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Chapter 13

A Rounder Sense of Purpose: Educator Competences for Sustainability *and* Resilience

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Abstract

This chapter takes the premise that, in order to create a sustainable world, we need to repurpose and refocus the education system to better equip individuals with the ability to recognise what changes need to be made to move towards sustainability and then how to participate in the implementation of these changes. It argues that there is a close link between sustainability and resilience and that by equipping individuals in this way not only helps to create a sustainable and resilient world, but one in which resilient societies and individuals will emerge. It reports on an Erasmus project, A Rounder Sense of Purpose, that developed a set of educator competences for sustainability designed to help facilitate this process through appropriately trained educators. It then uses the Dynamic, Interactive Model of Resilience (DIMoR) to analyse the role of the competences and to illustrate how they can help develop individual, societal and biodiversity protection and thus in the emergence of resilience.

Introduction

This chapter builds on themes introduced elsewhere in the book. It takes as a premise that resilience is needed—by individuals to cope with and act within a stressful and changing education system and with and within rapidly changing societies, and individuals *and* societies to deal with environmental change and the climate emergency (Chap. 1). However, as previously discussed, (see Chaps. 4 and 5) one perspective is that resilience can be considered as something that is needed to cope with what is, and thus needs to be taught or added eg strategies given to an individual to help them deal with stress, or something done to a society to help it deal with the impact of climate change eg construct a higher sea defence wall, or find a fall back supply of energy in case one fails. This can be considered as resilience *for* education, or resilience *for* life. This, however, suggests a fatalistic approach to the status quo and a passive acceptance. An alternative perspective is to think of education and societies as being structured in such a way that they do not demand resilience to be able to cope with them, but that they generate resilience in stakeholders at various levels through the process of education and the interactions that occur as part of this, and through the way that society is structured and acts (see Chaps. 3, 4 and 5). In other words, resilience emerges *through, or because of*, education and *through, or because of*, societal processes. It encourages actors to take a proactive, agentic, role in turn in creating education and societies that are conducive to the development of resilience.

The challenge is however, how to arrive at that point. In much of the world there is a long-standing tradition of education, democratic processes and economic theory and yet we have arrived at a situation where individual and societal health and wellbeing are threatened and the planetary systems that support and provide for human life forms are also at risk (see Chap. 1). If we take these threats seriously, then this suggests that something needs to change, that perhaps education needs to be refocused and repurposed and that our individual and collective actions and behaviours need to be scrutinised and evaluated through a lens that considers whether they are damaging other individuals,

societies and/or the environment, or are constructive and helpful — therefore judging as to whether they are sustainable actions which are helping to build individual, societal and ecological resilience.

The chapter reports on a European Erasmus plus project ‘A Rounder Sense of Purpose’ (RSP) that was designed to consider this by focusing on educators and the competences they would need in order to be educators for sustainable development. In other words, if education were to be considered as an engine or catalyst for change towards creating a sustainable and resilient world of resilient societies and individuals, what abilities would the educators need to be able to facilitate this. The chapter will present the framework of competences that was the outcome of this work and present its heritage and rationale. It will then analyse the result using the Dynamic, Interactive Model of Resilience (DIMoR) (Ahmed Shafi, Middleton, Millican, Templeton, Vare, Pritchard, & Hatley, 2020) to show how such an approach to education can help create resilient individuals, structures and societies and thereby contribute towards creating a sustainable world.

The Project

Some Context

Over the last century and particularly since the 1950s (see for example Carson, 1962), there has been growing unease and concern about the impact of human activity on the environment. The epoch in which humans have been roaming the planet and exploiting nature for benefit has been dubbed the Anthropocene (see for example Lewis & Maslin, 2018). Human nature and ingenuity is such that as a species we are constantly looking to explore and discover and to develop, progress and improve (Harari, 2015). This has clearly led to myriad exciting inventions and innovations that have enabled us to live longer and more healthily and in a way that is less labour intensive.

