A Rounder Sense of Purpose: Competences for Educators in Search of Transformation

5

Rick Millican

Abstract

After introducing the Rounder Sense of Purpose (RSP) project and its links to the United Nations Sustainable Development Goals (SDGs), this chapter introduces the 12 RSP competences, explaining the provenance and significance of each and why this combination might be considered transformational. The author goes on to explore some of the challenges related to adopting a competence-based approach, noting these challenges as: the concept of competence itself, presentation of the framework, pedagogy, outcomes and assessment. The concluding discussion on assessment is developed in a subsequent chapter in this book.

Keywords

Education for Sustainability (ESD) · Competences · Sustainable Development Goals (SDGs) · A Rounder Sense of Purpose (RSP)

Introduction

This chapter introduces the Rounder Sense of Purpose (RSP) framework while explaining the rationale behind the design. Links to the Sustainable Development Goals (SDGs) are explored, before reflecting on some key issues and challenges that have arisen for the project team as they have worked with these competences. This is followed by thoughts on future directions.

By drawing from and building on previous initiatives, principally the UNECE (2012) framework, *A Rounder Sense of Purpose* (RSP), an EU-funded project, has attempted to create a workable framework of competences for educators of sustainable development that could be employed in any sector or educational context. In combination, the competences cover those aspects of education highlighted by a broad body of research (e.g. Sleurs 2008; Wiek et al. 2011; Rieckmann 2012; Bertschy et al. 2013; Roorda 2016; Glasser and Hirsh 2016; Lozano et al. 2017), which have the potential to create learners who become active change agents working towards a sustainable future.

The project consisted of two phases: the first, RSP I, analysed the competences in the *Learning for the Future* framework (UNECE 2012), looking for overlap and redundancies and distilling the competences to a core of 12. While project partners tested and refined these competences in

R. Millican (✉)
University of Gloucestershire, Cheltenham, UK
e-mail: rmillican@glos.ac.uk

P. Vare et al. (eds.), *Competences in Education for Sustainable Development*, Sustainable Development Goals Series, https://doi.org/10.1007/978-3-030-91055-6_5

practice (working with a combined total of approximately 500 teachers, student teachers, lecturers and community educators), efforts continued to compare and contrast this emerging framework with other education for sustainable development (ESD) competence frameworks. This work assisted in defining three learning outcomes and a number of underpinning components for each of the 12 competences. This was then tested through a Delphi research process to check coverage (Vare et al. 2019). A second project phase refined the framework further and linked it with the Sustainable Development Goals (SDGs), producing materials to address both the SDGS and the competences, all freely available via the RSP website: https://aroundersenseofpurpose.eu.

The Rounder Sense of Purpose Framework

The name of the project—and resulting framework—was chosen to convey a broader purpose of education away from the tendency to focus on narrow economic imperatives, a trend that has been apparent for decades (Schultz 1960). A 'rounder sense' implies a more humanistic agenda of individual, collective and environmental well-being involving the emancipation and conscientisation of learners (Freire 2005). As a consequence, learners should be able to critique societal structures and instigate and participate in change in pursuit of a socially just and sustainable world.

The framework was displayed initially in a grid (see Table 5.1) with three columns, partly in recognition of its UNECE heritage but also as the three headings: thinking holistically, envisioning change and achieving transformation, encapsulated the essence of ESD capability (Frisk and Larson 2011).

Thinking Holistically

This cluster of four competences (the left-hand side column) reflects the fundamental understanding that all things are linked together in some way. The specific competences are:

Systems thinking: The need for learners to be able to understand systems and see the world as an interconnected whole, appreciating the connections between human and natural environments and recognising the consequences of actions taken and the causes of unsustainability (Jucker 2020).

Attentiveness: This refers to learners being attuned to what is happening in the world and attentive to, and aware of, aspects of human endeavour that are unsustainable and therefore requiring change. It is evident that technology and behaviours are constantly evolving and that research reveals some of these to have a negative impact on planetary systems (Bendell 2018). Consequently, learners need to have developed an interest in, and an ability to keep abreast of, new developments and emerging trends.

Transdisciplinarity: To assist with holistic thinking, learners need to appreciate the complexity of the issues involved, the limits of discipline-based knowledge and the dangers of adopting a single perspective (Selby and Kagawa 2010). To enrich and strengthen thinking, they need to be able to act and work collaboratively, engaging with others with different perspectives, including those outside of academic disciplines (in some contexts characterised as indigenous knowledge) in order to explore and construct new knowledge and ideas.

