A guide to meta-skills across the curriculum

September 2021

Making skills work for Scotland

Introduction

This paper explores what is driving the need to embed skills more effectively across education, and proposes a focus on meta-skills to achieve this. It provides a suggested approach and introduces a toolkit of guidance and support to deliver this in a manageable and sustainable way.

Adopting the consistent use of meta-skills offers a common skills vocabulary for practitioners, learners, parents and carers, and other partners to help learners better recognise and articulate their skills development.

The SDS meta-skills toolkit will help establishments take forward a systematic and progressive approach to developing meta-skills as an integral part of children and young people's education.

Educational Context

Nobody can predict the jobs of the future. Some reports suggest that 65% of current P1 pupils will work in jobs that don't yet exist[1]. Education needs to respond to this and equip young people with the skills required to thrive in a future which is increasingly fast changing and unpredictable.

Education policy and guidance in Scotland recognises the need to respond to this challenge.

Skills development features as one of the four priorities in the National Improvement Framework[2].

'Improvement in employability skills and sustained, positive school leaver destinations for all young people'.

More than a decade ago, Building the Curriculum 3[3] and 4[4] established the need to weave skills through Scotland's curriculum. The refreshed narrative on Scotland's curriculum[5] reinforces the imperative for a systematic and progressive approach to skills development.

'Maximising opportunities that develop the four capacities for learners, making clear links to future skills, for example meta-skills'.

'Recognise the knowledge, skills and attributes that children and young people need to acquire to thrive in our interconnected, digital and rapidly changing world'

Refreshed Curriculum for Excellence narrative, 2019

Developing the Young Workforce[6] and, particularly, the Career Education Standard (3-18)[7] highlight the entitlement for children and young people to develop skills as an integral part of their education and places expectations on teachers and other practitioners to play their role in ensuring this.

More recently, the OECD report 'Scotland's Curriculum for Excellence: Into the Future'[8] makes frequent reference to the importance of skills development alongside knowledge as a pre-requisite for future success.

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1   https://reports.weforum.org/future-of-jobs-2016/
2   https://www.gov.scot/publications/2021-national-improvement-framework-improvement-plan/
3   https://education.gov.scot/Documents/btc3.pdf
4   https://www.education.gov.scot/Documents/btc4.pdf
5   https://scotlandscurriculum.scot/
6   https://www.gov.scot/publications/developing-young-workforce-scotlands-youth-employment-strategy/
7   https://www.education.gov.scot/Documents/dyw2-career-education-standard-0915.pdf
8   https://www.oecd.org/education/scotland-s-curriculum-for-excellence-bf624417-en.htm

Future Jobs and Future Skills

In Scotland, as across the world, labour markets are changing ever more rapidly. Growth in automation and artificial intelligence, globalisation, demographic change, and the climate emergency are some of the factors driving this.

Jobs are disappearing or being reshaped[9], and new jobs created at an unprecedented rate. COVID-19 has emerged as a major new shock to the world's economies.

"Technological and societal disruptions are coming at us thick and fast. Whilst we cannot predict the future, we can prepare for a future that is increasingly unpredictable. A focus on skills and human capital gives us a strong foundation from which to build a sustainable and inclusive Scottish economy. Scotland's citizens need the skills not only to cope with the change but to thrive in it, and more so to be able to exploit novelty and create change for themselves."

Skills 4.0 - A skills model to drive Scotland's future, 2018

The Scotland Future Skills Action Plan[10] recognises Scotland's need for a skills system that is agile and adapts to the rapidly evolving labour market.

The imperative now is for children and young people to understand why developing skills matters for their and Scotland's future and to have the chance to identify, discuss and profile these skills.

Meta-skills

Meta-skills are innate, timeless, higher-order skills that create adaptive learners; able to succeed whatever the future brings.

From birth, children use and develop meta-skills as they test and explore the world around them. They provide the keys to unlock the acquisition of other transferable and technical skills.

As children and young people progress through their education, it is essential that practitioners nurture and develop their meta-skills so they can navigate a world which is increasingly complex and unpredictable.

The learning environment should make meta-skills explicitly visible for all learners and create opportunities for them to recognise, understand, articulate, and record their skills development.

"The process of extending our physical and mental reach beyond our current limitations rests upon our ability to learn, create and cooperate. Learning unlocks the ability to master skills any situation may require..."

Dr Melis Senova, Meta-Skills are the Key to Human Potential, 2020

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[9]   http://www3.weforum.org/docs/WEF_Future_of_Jobs_2018.pdf

[10]   https://www.gov.scot/publications/scotlands-future-skills-action-plan/pages/12/

Skills 4.0

The SDS meta-skills toolkit builds on the earlier paper 'Skills 4.0 - A skills model to drive Scotland's future'[11]. The Skills 4.0 model proposes 12 meta-skills organised under three themes.

Self-Management: Manage the now
Coping with on-going change to support wellbeing, growth, performance and productivity.

