Chapter 8

INCLUDING ESD COMPETENCES

How can we work with curriculum and ESD competences in subject teaching?

Clarifying a Handprint CARE Approach

Subject teachers often ask **'How do we reconcile ESD competences with concepts, skills and competences specified in the school curriculum?'**

Competence can be defined as the ability to apply knowledge guided by values, including the readiness of the individual to act. When including ESD competences in lesson planning and assessment, the challenge is to align the curriculum competences for each subject with ESD. Here we noted how, in a Handprint CARE approach, ESD competences develop as students learn to **recognise** concerns, **assess** value and **act** towards more just and sustainable ways of being. Approaching ESD in this way helps teachers to align and bring together subject knowledge (cognitive) with ethics and values (social-emotional) in learning actions to effect change (behavioural practices) (see Chapter 5). In this way teachers began to see ESD as an integral expansion of conventional subject teaching that does not require any radical changes in how they teach.

How do lesson progressions and ESD competences align in learning processes?

Working with a four-quadrant schema for action learning and the Brundiers et al. (2021) map of competences, we noted how **knowledge** sharing contributed to students recognising systemic concerns with developing **know-how** and ***agency* for being able to** do things better together (see Figure 15).

Here **Q1** and **Q2** of a deliberative learning progression can develop as a tune-in or start-up process of systemic **KNOWLEDGE** acquisition towards ***'learning to know'*** and engage with matters of concern. Figure 15: A comparative analysis of ESD competences and a transformative learning sequence

This learning can produce increased **KNOW-HOW** (Q2-Q3) with deepening systems thinking, critical reflection and problem solving towards ***'learning to do'*** or action taking with expanding competence.

Along the way, learning can develop through reflexive modes of action (Q3-4) towards **BEING ABLE TO** envisage changing conditions for ***'learning to live together'*** that includes ***'learning to be'*** active citizens in more just and sustainable environments.

This initial framing of competences in learning progressions was useful for helping teachers to reconcile their jobs as subject teachers with the additional competency specifications for ESD. Through an alignment exercise (using Figure 15) lesson planning came to include intergenerational heritage as a decolonising process alongside school subject knowledge and life experience. Deliberative learning developed through local inquiry and critical thinking in Handprint learning actions towards more just and sustainable futures. The theory and learning progressions were understood by most teachers but many still found lesson planning too complex so they asked **'Is there a more practical and simplified way of applying competences for lesson planning?'**

The initial comparative analysis of competences aligned cognitive, social-emotional and behavioural outcomes, as specified in the curriculum, with ESD. Here **systemic** reasoning emerged as a foundational capability in both subject teaching settings and ESD. We found that it was possible to cluster 'systems thinking', 'critical thinking' and 'problem solving' as knowledge-informed capabilities centred on the acquisition of heritage and subject knowledge for evaluative learning in relation to local matters of concern. These initially opened up across Q1 and Q2.

Flowing from the activation of systemic competences for ESD as knowledge-led action learning (see Chapter 5), **strategic** agency was identified as an applied competence centred on 'reflexive modes of action'. This involved learning to **anticipate,** clarify **norms,** develop **strategic** initiatives and **collaborate** with others with a reflexive **self-awareness** that could be activated and assessed across Q3 and Q4

Working from the perspective of a Handprint CARE approach to ESD, competences can best be activated in deliberative processes of knowledge co-production as participants recognise concerns and assess value towards

