The importance of key skills *for* sustainable development

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Transforming Our World: Agenda 2030, adopted by the United Nations General Assembly in September 2015, is a plan of action for people, planet, prosperity and peace. It is a global framework to deal with the major challenges facing humanity and our planet. The Agenda incorporates seventeen Sustainable Development Goals to be achieved by the year 2030. These Goals are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental. The Goals are universal, meaning that all countries and all people have a responsibility to act to realise the Goals, both at home and overseas. Taken together, the seventeen Goals with 169 targets represent an ambitious but imperative plan to secure a sustainable, peaceful, prosperous and equitable life for all people, everywhere, now and in the future (United Nations, 2015).

Figure 1: The Sustainable Development Goals

In 2017, UNESCO (United Nations Educational, Scientific and Cultural Organization) published a document entitled *Education for Sustainable Development Goals: Learning Objectives*. This document outlined eight key competencies relevant for the Sustainable Development Goals. These competencies are an internationally recognised standard in relation to learner acquisition of higher order skills, dispositions and values vis-à-vis sustainable development.

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	The ability to:
Systems thinking competency	recognize and understand relationships
	analyse complex systems
	think of how systems are embedded within different domains and different scales
	deal with uncertainty
Anticipatory competency	understand and evaluate multiple futures – possible, probably and desirable
	create one's own visions for the future
	apply the precautionary principle
	assess the consequences of actions
	deal with risks and changes
Normative competency	understand and reflect on the norms and values that underlie one's actions
	negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interest and trade-offs, uncertain knowledge and contradictions
Strategic competency	collectively develop and implement innovative actions that further sustainability at the local level and further afield
Collaboration competency	learn from others
	understand and respect the needs, perspectives and actions of others (empathy)
	understand, relate to and be sensitive to others (empathetic leadership)
	deal with conflicts in a group
	facilitate collaborative and participatory problem solving
Critical thinking competency	question norms, practices and opinions
	reflect on one's own values, perceptions and actions
	take a position in the sustainability discourse
Self-awareness competency	reflect on one's own role in the local community and (global) society
	continually evaluate and further motivate one's actions
	deal with one's feelings and desires
Integrated problem-solving	the overarching ability to apply different problem-solving frameworks to complex sustainability problems
	develop viable, inclusive and equitable solutions that promote sustainable development, integrating the other competencies

Figure 2: The eight key competencies for sustainable development (UNESCO, 2017: 10)

Actioning a recommendation in the National Strategy for Education for Sustainable Development (2014-2020), in 2018 the National Council for Curriculum and Assessment published a study mapping the eight key competences for sustainable development onto early childhood to post-primary curriculum frameworks in Ireland.

The Framework for Junior Cycle (2015) stipulates that throughout junior cycle, students develop their proficiency in eight key skills as they engage with different learning experiences and assessment approaches from across the curriculum.

