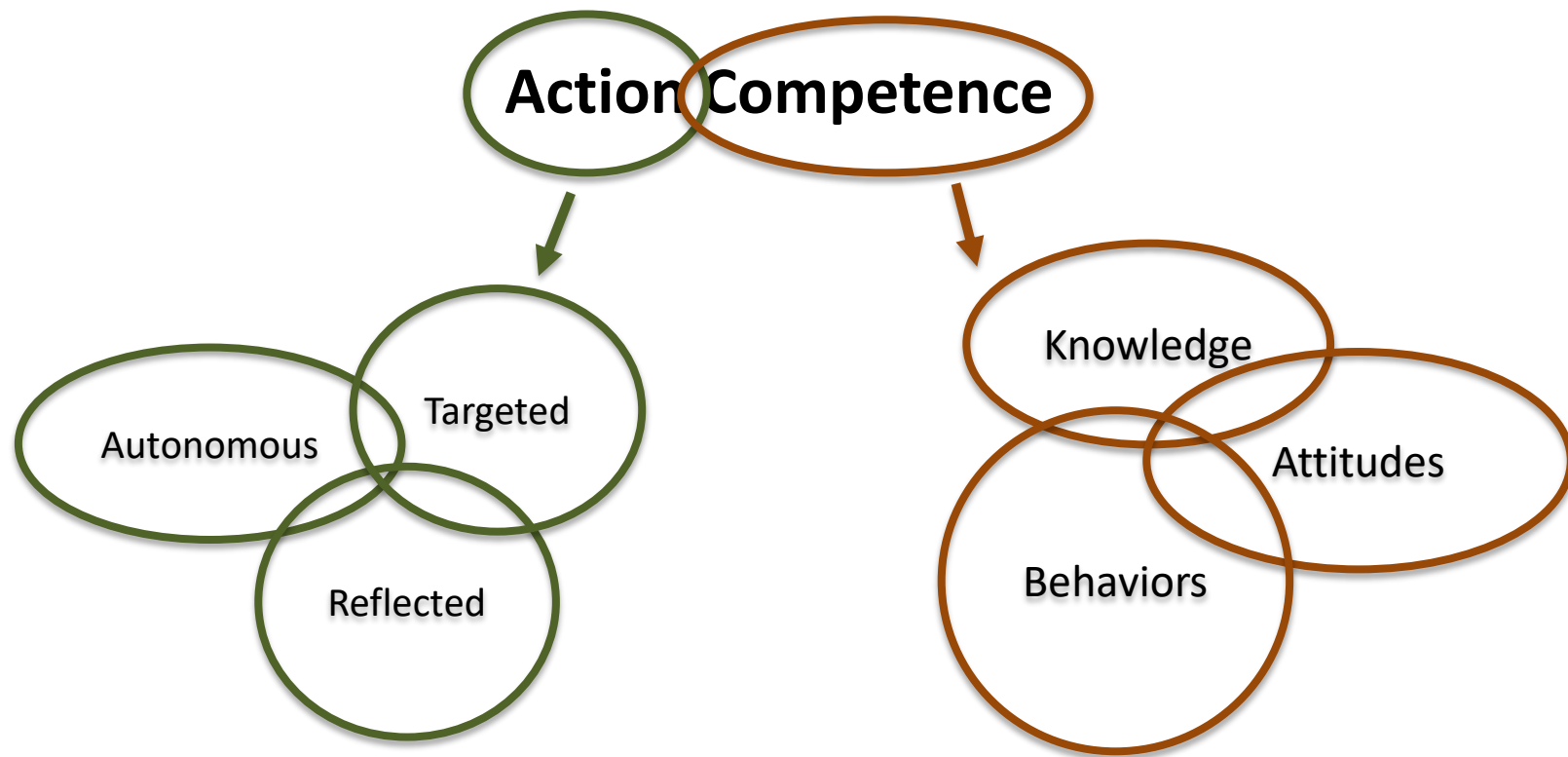
Naar: Desimone, L.M. (2009). Improving impact studies of teachers' professional development: Toward better conceptualizations and measures. *Educational Researcher, 38*(3), 181-199.

Sass, W., Boeve-de Pauw, J., Olsson, D., Gericke, N., De Maeyer, S., & Van Petegem, P. (2019). Defining Action Competence: The case of sustainable development. Submitted to *Journal of Educational Psychology.*

> Defining 'action competence in sustainable development' :

The action competent person is **committed and passionate** about solving a SD issue,

has the relevant **knowledge** about the issue at stake as well as about the democratic

processes   involved, takes a **critical but positive stance** toward different ways for solving

it,

and has **confidence** in their own skills and capacities for changing conditions for the

better.

Based on : Breiting et al. (2009), Breiting & Mogensen (1999), Jensen (2000), Jensen & Schnack (2006), Moeller (2013; 2015), Bandura (1977; 2005), Clark (2016), Levy & Zint (2013)

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12 scenarios from a qualitative study asking children's own suggestions for pro SD actions

'What can you do (alone or with others) to contribute to a better world for everyone?'