However, during this process, we have also been growing in number and as the human population increases, so have our expectations for food, housing, healthcare, comfort, travel and entertainment and this intensifies pressures on land use and production as we look to produce greater amounts to satisfy demand and endeavour to do so ever more efficiently and cheaply. This accelerating demand means the date at which we consume the Earth’s annual supply of replenishable resources each year is getting steadily earlier and, at the time of writing, was 29th July for 2019 (<https://www.overshootday.org/about/>).

The planet has been able to absorb and cope with much of this and has allowed us to continue to capitalise on its resources and exploit the potential provided. However, the signs that this is placing strain on planetary systems is increasingly evident and much research draws our attention towards melting ice caps, rising sea levels, increasing global temperature, species extinction, desertification and extreme weather conditions. In short, a climate and environmental crisis caused by human activity (see for example International Panel on Climate Change (IPCC) reports at <https://www.ipcc.ch/about/>).

It thus seems evident that things are going to change. This change could be forced upon us as ecological systems that we rely on break down or material resources run out, or we face up to the challenges ahead of us and work to avoid and mitigate where possible and prepare to deal with them where not.

However, this would take a radical shift in individual and societal attitude and approach whereby we accept the stresses we are creating, embrace the need to look for new ways of being and search for mechanisms that allow us to live in such a manner that does not rely on constant economic growth but has individual, collective and planetary health and wellbeing as a focus. In other words, it seeks to build sustainable and resilient individuals and societies.

The Role of Education

The world is constantly changing and at an ever-increasing rate (see Chap. 1), but any change is predominantly based on the same fundamental principles that are mostly emanating from Western civilisations. These principles are underpinned by capitalist ideology and assumes that planetary

resources are there for our use and for us to exploit in pursuit of wealth creation and accumulation (Moore, 2016). However, whilst this system has worked effectively in many ways, the profit motive has a tendency, if not unchecked, to lead to short termism and a belief that the planet can keep providing allowing us to continue to take, make, use and dump and to continue to grow and find new markets without factoring in and giving due consideration to environmental and social costs.

To change economic and social principles that have evolved over centuries will not be easy to achieve and if that change is to be a managed process rather than forced, it will be harder still. If it *is* to be managed and led by us in a conscious and deliberate way, then that means a change in our thinking and understanding—what Freire might call conscientisation (1972). A large influence on the way we think and understand the world comes from our education.

Much has been written about the purpose of education, but a crude distinction comes between (a) the idea that it is there to protect and perpetuate current societal values and practices and to preserve the status quo and (b) that it is there to encourage free and critical thought and thereby act as an instigator and engine of change. Arguably, much of Western education has been based on the former as it has focused on producing engineers, business leaders and workers able to fit into existing systems and to continue to produce efficiently and effectively to maximise profit using similar business and economic models (see for example Bates & Lewis, 2009; Curtis & Pettigrew, 2009; Marples, 2010).

So, if we accept that we are damaging the planet's support systems and threatening their, and consequently our, ability to be resilient and that we thus need to find sustainable ways of living, then there is a compelling argument to change the focus of education—to repurpose it so that people develop a different consciousness that encourages them to adopt a critical eye that is looking at our actions, structures and behaviours through a sustainability lens to see if they need to change in order to move towards a sustainable world, or at least to mitigate against the worst of climate disaster.

The Purpose of the Project

There have been a number of initiatives that have attempted to address this issue and to encourage thought and care for the environment through, for example, Environmental Education (EE), Education for Sustainable Development (ESD), Learning for Sustainability (LfS) and the Eco-Schools movement (<https://www.eco-schools.org.uk/>). More recent examples have focused on teacher education and there have been various attempts to produce frameworks that can guide and inform initial and in-service training. Perhaps the most notable of these was the United Nations Economic Commission for Europe (UNECE) Competences in Education for Sustainable Development (2011).

Whilst these efforts have all had some impact, recent government policy in the UK has been to sideline sustainability education and much headway that was made is now starting to lose traction (see Vare, 2014). Aside from the influence of governmental policy, another barrier to the widespread adoption of the UNECE competences was the fact that there are 39 of them which is, perhaps, over-complicated and unwieldy.