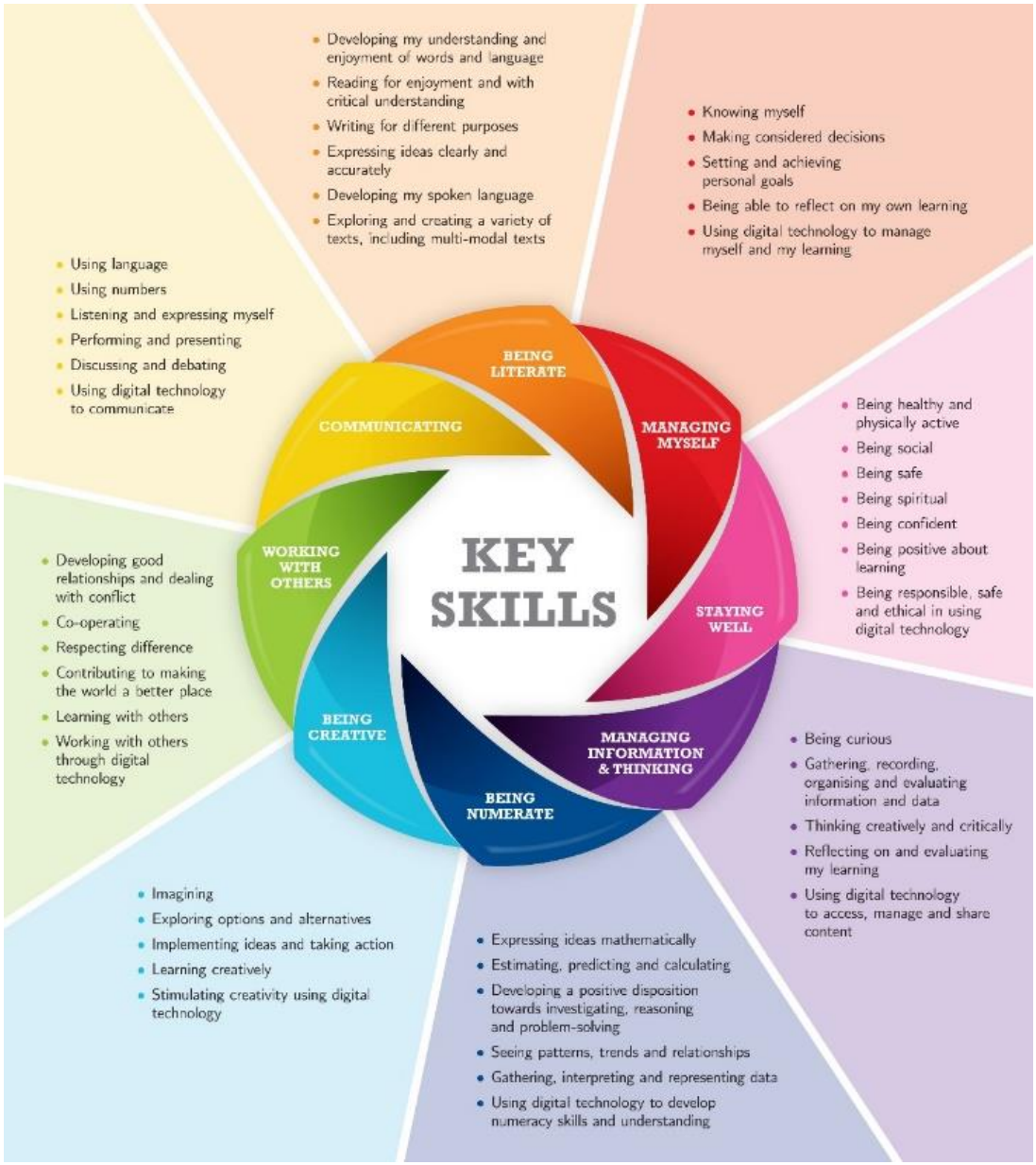

Figure 3: The eight key skills of Junior Cycle

Each key skill is made up of several elements, as above in Figure 3, and each element has an associated set of learning outcomes, which describe what learners are expected to know and be able to do. The NCCA (2018) study mapped the eight key skill elements and their associated learning outcomes against the UNESCO key competencies for sustainability, and found that explicit connections could be made as below in Figure 4:

UNESCO key competency	Managing myself	Staying well	Managing information & thinking	Being numerate	Being creative	Working with others	Communicating	Being literate
Systems thinking		X	X	X	X		X	
Anticipatory	X	X	X	X	X	X	X	
Normative	X	X	X	X	X	X	X	
Strategic	X	X	X		X	X		
Collaboration	X	X	X		X	X	X	
Critical thinking	X	X	X		X	X		
Self-awareness	X	X			X	X		
Integrated problem-solving	-	-	X	X	X	X	-	

Figure 4: Mapping the UNESCO Key Competencies to the Junior Cycle Key Skills

It is evident there is comprehensive coverage of the UNESCO key competencies for sustainability across the junior cycle key skills.[1] To get a better sense of how the mapping was carried out, it is useful to look behind the scenes of what was presented in the NCCA study. Since the key skill of Being Creative was found to be especially relevant, this is the most obvious skill to take as an example. However, it is important to point out, that although the remainder of this article focuses on Being Creative, there are elements of creativity in other key skills – not least, Thinking Creatively and Critically in the key skill of Managing Information and Thinking. The focus on the key skill of Being Creative is for illustrative purposes only.

"You can't use up creativity. The more you use, the more you have." Maya Angelou (1928-2014), African American poet, author and civil rights activist

In terms of the UNESCO key competences, the abilities that have the potential to be activated through the junior cycle key skill of Being Creative are those in blue in Figure 4 (above). These abilities are, in the main, activated through the Being Creative key skill elements of:

- Exploring options and alternative
- Imagining

[1] The UNESCO key competencies for sustainability are high-level competencies, which assume that learners have a pre-existing set of foundational competencies. It is for this reason that the competencies cannot be explicitly mapped onto the junior cycle key skill of Being Literate. However, there are links between the key competencies and the key skill of Communicating, a higher-order key skill which builds on Being Literate.

- Implementing ideas and taking action

More specifically, these aspects of the key competencies can be linked to a selection of learning outcomes (articulated in the student voice) associated with these three Being Creative key skill elements. These learning outcomes are presented below in descending order of relevance where the key competences are concerned:

Exploring options and alternative:

I can…

- take risks and learn from my mistakes and failures
- seek out different viewpoints and perspectives and consider them carefully
- imagine different scenarios and predict different outcomes
- repeat the whole exercise if necessary
- try out different approaches when working on a task and evaluate what works best
- think through a problem step-by-step

Imagining

I can…

- take inspiration from the courage and imagination of others
- imagine ways that I can make a positive difference in the world
- express my feelings, thoughts and ideas through movement, writing, music, art, storytelling, drama and imaginative modes of expression

Implementing ideas and taking action

I can…

- see things through to completion
- evaluate different ideas and actions
- test out ideas

So, how does this mapping relate to subject and short course specifications? Junior cycle curriculum specifications, both for subjects and short courses, largely follow the same template. This template includes an 'Overview: Links' section which details the links between each specific subject/short course and the junior cycle statements of learning and key skills. The key skill links section highlights examples of key skill elements addressed in each specification, with associated examples of student learning activities. The key skill elements and examples of learning are not meant to be exhaustive, rather they are indicative of what is possible. However, because the template is finite, it is likely that those involved in curriculum specification production use this section to flag the most relevant key skill elements and the most obvious student learning activities.