Social Intelligence: Connect with the world
Connecting and collaborating with others to effectively navigate and negotiate complex social relationships and environments.

Innovation: Create our own change
Defining and creating significant positive change.

There are many other skills models from a wide range of sources Deloitte[12], Ernst Young[13] and the World Economic Forum.[14]
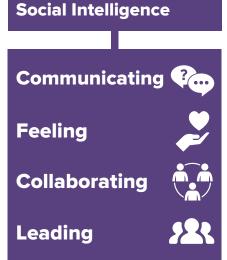
Each uses their own, often subtly different, skills language, but what is clear is that all these models describe the same underpinning themes as the essential skills for the future. The ability for self-management, to build and maintain complex relationships and to be creative in identifying, analysing, and solving problems.

Each meta-skill should not be considered in isolation. The many interdependencies between them mean each one supports the development and draws on the application of others across the model.

For example, an individual needs the capacity to focus on a challenge to allow for creativity and innovation in coming up with solutions. They will then need initiative to make their ideas become a reality. Concepts such as emotional intelligence, enterprise and confidence are all constructed from selected underlying meta-skills.

Skills 4.0 A skills Model to Drive Scotland Forward.

Self-management	Social Intelligence	Innovation
Focusing	Communicating	Curiosity
Integrity	Feeling	Sense-making
Adapting	Collaborating	Creativity
Initiative	Leading	Critical thinking

11 https://www.skillsdevelopmentscotland.co.uk/media/44684 /skills-40_a-skills-model.pdf

12 https://www2.deloitte.com/content/dam/insights/us/articles /6332_From-skills-to-capabilities/6332_Skills-change-capabiliites-endure.pdf

13 https://fscareers.ey.com/students/bring-yourself/what-are-the-future-skills-and-how-can-you-improve-them/

14 http://www3.weforum.org/docs/WEF_Future_of_Jobs_202 0.pdf

Developing a skills approach

Having considered the importance of developing meta-skills, the next step is to consider how this is implemented. Leadership is a key factor in the successful adoption and deployment of a common skills framework in a school or college.

1. Commit

- Build a case for why a skills framework is needed – what are the benefits to learners?

- Practitioners need to understand their own role in this so that they can support a common language for skills and be committed to the use of the skills framework.

- It is essential to identify the roles and responsibilities of senior management and pastoral staff, as well as practitioners in this process.

- Do things differently, not do different things. Approach the same planned learning in a different way to make embedding skills manageable and meaningful.

- Communicate the skills framework to other interested parties including partners, employers, and carers and learners. By adopting the same meta-skills language, learners' understanding of the underpinning skills will be strengthened.

2. Embed

- Develop and implement a process to sustain the embedding of skills across the curriculum.

- Identify skills when planning learning and include these within the learning intentions and success criteria.

- Allow time for learners to think and reflect about the skills they are using. By discussing skills in this way, learners will identify the skills they are using and be aware of how well they are using them.

- Provide opportunities for departments and practitioners to provide feedback on the use of materials and share good practice to ensure consistency.

- The approach should be developed and managed by one or more practitioners, and support a sense of ownership within all staff.

- Learners need to have opportunities to share the skills developed during extracurricular activities they have.

2. Mainstream

- Review the effective use of the skills framework and the tools/resources that are used as part of everyday learning and teaching.

- Discussions about skills can be naturally woven across the curriculum making links with skills applications within formal education and beyond.

- Start early and embed throughout a learner's journey from primary to secondary and into further learning and beyond.

- Schools and colleges should work together to ensure that a common skills framework is used throughout the learner journey from primary. through secondary school to college and beyond.

The SDS meta-skills toolkit

This toolkit has been developed through consultation with educators and other partners to create a suite of resources that will support practitioners embed meta-skills in a manageable and sustainable way.

This approach is not mandatory, and the toolkit is provided as a resource for those who would like support, are struggling for time or ideas, or who are looking for some inspiration and guidance as they develop their own approach to embedding meta-skills.

The toolkit can be found here.

The toolkit comprises of several resources that will be added to over time. Resources are categorised under the following areas.

Guidance and Support
Resources that outline the drivers behind the meta-skills toolkit and provide guidance on how to develop this approach.

Progression Framework
Examples of how meta-skills can be developed through CfE levels, from early years to senior phase.

Professional Learning
Resources to support practitioners with their understanding and implementation.

Lesson Plans
Lesson plans with supporting worksheets and presentations that support skills development.

Learner Tools
Tools to support pupils to reflect on their meta-skills and identify which they will focus on developing.

Lesson Starters and Finishers
Slides that can be used by practitioners to support visibility and discussion of meta-skills at the start/end of lessons.

Lesson Inserts
'Bite size' activities and videos that can be used by practitioners to further develop and contextualise meta-skills.

Other Resources
Additional resources to support practitioner/pupil understanding and engagement.