With this in mind, the Rounder Sense of Purpose Erasmus plus project was established with the aim of creating a simplified, distilled, user-friendly set of educator competences that built on the work that had gone before. Competences that could be used with and for different contexts and that developed educator ability to educate for sustainable development and, therefore, resilience.

The project was led by the University of Gloucestershire who worked in partnership with Tallinn University, Estonia; Duurzame PABO, The Netherlands; Italian Association of Sustainability Science, Italy; Frederick University, Cyprus; and the Hungarian Research Teachers' Association, Hungary. It was a 3 year project that, as well as creating a set of educator competences, aimed to design a pan-European qualification in Education for Sustainable Development.

Project Outcomes

The process for creating the educator competences was a rigorous one. It began with a careful reading of the UNECE competences and a distillation process in which statements with similar learning outcomes were matched together. New labels were given to the matched statements that encapsulated the essence of each competence and then the result was compared to other frameworks to search for any concepts that were missing. This was an iterative process that involved not only the six project partners, but consultation with experts from each of the partner countries.

A new set of 12 competences emerged that continued to fit into the UNECE framework of three columns and four rows. These were tested through a Delphi research procedure and trialled in different contexts. Results were shared and gradually a consensus formed around the content and wording of the competences. The final 12 were: Systems, Futures, Participation, Attentiveness, Empathy, Engagement, Transdisciplinarity, Innovation, Action, Criticality, Responsibility and Decisiveness. The three columns were entitled 'Holistic Approach', 'Envisioning Change' and 'Achieving Transformation' and the rows 'Integration', 'Involvement', 'Practice' and 'Reflection'.

Whilst the table form conveyed its UNECE heritage and had a neatness to it, there was concern that such a presentation suggested that the competences were separate and distinct and would be used in isolation. This was not the intention as clearly there was overlap between them and it was evident that in practice they would, and should, be employed flexibly and in different combinations. Different designs for representation were experimented with until agreement settled on the image of an artist's palette with the competences represented as different coloured paint that could be combined and used differently for different purposes.

The project team were pleased with the outcome of the work around the competence framework, but to achieve a pan-European qualification for Educators of Sustainable Development proved more problematic as (a) it was difficult to find an awarding body that was recognised in all participating countries and (b) each partner had different ambitions in terms of level and size of the award and as to which sector eg primary, or secondary it would focus towards. It was thus agreed that rather than attempt to create a single, one size fits all qualification, a more valuable approach was to use the framework as something to inform, guide and underpin qualifications and training programmes that were bespoke and which could be devised and implemented at a local level.

This revised approach to the qualification and the fact that, during the project cycle The United Nations' Sustainable Development Goals (SDGs) (2015) were launched, led to a further 3 year Erasmus plus project that aims to integrate the RSP framework with the SDGs and to provide example qualifications in each context.

The addition of new partners from Universitaet Vechta, Germany; Universitat Oberta de Catalunya, Spain and HEP Vaud, Switzerland have provided additional opportunities for testing the framework which is now presented in table form below (Table 1).

Or, as a palette as in Fig. 1.