In descending order, according to frequency of mention, the Being Creative key skill elements mentioned in the key skill links section of junior cycle specifications (subjects and short courses) are:

- Exploring options and alternatives
- Learning creatively
- Imagining
- Implementing ideas and taking action
- Stimulating creativity using digital technology

The Being Creative key skill element that is most frequently mentioned Exploring Options and Alternatives appears in nine subject specifications and three short courses. Learning Creatively appears in five subjects and one short course. Imagining appears in three subjects and two short courses. Implementing Ideas and Taking Action is mentioned in two subjects and two short courses. Lastly, Stimulating Creativity and Using Digital Technology is in two subjects and one short course. Most subjects/short courses highlight one element per key skill in the links section of the specification template, but there are exceptions, with two subject and one short course specification flagging more than one Being Creative element.

This means that the Being Creative key skill elements that are most conducive to UNESCO's key competencies for sustainability are broadly the very key skill elements that are prioritised in junior cycle specifications. What did the producers of the specifications envisage that students would be doing as they put the various Being Creative key skill elements into practice? Is it possible to see the UNESCO competencies in the sample student learning activities detailed in the Links (key skill) section of the specifications? In the interests of brevity, below are some examples of the sample student activities given for the Being Creative key skill elements in both subjects and short courses. The focus is on the Being Creative keys skill elements that are most relevant from a key competencies of sustainability perspective.

<u>Exploring options and alternatives</u>

- Geography: Students learn about global issues such as climate change and explore mitigation and prevention options.
- Philosophy: Students choose appropriate problem-solving techniques as they attempt to solve problems through argument. To do this they will seek out different viewpoints and perspectives, imagine different scenarios and outcomes, and be prepared to change their mind.
- Visual Art: Students experience and experiment with visual art processes such as observing, imagining, making and investigating through a wide range of media including digital methods.

<u>Imagining</u>

- Civic, Social and Political Education (CSPE): Students use their imaginations to:
  - develop empathetic thinking by considering issues from different perspectives
  - take inspiration from the community leaders and activists they encounter in their research and in person
  - envision ways that they can make a positive difference in the world.
- English: Students engage frequently with literary narratives and will compose imaginative narratives of their own.

- Religious Education: Students will imagine ways that they can be a force for good in the world and take inspiration from sharing stories of people of courage, conviction and imagination.

Implementing ideas and taking action

- Business Studies: Students will generate ideas on products/services in a creative environment and will be empowered to realise these ideas.
- Coding: Students brainstorm and generate ideas for design and implementation of solutions and projects.
- Home Economics: Students apply the design brief process in the making of a textile item for the individual or the home.

These sample student activities extracted from specifications are from a mix of short courses and subjects. There are short courses and subjects with explicit sustainable development content to be learned (education *about* sustainable development), as well as encouraging UNESCO key competencies through associated key skill elements (education *for* sustainable development). There are other short courses and subjects that where content about sustainable development may be addressed if the teacher is so motivated, and the integration of key skills into learning outcomes are the main driver for creating opportunities for teachers to employ active methodologies which in turn have the potential to contribute to student engagement with UNESCO key competencies.

Conclusion

UNESCO describe the key competencies for sustainability as 'necessary for all learners of all ages worldwide' and state that they are 'transversal, multifunctional and context-dependent' (UNESCO, 2017: 10). While the focus in this article was on junior cycle level three and especially on the sample key skill of Being Creative, there are ample opportunities for key competency building in level two and level one priority learning units and short courses.

The experience of the Get up and Goals project and partner initiatives like ETBI's Take One programme in recent years has highlighted huge potential to build the key competencies for sustainability across the junior cycle programme. Celebrating what is happening in short courses and subjects raises awareness of the possibilities that exist for valuable cross-curricular work and indeed the need for teachers to be supported to become familiar with subjects and short courses beyond their own, both in terms of content and skills/competencies; and, for appropriate time to be dedicated to planning to ensure that teaching, learning and assessment *about* and *for* sustainability is optimised for all students and for the sake of our world.

Bibliography

DES, 2014. *National Strategy on Education for Sustainable Development*. Available: https://www.education.ie/en/Publications/Education-Reports/National-Strategy-on-Education-for-Sustainable-Development-in-Ireland-2014-2020.pdf

DES, 2015a. Framework for junior cycle 2015. Available: https://www.education.ie/en/Publications/Policy-Reports/Framework-for-Junior-Cycle-2015.pdf

Junior cycle short course and subject specifications: www.curriculumonline.ie

United Nations, 2015. Transforming our world: the 2030 Agenda for Sustainable Development. Available: https://sustainabledevelopment.un.org/post2015/transformingourworld

UNESCO, 2017. *Education for Sustainable Development Goals: Learning objectives*. Available: http://unesdoc.unesco.org/images/0024/002474/247444e.pdf