Criticality: This emphasises the need to constantly assess and evaluate ideas, knowledge and information with the willingness to challenge claims, opinions and assumptions (Sterling et al. 2017; Lotz-Sisitka et al. 2015). It recognises that knowledge is contingent on time, culture, power, evidence and perspective and that in order to progress towards a sustainable world it is necessary to separate fact from opinion and to question unsubstantiated claims.

Envisioning Change

These four competences—presented in the central column of the framework—acknowledge that

Table 5.1: The Rounder Sense of Purpose Framework

Thinking holistically	Envisioning change	Achieving transformation
Integration:		
Systems	Futures	Participation
The educator helps learners to develop an understanding of the world as an interconnected whole and to look for connections across our social and natural environments and consider the consequences of actions	The educator helps learners to explore alternative possibilities for the future and to use these to consider how behaviours might need to change	The educator helps learners to contribute to changes that will support sustainable development
Involvement:		
Attentiveness	Empathy	Values
The educator helps learners to understand fundamentally unsustainable aspects of our society and the way it is developing and increases their awareness of the urgent need for change	The educator helps learners to respond to their feelings and emotions and those of others as well as develop an emotional connection to the natural world	The educator develops an awareness among learners of how beliefs and values underpin actions and how values need to be negotiated and reconciled
Practice:		
Transdisciplinarity	Creativity	Action
The educator helps learners to act collaboratively both within and outside of their own discipline, role, perspectives and values	The educator encourages creative thinking and flexibility within their learners	The educator helps learners to take action in a proactive and considered manner
Reflexivity:		
Criticality	Responsibility	Decisiveness
The educator helps learners to evaluate critically the relevance and reliability of assertions, sources, models and theories	The educator helps learners to reflect on their own actions, act transparently and to accept personal responsibility for their work	The educator helps learners to act in a cautious and timely manner even in situations of uncertainty

the society we have created is currently unsustainable and that we need to imagine alternative ways of being that can contribute to a sustainable future. The group comprises:

Futures: This refers to being able to project into the future and, by looking at current trends, predict what may happen. This trend or pattern analysis is necessary in order to anticipate and therefore mitigate, or at least prepare for, challenges that are likely to occur. It also refers to the ability to imagine alternative futures which are more sustainable and to consider what steps are needed to be taken to reach these preferable visions of the future (Rieckmann 2012).

Empathy: At one level this involves seeing the world from another's perspective, whether that is as another person or a different being altogether (Kopnina and Cherniak 2016). This competence also recognises that exploring future scenarios can challenge both ourselves and others. It requires awareness of one's emotional response to the threats that we face and an understanding of how others may react. This may involve protecting each other and enhancing resilience given that a loss of hope can be damaging to mental health and impact our motivation and ability to work towards achieving change (Ojala 2016).

Creativity: The process of envisioning alternative futures demands creativity—the ability to imagine different ways of being and behaving, of ways we might structure and organise society, of ways we could structure the economy and of ways to design and build items we need including the buildings we live and work in. It also requires flexibility, the willingness to accept change where appropriate, to revisit tried and tested ideas, possibly in new combinations, as well as a readiness to try the new (Carrascal et al. 2019).

Responsibility: The final competence in this column focuses on the need to accept responsibility for things we do and the decisions we make. Linked to futures thinking, this competence focuses on who we are—the *Learning to Be* dimension (UNECE 2012). It encourages consideration of the consequences of actions taken, including the educator's inevitable role in providing a model that their students may follow.

Achieving Transformation

This final cluster suggests that, having thought holistically, imagined the future and recognised the need to change, it is necessary to think about the moves required to make change happen. Competences in this group are:

Participation: This involves understanding that there are different ways to participate as well as varying levels of participation and that each may be valid in different contexts. Working together, deliberating on decisions with others; these are key elements of a democratic response to our current unsustainable predicament (Reid et al. 2007).

Values: This recognises that actions are underpinned by beliefs about how the world should be, which are themselves based on values. The competence refers to the ability to recognise and understand values as drivers behind the behaviours of self and others, what Barth et al. (2007) call value interiorisation. It encompasses the need to acknowledge and accept differing value systems and the need to be willing to share, discuss and reflect upon these differences in the context of sustainability.