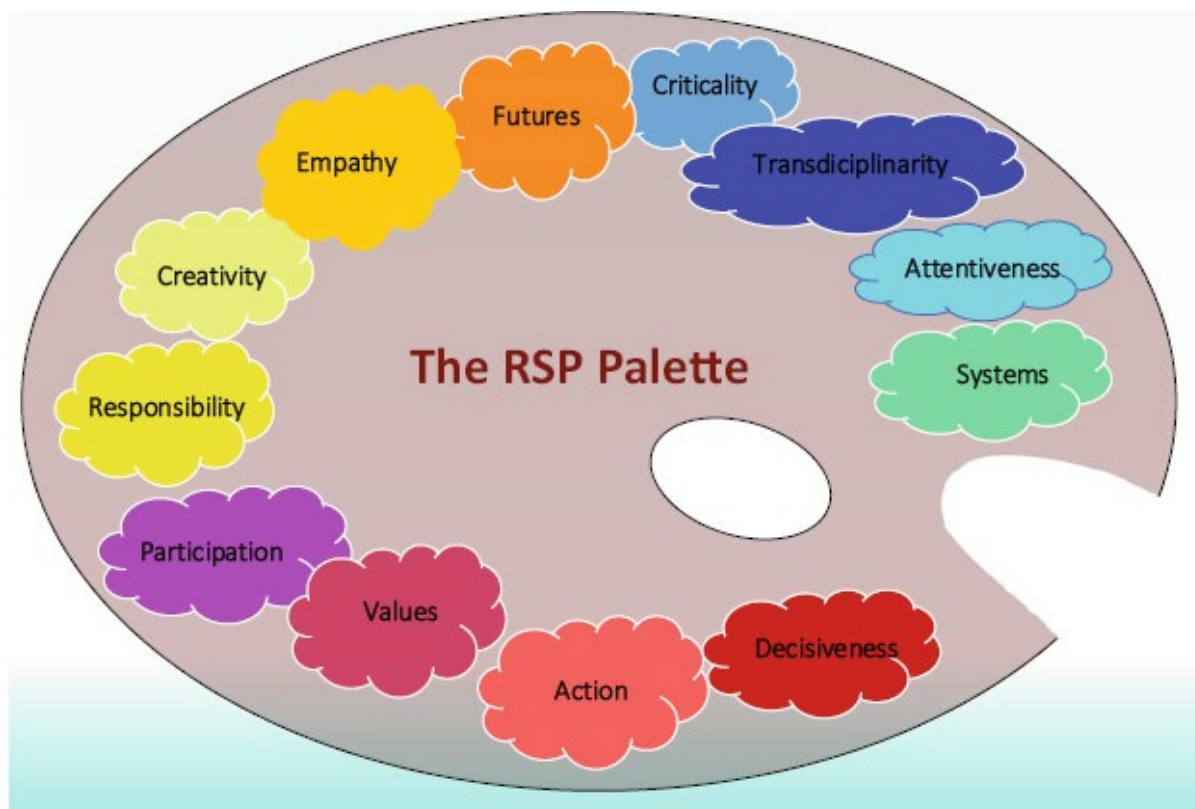


Figure 1 A Palette illustrating the framework.

Table 1 The RSP framework in table form

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

Each competence has been listed with a set of Learning Outcomes that the educator should help the learner to achieve and a set of underpinning components that the educator should be able to do. For example:

Systems

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 environment and consider the consequences of actions.

Table 2 Learning Outcomes: The educator helps learners to...

Learning Outcomes: The educator helps learners to...
<i>1.1 Understand the root causes of unsustainable development and that sustainable development is an evolving concept</i>
<i>1.2 Understand key characteristics of complex systems such as living environments, human communities and economic systems, including concepts such as interdependencies, non-linearity, self-organisation and emergence</i>
<i>1.3 Apply different viewpoints and frames when looking at systems, e.g. different scales, boundaries perspectives and connections</i>
Underpinning Components for the educator
In order to achieve the above Learning Outcomes the educator should be able to:
UC1 Identify the level of complexity and abstraction to be tackled with students and use techniques such as concept mapping, systems analysis, games, or structured research-based activities to make complexity accessible to them
UC1.1a Identify and discuss causes of unsustainability, be they environmental, social, cultural, political or economic
UC1.1b Understand and critique different models of sustainability
UC1.2a Explain the difference between systematic and systemic thinking
UC1.2b Understand and apply boundaries and frames to systems, look for interconnections and emergence and recognise feedback and unpredictability
UC1.2c Understand the difference between linear and circular economies
UC1.3a Analyse issues and contexts from different perspectives and from different levels of detail
UC1.3b Use different forms of thinking and logic to aid analysis, e.g. linear vs systemic approaches, scientific method and artistic interpretation

The project has produced a series of activities, materials and theoretical papers to support delivery of the framework which can be found at www.aroundersenseofpurpose.eu/, including materials to show how it could also help the educator to address the SDGs simultaneously. For a more detailed overview of the project process and outcomes, please visit the website, or see Vare et al. (2019).