- 30 creative expressions (presentations, movies, plays, drawings…) by 76 children
- 12 actions were selected, covering SD dimensions (5P : people, planet, prosperity, peace, and partnership)

    Sample scenario : "give clothes that I don't use anymore to people who have fled from war"

Children's voice

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4 **questions**: subconstructs of ACiSD :

1. People provide a good life for everyone without damaging the planet, when they…
2. I want to…
3. I can…
4. I contribute to a good life for everyone without damaging the planet, when I…

Children's voice

The twelve scenarios co-created with children

1. Use social media such as YouTube to send a message for peace
2. Develop a project against bullying at school
3. Save money to buy an electric means of transport instead of something with a petrol-powered engine
4. Use electricity and water economically at home
5. Swap clothes that I don't wear anymore with friends
6. Give clothes that I don't use anymore to people who are poor in my local community
7. Give clothes that I don't use anymore to people who have fled from war
8. Set up a jumble sale and donate the profit to a good cause
9. Collect litter from the streets together with friends
10. Use only toiletries from brands that don't experiment on animals
11. Treat boys and girls as equal
12. Participate in a strike for the climate

ENEC axes for EC actions

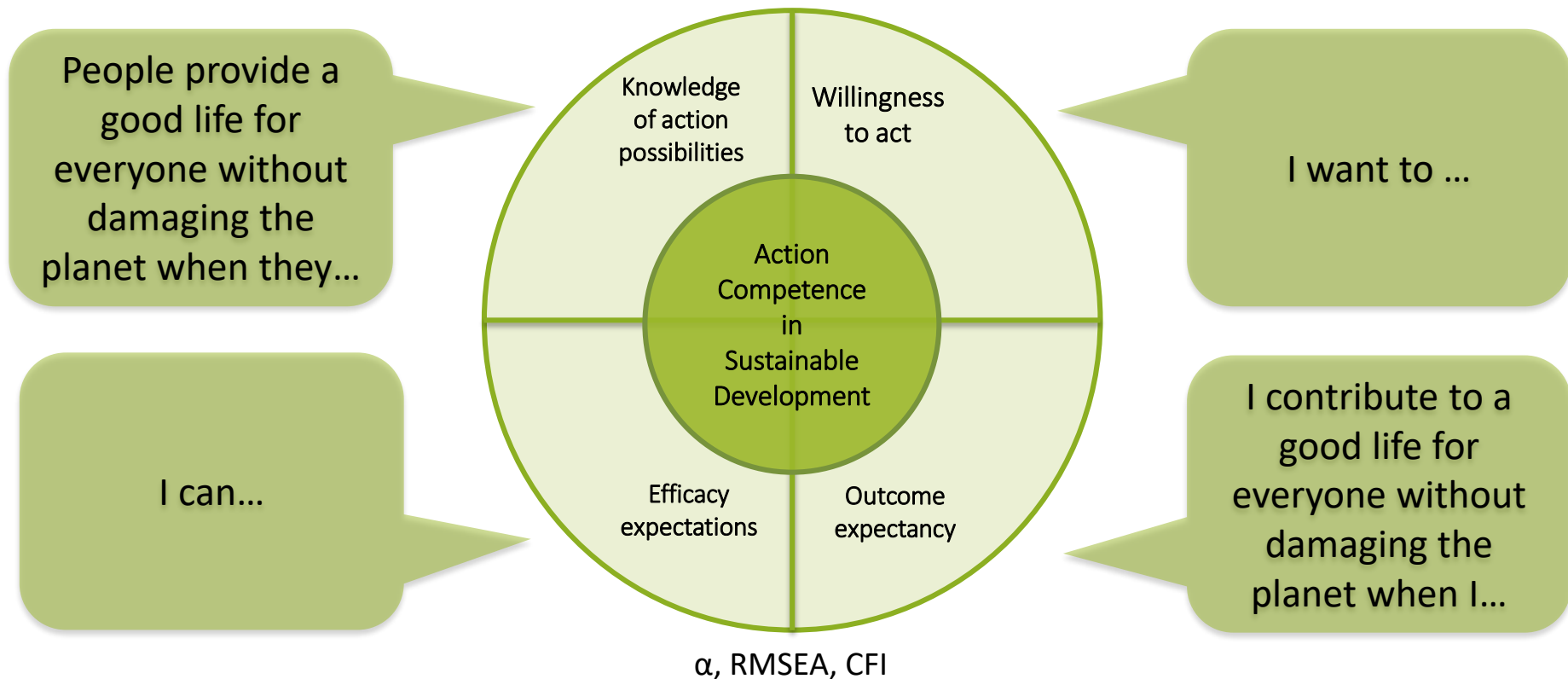Private – Public
Individual – Collective

For each scenario, the four questions are asked

- **48 items**
- **4 valid and reliable scales** relating to the inner circle of the ENEC model
- 15 minutes

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Qualitative validation research : Content validity & cognitive validity

➢ academic experts on sustainable development and ESD (focus groups)

➢ educational specialists from diverse stakeholder groups (focus groups)

➢ children (think aloud protocols)

unreliable & unvalid   unreliable, but valid

reliable, not valid   both reliable and valid

Quantitative validation research : Construct validity & reliability

➢ Pilot version was administered (n = 403, 7 schools grades 5-8)

➢ Analysed (Cronbach's alphas, robust CFA, correlations,…)

➢ Pilot version was adapted according to results from analyses and observations during administration

➢ Adapted version is now being administered to ca. 900 students

We use the scale to

- Measure children's action competence in SD

- Identify patterns in the action competence of children

- Monitor changes across time in children's action competence in SD

- Link these changes to schools' participation in our teacher professional development program

- Study links between ESD educational practices and children's action competence in SD

- Study links between ESD school policy and culture and children's action competence in SD

- Give feedback to schools in our TPD

- ...