Action: Ultimately, the process of achieving transformation requires action and this competence refers to the ability to act. It is about the development of agency and having the confidence and skills required to be able to take action in different contexts making use of social, political, economic and democratic structures (Ploum et al. in Carrascal et al. 2019).

Decisiveness: This refers to the ability to make decisions, particularly when faced with dilemmatic situations that are so characteristic of sustainable development. It recognises that knowledge and understandings about the world in general and sustainability in particular are incomplete and evolving and that therefore there is a need to have the confidence to make considered decisions based on the information to hand (Vare 2019).

Links to the UN Sustainable Development Goals (SDGs)

As a Contribution to SDG 4: Quality Education

Sustainable Development Goal 4 states that education 'enables upward socioeconomic mobility and is a key to escaping poverty'. Whilst there is likely to be little dispute about the need to widen access to education to include all and that it can help escape poverty, there is some contention about the broader purpose, content and method of education (Curtis and Pettigrew 2009) and what constitutes 'quality' education (Kumar and Sarangapani 2004). Young people increasingly want an education that will inform them about the challenges facing the world and equip them with the skills that will help them tackle these issues and mitigate them where possible (e.g. https://www.teachthefuture.uk/). SDG 4 therefore calls explicitly for education for sustainable development (Target 4.7).

As Schumacher (1997) said while observing how an increase in the volume of education had been accompanied by an increase in the danger of ecological collapse, 'if still more education is to save us, it would have to be education of a different kind' (ibid). An educator equipped with the RSP competences should be well placed to deliver a 'different kind' of education, one that should go further in satisfying young people's demands to be prepared for the future.

As a Means to Address Other SDGs

The 17 Sustainable Development Goals are billed as a 'shared blueprint for peace and prosperity for people and the planet, now and into the future' (https://sdgs.un.org/goals) and note the parallel

aims of ending poverty, improving health and tackling climate change (ibid). Conceptions of sustainable development recognise the need to consider societal and economic needs alongside environmental needs and stress the impossibility of achieving environmental sustainability without economic models and societal structures which are themselves sustainable and designed in harmony with the environment (Purvis et al. 2019). It can therefore be seen that utilising the RSP competences and educating towards sustainable development is in keeping with educating towards the SDGs.

Consequently, a mapping exercise was undertaken showing this interplay between the RSP framework and the SDGs. Activities and materials were produced for educational contexts illustrating how both could be covered simultaneously (see https://aroundersenseofpurpose.eu/sdgs/).

Key Issues/Challenges

In the process of designing and articulating the RSP framework in terms of competences, a number of issues have arisen which the project team has wrestled with. Five of the key issues are discussed below.

The Concept of Competence

The move to an expression of educational aims in competence terms rather than descriptions of content was an attempt to shift focus from what should be conveyed or transmitted to the learner, to expectations as to what the student should be able to do, "the output-oriented approach focuses on students gaining the 'concepts and abilities for social action'" (Frisk and Larson 2011: 6). However, what initially may have appeared to be a simple task, proved complicated by considerations of level and context. The question remains as to whether it is possible to be competent in one context but not in another and whether there is a baseline or threshold competence and thereafter different levels of capability that would need to be defined (e.g. Roorda 2019).

There were also different interpretations of competence across Europe, ranging from the more prescriptive, rigid, skills-based perspective of the UK, to a looser, more developmental perspective found in some other partner countries (Shephard et al. 2018; see also the Introduction to this book).

In addition, it was clear that demonstration of a competence involved a set of other subskills, knowledge and attitudes and a realisation that a full articulation involves a level of complexity that can be confusing and off-putting for users and run counter to the systemic and holistic way of thinking that characterises so much of sustainability discourse (Vare et al. 2019).

For educators, the dilemma remains as to where to focus their efforts—the act of doing, the underpinning and related knowledge, or the values conveyed. One might wonder whether having a commitment to sustainability with its implicit values is a pre-requisite to achievement, or whether being able to act in an appropriate way is sufficient. Shephard (see Chap. 6) argues that, in addition to having the capability and the possession of sustainability values, there should also be a willingness or motivation to act. This in turn raises issues in terms of assessment, particularly in defining acceptable means for students to demonstrate their intent (see Chap. 21).

In confronting these issues, the project team adopted a pragmatic approach. The competences were kept to a core 12 in order to produce something useable and achievable, but with lists of learning outcomes and underpinning knowledge for those who were looking for more depth and detail.