A Rounder Sense of Purpose and Sustainability

The title of the project ‘A Rounder Sense of Purpose’ (RSP) hopefully encapsulates the essence of the framework. As mentioned earlier, arguably the existing focus of much of our education is on preparing learners to fit into society and to be ready to serve the needs of business. Indeed, on occasions we hear business leaders remark that young people are not equipped with the skills they need for work and politicians argue that education needs to be tweaked to better serve the economy. However, if we are to address climate and environmental concerns then it is not just more education we need but, as Schumacher states, ‘education of a different kind’ (in Sterling, 2001). A Rounder Sense of Purpose aims to equip educators to provide education of ‘a different kind’.

Rather than train educators to be technicians who are carrying out the wishes of others by delivery of prescribed syllabi, the framework encourages educator, and learner, agency and criticality.

Competences in the first column are about the need to think holistically—to recognise that we are all interconnected and that things that are happening in one context, ie to and within one system, have implications and impact on others. This is a fundamental need in order to achieve a sustainable world. There has to be widespread realisation that actions elsewhere eg forest clearance, dumping of waste, polluting of air cannot be ignored as the planet is a closed system and such events will not remain

within the boundary of the place it is happening, but will have knock on effects that will continue to spread across boundaries with long lasting impact.

This column encourages individuals to be attentive and aware of what is happening in the world and to not just accept actions and behaviours, but to evaluate them and critique them and to judge whether they are damaging to planetary systems, or are supportive. It recognises that there are different sources of knowledge and that there is a need to draw on these and operate in transdisciplinary ways in order to make judgements about actions and to consider alternatives.

Given that we are currently experiencing a climate emergency, there clearly is a need to change the way we behave individually and collectively. The first column is about identifying where those changes might need to take place and so the second column refers to competences needed to envision a different way of acting and being, in other words to envision the changes we need to make to ensure that we are living in a sustainable way.

Futures thinking is part of that, alongside the ability to be creative and innovative and to be able to imagine other ways of doing things. It is also about accepting the need to be responsible for one's actions and to be willing to be held to account for what we do. There are times when, particularly with hindsight, it becomes clear that actions taken were not the most appropriate and may have had a negative impact on the environment and we need to be willing to acknowledge and accept when this happens and learn from such occasions.

This middle column also contains the important competence of empathy as it recognises that change is difficult and that identifying evidence of, and causes of, climate and environmental disaster and consequent changes of behaviours needed can cause distress and upset. As a result, change needs to be managed carefully and sensitively with awareness of the needs and feelings of others. It is important to maintain hope for the future, but this needs to be realistic and based on what is achievable and therefore should not deceive or misrepresent reality.

Having acknowledged that changes are needed and alternatives identified, the final column is about developing the ability to achieve transformation, to make a difference. It encourages learners to appreciate that there are different ways to participate in change and to be aware of values that underpin beliefs and actions. It draws attention to the fact that sometimes it is difficult to make decisions as necessary information is not always available, but it helps learners to develop the confidence and ability to weigh up information available and to make decisions and take action where and when necessary.

The framework is intended to be used flexibly and could be used to inform a dedicated training course for educators and/or a dedicated education for sustainability course for learners. However, perhaps more importantly, it is intended to equip educators in general with the skills and attitude to approach any educating they do with an ESD mindset so that whatever the focus of the lesson or course they are encouraging learners to think holistically, to envision change and to act to help achieve transformation towards a sustainable world.

Sustainability and Resilience

Analysing the RSP framework and sustainability using the DIMoR (Ahmed Shafi et al., 2020), links between sustainability and resilience soon become apparent. Using Bronfenbrenner's (2007) notion of surrounding systems of Micro to Macro, it can be seen that these are housed within the local Ecosystem which is itself within the global planetary support system. In terms of the Chronosystem, the current time is the Anthropocene and of climate crisis. These in turn influence the development of systems within, which will then reciprocally influence the development or sustainability of the Ecosystems and Planetary support systems.