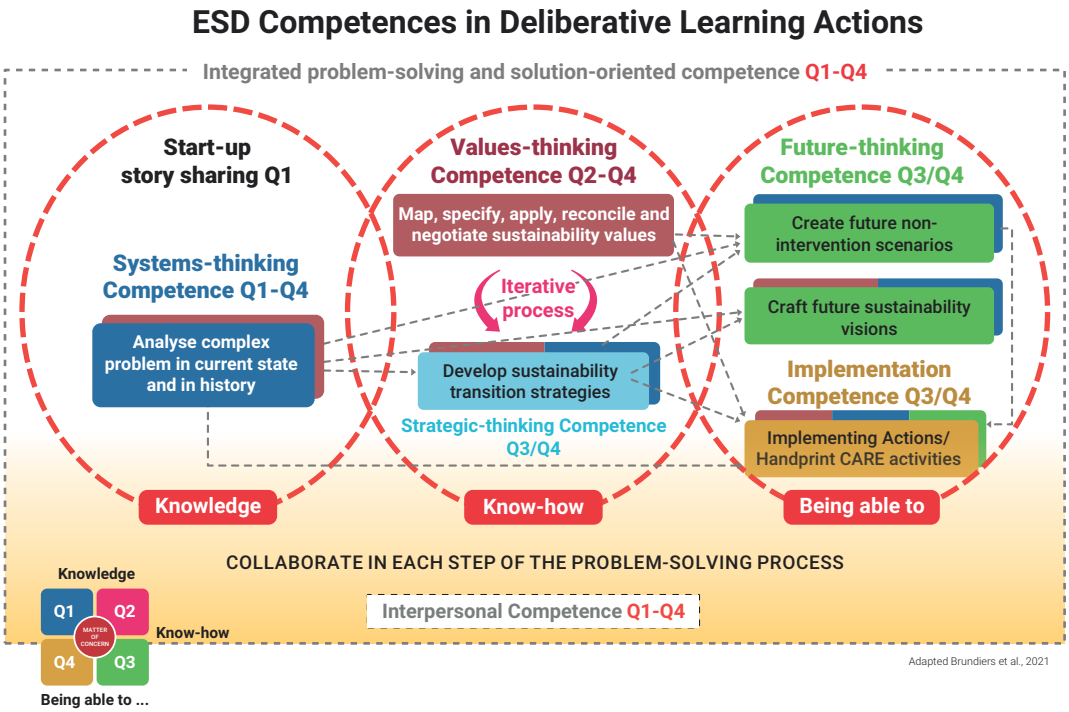

Figure 15: a comparative analysis of esd competences and a transformative learning sequence

Handprint actions. Competences develop in learning progressions such as this where students are challenged to engage with sustainability concerns together.

Competences in ESD and Education

"Competences refer to those cognitive abilities and skills that people need to overcome problems, and to their willingness to successfully overcome problems in different situations", according to Josef Leisen (2021), a German professor of didactics in physics and a specialist of language-sensitive content teaching. He illustrates the understanding of competences with the following concise formulations:

Competence = knowledge + willingness + action

Competence is the active use of knowledge and values.

This definition aligns with how competences are defined for ESD by UNESCO.

The educational concept of competences is not about students being taught fewer facts, but rather suggests that students learn how to make better decisions using that knowledge while guided by values. In accordance with Education for

Sustainable Development (ESD) concepts and emerging global challenges, the values to be considered are connected to the principles of sustainability which includes care for nature, respect for diversity, reducing disparities in standards of living, commitment to global and local social responsibilities, and, most importantly, peace in our times.

The overarching framework of ESD competences inspired by the UNECE Strategy for ESD (2011, 13) reflects a wide range of aspects, and focuses on **competences for educators:**

- **Learning to know** refers to understanding the challenges faced by the society both globally and locally and the role of educators and students.
- **Learning to do** addresses the developing of action competence and practical skills in relation to education for sustainable development.
- **Learning to live together** contributes to developing mutual understanding, respect and appreciation for interdependence, pluralism and peace.
- **Learning to be** is developing one's personal attributes and ability to act with greater autonomy, judgement and responsibility in relation to sustainable development for the future.

The underlying ESD characteristics of each of the above include: ***a holistic approach,*** which includes integrative thinking, dealing with complexities, and practice; ***envisioning change,*** which provides opportunities to discover alternative futures, learn from the past and inspire engagement in the present; and ***achieving transformation,*** which serves to change what it means to be an educator, the way of teaching and learning, and to transform the education system as a whole (ibid., pp. 16-17).

There is general agreement that transforming processes for a just and sustainable world are based on some crucial ***cross-cutting competencies*** that are necessary ***for all students*** of all ages worldwide – developed at different age-appropriate levels. In the box given on the following page, these crucial competences are explained briefly. These can be considered by teachers of primary schools when selecting topics and designing and planning educational activities for their students.

It goes without saying that teachers have to adapt the selected competences they wish to promote to the age and learning levels of their students. Simultaneously

they have to keep in mind the important insight: “Competences cannot be taught, but have to be developed by the students themselves. They are acquired during action, on the basis of experience and reflection” (UNESCO, 2017, p. 10).

Key Competences for Sustainability

The following eight key competences, developed by UNESCO, are cross-cutting competences that are necessary for all learners of all ages, worldwide, and are seen as crucial to advance sustainable development.

Systems thinking competence: the ability to recognise and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty.

Anticipatory competence: the ability to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.

Normative competence: the ability to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.

Strategic competence: the ability to collectively develop and implement innovative actions that strengthen sustainability at the local level and further afield.

Collaboration competence: the ability to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.

Critical thinking competence: the ability to question norms, practices and opinions; to reflect on one's own values, perceptions and actions; and to take a position in the sustainability discourse.

Self-awareness competence: the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.

Integrated problem-solving competence: the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the above-mentioned competences.

Source: UNESCO SDGs Learning Objectives, 2017

Concluding Insights

The competences specified for subject teaching integrate well with ESD competences in lesson progressions that foster the learner-led application of knowledge and higher-order thinking skills.

References

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