The level of competence was also left open to interpretation in recognition of the varying contexts in which they were to be applied, with some partners aiming them at International Standard Classification of Education (ISCED) Level 3 and others at Level 7. Although expressed as competences, they were also viewed as developmental and progressive.

In addition, it was felt that although certain values were desirable, it was perhaps unethical and inappropriate to demand an educator to necessarily hold a prescribed set of values. An anal-

ogy could be that of teaching religious education, whereby it is possible to teach about different belief systems, without necessarily holding (or promoting) a faith of one's own. This in turn challenges the *Responsibility* competence, which calls on educators to be role models.

Graphic Representation

Having established a core set of 12 competences that aligned with the columns of the UNECE framework, RSP was portrayed initially using a grid layout as shown above. This was convenient as it hinted at its heritage, had a presentational simplicity and was helpful for course design and potentially assessment plans.

The danger with adopting such a design however, is that it can lead to a linear interpretation with trainers and students tending to adopt a reductionist approach to the competences, considering them as individual and discrete items to be viewed and used one at a time.

This runs counter to the philosophy behind the idea of the educator as a system with the various competences acting and interacting together in different combinations according to context. In an attempt to overcome this, the RSP competences are depicted on an artist's palette (Fig. 5.1) with the educator mixing and using them as required to suit their context.

Pedagogical Approach

The vocational background to competences has the potential to suggest a 'skills-training' approach to implementation as one might, for example, teach machinery operation or booking-in procedures at a hotel. This conveys the image of a technocratic, task analysis exercise whereby the whole process is divided into steps to be followed in which the student is then trained. This is not in keeping with most perceptions of the teaching process, and of education for sustainability in particular, which tend to favour a social-constructivist, critical pedagogy in which knowledge is co-constructed and which is designed to empower and develop agency and independence of thought.

This issue remains unresolved within the project. Activities supplied as examples of how the competences could be developed largely imply a constructivist pedagogical approach, but there is still the question as to whether that approach should be articulated explicitly as 'the way to do this'.

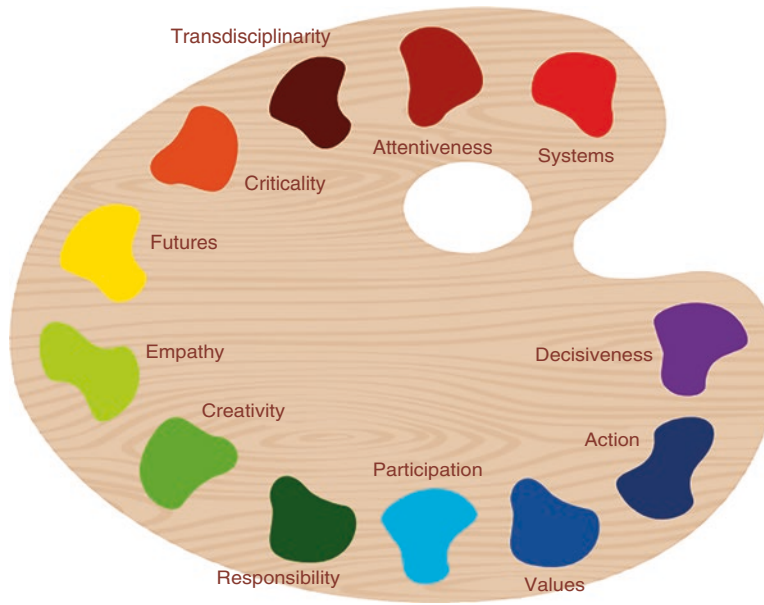

Fig. 5.1 The RSP Palette

Learning Outcomes

Despite—or perhaps because of—the competence framework having a strong heritage and having been tested rigorously, it offers a set of outcomes prescribed by 'experts'. The power and control over what is to be learned is therefore determined by someone other than the learner.

This is not in the spirit of the critical pedagogy that the project team preferred, in fact it is more in line with a traditional, transmissive 'banking' approach (Freire 2005) to education. Ultimately, this was deemed acceptable because the competences, although predetermined, were expressed simply as a range of capabilities rather than a prescription of how and when these should be applied.

Assessment

The challenge of assessing competences has been reported on elsewhere (see, for example, Redman et al. 2020) with now familiar questions as to what evidence is appropriate (e.g. witness statement, photos, journals, reflections), how much is enough (evidence of all components needed?) and how level is determined (see Chap. 21).