Taking a systems perspective, individual and societal trajectories will mean encounters with and within other systems. Individuals and societies can be considered vulnerable because of their

circumstances e.g. the surrounding planetary support systems (environment, ecosystem, water, air) are threatened or damaged, or invulnerable because the environment and ecosystems are healthy, diverse and strong. They can also be deemed to be protected because people are aware and have a positive mindset towards sustainable development (in other words have developed RSP competences), or at risk because of climate change denial, short termism, ignorance and a focus on continued growth.

Individuals and societies then, continue to change and develop throughout their life course. As they do so they will encounter and react to other systems, which will in turn react to them. Resilience emerges when there is a healthy balance between risk & protection and vulnerability & invulnerability and when individuals and societies recognise and accept that they are not just responding to climate crises, but also causing them and that there is a symbiotic relationship between us, individually and collectively, with the ecological systems surrounding us.

So, individuals and societies have agency and consequently have a responsibility to acknowledge and accept responsibility for their actions and decisions and to consider their impact on the systems around them. RSP competences help protect individuals and societies and thus can play a role in developing resilience and creating a sustainable world. By helping individuals to develop the confidence to critique, envision difference and participate in creating change, it empowers and gives a sense of individual agency and thus resilience. In so doing it creates societies of individuals who have a sense of whole, of interdependence, who have awareness of, and empathy for, humans and other life forms. This 'ubuntu' further empowers by giving a sense of shared agency and the belief that together it is possible to make a difference and to create a fairer, sustainable world. A virtuous circle of individuals working together for sustainability, and the societies developed offering more safety and protection for its individuals can then be imagined, whereby sustainability and the resilience of societies, the individuals within and the surrounding ecosystems go hand in hand.