Partners have responded to this challenge in different ways depending on context, need and level hinting at the absence of a perfect, transferrable method. Example approaches can be found on the website https://aroundersenseofpurpose.eu/.

Another issue arises when considering what is actually being assessed. Given that ESD is concerned with transformation, is demonstration of the competences sufficient or should we be looking for evidence of transformation and if so, of the educator, the educator's learners or of the learners' impact on society? This in turn relates back to the issue mentioned earlier as to whether assessment should be of the learner's ability to perform, the intent or values behind their abilities and/or their motivation and willingness to act (Chap. 6).

Where Next?

At the time of writing the project is nearing the end of its second phase and approaching successful completion of its objectives, i.e. an ESD competence framework with links to the SDGs, a full set of example activities that address the competences and SDGs, a website and publication of a range of academic papers and a (this) book about competences.

The hope is that the framework will be used increasingly to help develop educators who will, in turn, educate people for *a rounder sense of purpose*, in-tune with the needs of the planet and of the need to create change to help meet those needs.

There is much work still to be done in equipping people with the knowledge, skills and values necessary to participate in working towards a sustainable world. It is hoped that the RSP framework can play a significant part in clarifying what it takes to be an educator who can help develop such people.

Project Partners

Duurzame PABO, The Netherlands (RSP I and II).

Frederick University, Cyprus (RSP I and II).

Haute Ecole Pedagogique du canton de Vaud, Switzerland (RSP II).

Italian Association for Sustainability Science, Italy (RSP I and II).

Kutato Tanarok Orszagos Szovetsege, Hungary (RSP I and II).

Tallinna Ulikool, Tallinn, Estonia (RSP I).

University of Gloucestershire, UK (project lead RSP I and II).

Universititat Oberta de Catalunya, Spain (RSP II).

University of Vechta, Germany (RSP II).

References

Barth, M., Godemann, J., Rieckmann, M. and Stoltenberg, U. (2007). 'Developing key competencies for sustainable development in higher education'. International Journal of Sustainability in Higher Education, 8 (4), pp. 416–430

Bendell, J. (2018) Deep Adaptation: A Map for Navigating Climate Tragedy. IFLAS Occasional Paper 2

Bertschy, F., Künzli, C. & Lehmann, M. (2013) Teachers' Competencies for the Implementation of Educational Offers in the Field of Education for Sustainable Development. *Sustainability*, 5, 5067–5080, doi:https://doi.org/10.3390/su5125067.

Carrascal, G, Magro, M., Anguita, J. & Espada, M. (2019). Acquisition of Competences for Sustainable Development through Visual Thinking. A Study in Rural Schools in Mixco, Guatemala. *Sustainability*, *11*, 2317

Curtis, W. & Pettigrew, A. (2009). *Learning in Contemporary Culture.* Exeter: Learning Matters

Freire P (2005) *Pedagogy of the Oppressed.* New York: Continuum

Frisk, E., & Larson, K. (2011). Educating for Sustainability: Competences & Practices for Transformative Action. *Journal of Sustainability Education.* Vol 2. ISSN: 2151-7452

Glasser, H. & Hirsh, J. (2016). Toward the Development of Robust Learning for Sustainability Core Competencies. *Sustainability, 9(3).* 121-134 DOI: https://doi.org/10.1089/sus.2016.29054.hg

Jucker, R. (2020) *Can We Cope with the Complexity of Reality: Why Craving Easy Answers Is at the Root of our Problems.* Newcastle, UK: Cambridge Scholars Publishing

Kopnina, H. & Cherniak, B. (2016). Neoliberalism and justice in education for sustainable development: a call for inclusive pluralism, Environmental Education Research, 22:6, 827-841, DOI: https://doi.org/10.1080/13504622.2016.1149550

Kumar, K. & Sarangapani P (2004). "Paper commissioned for the EFA Global Monitoring Report 2005, The Quality Imperative.

Lotz-Sisitka, H., Wals, A. E., Kronlid, D., & McGarry, D. (2015). Transformative, transgressive social learning: rethinking higher education pedagogy in times of systemic global dysfunction. *Current Opinion in Environmental Sustainability* 16, 73-80.