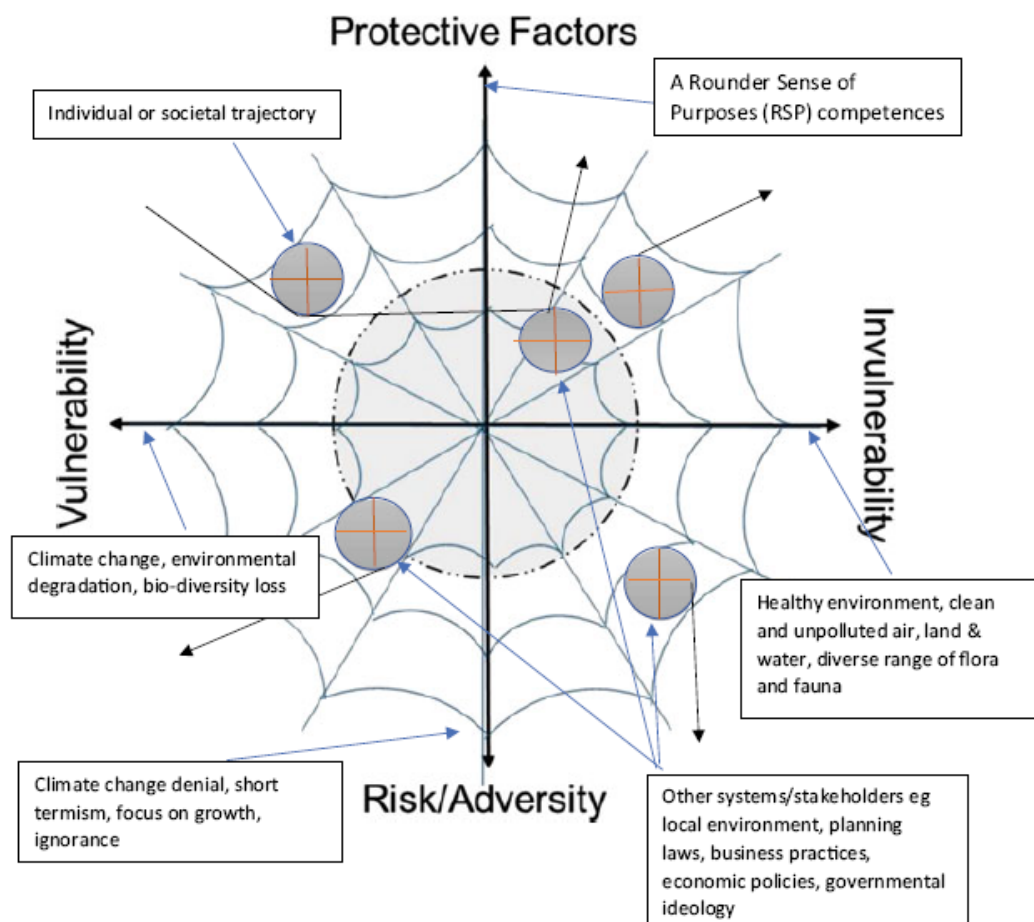


Figure 2 The DIMoR (Ahmed Shafi et al., 2020) and RSP competences as protective factors

Figure 2 uses the DIMoR (Ahmed Shafi et al., 2020) to show how the RSP competences can be perceived as protective factors and can help to develop a sustainable world in which, in turn, resilient individuals and societies emerge.

Conclusion

This chapter has argued that the planet is in an environmental and climate crisis and that this will enforce change upon the human race unless there is the collective will to tackle the root causes in order to avoid, or at least mitigate against, damaging possible outcomes. This would involve adopting a different mindset—one that views actions and behaviours with a critical lens, that recognises and acknowledges connections between and within systems and that has a sense of responsibility and agency.

It suggested that education has a role to play in developing this mindset, but that it needs to be refocused and repurposed if it is to do so. It thus makes the case for Education for Sustainable Development (ESD). It reported on a European Erasmus Plus project ‘A Rounder Sense of Purpose’ (RSP) that was established with various partner countries, to consider the competences an educator would need in order to approach education with a sustainability perspective.

The chapter then provided an overview of the twelve educator competences produced in the RSP framework and explained how they were developed providing a rationale for its design. Although the framework is a convenient way to present the competences, the chapter stressed that they are better viewed as on an ‘artist’s palette’ to be utilised and mixed together as and when appropriate rather than as separate and individual.

It showed how these competences are important in moving towards a sustainable world by collectively helping people to take a holistic, systemic view, to be able to envision alternative futures, and to have the confidence and ability to be able to participate in working towards change towards a fair and sustainable world. The chapter then made a link between sustainability and resilience, arguing that working towards sustainability in fact increases resilience in both individuals, societies and more broadly in planetary support systems.

The Dynamic, Interactive Model of Resilience (DIMoR) (Ahmed Shafi et al., 2020) was used as a framework for analysis to help illustrate these links. By representing individuals and societies within webs of support structures and interacting with and within other systems, it showed how, for example, the health of the planet can cause vulnerability or invulnerability. It then showed how RSP competences can act as protective factors as they develop individual and collective awareness, empathy and agency.

The chapter then posited that in such a way a virtuous circle could be created whereby individual and collective systems are seeking to create the conditions for sustainability in which resilient individuals, societies and ecosystems can emerge.

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Paul Vare is Postgraduate Research Lead and Course Leader for the Doctor of Education at the University of Gloucestershire's School of Education. Before joining the University in 2013, Paul worked for over 35 years in environmental education and education for sustainable development in the UK and on international development projects, chiefly in sub-Saharan Africa. For over a decade Paul represented European ECO Forum, a coalition of citizens' organisations, on various expert groups of the United Nations Economic Commission for Europe (UNECE) where he assisted in drafting the UNECE Strategy for Education for Sustainable Development. He is currently leading an international research project, A Rounder Sense of Purpose, which is developing a framework of competences for educators of sustainable development. Paul has a Masters of Philosophy Degree from Bristol University and a Doctor of Education from the University of Bath. Recently he co-authored a book with Prof. Bill Scott (University of Bath) called *The World We'll Leave Behind: grasping the sustainability challenge* that introduces a wide range of issues, concepts and strategies related to sustainable development. Paul's lifelong passion for the environment has been expressed through research, habitat management, drawing, painting, or simply walking in all weathers.