Lozano, R., Merrill, M.Y., Sammalisto, K., Ceulemans, K. & Lozano, F. J. (2017). Connecting Competences and Pedagogical Approaches for Sustainable Development in Higher Education: A Literature Review and Framework Proposal. *Sustainability* 2017, *9*, 1889-1904; doi:https://doi.org/10.3390/su9101889

Ojala M (2016). Hope and anticipation in education for a sustainable future in *Futures* 10:04 https://doi.org/10.1016/j.futures.2016.10.004

Purvis, B., Mao, Y. & Robinson, D. (2019). Three pillars of sustainability: in search of conceptual origins. *Sustain Sci* **14,** 681–695 https://doi.org/10.1007/s11625-018-0627-5

Redman, A., Wiek, A. & Barth, M (2020). Current practice of assessing students' sustainability competencies: a review of tools Sustainability Science https://doi.org/10.1007/s11625-020-00855-1

Reid, A.D., Jensen, B.B., Nikel, J. & Simovska, V. (Eds.) (2007). *Participation and Learning: perspectives on education and the environment, health and sustainability.* Dordrecht: Springer Press

Rieckmann, M., (2012). Future-oriented higher education: Which key competencies should be fostered through university teaching and learning? *Futures.* 44 127- 135

Roorda, N. (2016). The seven competences of a sustainable professional. The RESFIA+D model for HRM, education and training. Chapter 1 in *Management for Sustainable Developmen*t, Carolina Machado & J. Paulo Davim (eds.), River Publishers, Aalborg, Denmark, 2016, www.riverpublishers.com/book_details.php?book_id=348

Roorda, N. (2019). The Seven Sustainability Competences according to the RESFIA+D Model. *The Central European Review of Economics and Management* 3(3):45-87 DOI: https://doi.org/10.29015/cerem.781

Schumacher, E. F. (1997). *'This I believe' and other essays* (essay first published in 1974). Dartington: Green Books.

Selby, D., & Kagawa, F. (2010). Runaway Climate Change as Challenge to the 'Closing Circle' of Education for Sustainable Development. *Journal of Education for Sustainable Development*, *4*(1), 37–50. https://doi.org/10.1177/097340820900400111

Shephard, K., Rieckmann, M. & Barth, M. (2018). Seeking sustainability competence and capability in the ESD and HESD literature: an international philosophical hermeneutic analysis. In: Environmental Education Research. First Online: 24 October 2018. DOI: https://doi.org/10.1080/13504622.2018.1490947.

Schultz, T.P. (1960). Capital Formation by Education. *Journal of Political Economy* 68(1) pp571-583

Sleurs, W. (2008). *Competencies for ESD (Education for Sustainable Development) Teachers: A Framework to Integrate ESD in the Curriculum of Teacher Training Institutes; Curriculum, Sustainable Development, Competences, Teacher Training (CSCT);* Comenius 2.1 Project; UN: Brussels, Belgium, 2008; Available online: https://www.unece.org/fileadmin/DAM/env/esd/inf.meeting.docs/EGonInd/8mtg/CSCT%20Handbook_Extract.pdf (accessed 27 November 2020).

Sterling, S., Glasser, H., Rieckmann, M., & Warwick, P. (2017). 'More than scaling up': a critical and practical enquiry into operationalising sustainability competences. Chapter 10 in Corcoran, P., Weakland, J., Wals, A. (eds) *Envisioning futures for environmental and sustainability education.* Wageningen: Wageningen Academic Publishers

UNECE (2012). *Learning for the Future. Competences in Education for Sustainable Development*; UNECE: Geneva, Switzerland, 2011; Available online: https://www.unece.org/fileadmin/DAM/env/esd/ESD_

Publications/Competences_Publication.pdf (accessed on 21/12/2020).

Vare, P. (2019). Beyond the 'green bling': Identifying contradictions encountered in school sustainability programmes and teachers' responses to them. *Environmental Education Research*, 26:1, 61-80, DOI:https://doi.org/10.1080/13504622.2019.1677859

Vare, P.; Arro, G.; de Hamer, A.; Del Gobbo, G.; de Vries, G.; Farioli, F.; Kadji-Beltran, C.; Kangur, M.; Mayer, M.; Millican, R.; Nijdam, C.; Réti, M.; Zachariou, A. (2019). Devising a Competence-Based Training Program for Educators of Sustainable Development: Lessons Learned. *Sustainability*, *11*, 1890. https://www.mdpi.com/2071-1050/11/7/1890

Wiek, A., Withycombe. L., & Redman, C. (2011). Key competences in sustainability: a reference framework for academic programme development. Sustain Science, 6:203–218 DOI https://doi.org/10.1007/s11625-011-0132-6