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# Speaking the same language about skills: a summary of World Economic Forum's Taxonomy for the Future of Learning



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*The World Economic Forum (WEF) has been leading a global initiative to improve education for skills. In January it published the report **Defining Education 4.0: A Taxonomy for the Future of Learning** with support from the LEGO Foundation. In this article, we're summarizing our key takeaways.*

**Education must prepare young learners for the future**

The world of business and society are changing. Rising inequality, disinformation, the effects of climate change and rapid advancements of technology are just a few of the trends we're seeing. And with this the skills children need to navigate life and work, are changing too. Yet, less than half of the world's children are on track to develop the skills they need to thrive, according to [UNESCO](#).

Children need to learn to collaborate, to have empathy and kindness, to look after each other and the environment, as well as to solve problems and think critically. These skills are important for living fulfilled lives just as much as they are important to contribute to the labour market and society at large.

Historically, education systems around the world have emphasized acquiring knowledge and information and de-prioritized interpersonal skills. This needs to change.

*"The future of education lies in empowering young learners to embrace and develop their uniquely human qualities – those unlikely to ever be replaced by technology." – World Economic Forum, Defining Education 4.0: A Taxonomy for the Future of Learning Report*

Research has found that a breadth of skills can support academic [performance](#) and promote psychological wellbeing of [children](#). In short, education systems around the world need to transform to prepare young learners and entire societies for the future.

## **Creating shared understanding to drive the skills agenda forward**

Through engaging with its network across governments and the private sector, WEF identified that education providers (on the supply side) and the business community (on the demand side) do not have a common language when it comes to talking about skills.

Shared definitions and understanding are essential to drive the skills agenda forward, encourage investment and guide implementation of innovative pedagogies from an early age. In 2020, WEF developed the **Education 4.0 framework** for the teaching and learning of skills required in the 21st century.

Now, this newly developed *skills taxonomy* builds on that framework, clearly spelling out *Education 4.0* abilities, skills, attitudes and their associated definitions to create a bridge between businesses and education providers.

The taxonomy is built on three aptitudes: (1) abilities and skills, (2) attitudes and values, and (3) knowledge and information. It places particular focus on abilities and skills as well as attitudes and values as these are the most important according to experts and **employers**. The taxonomy then breaks down the aptitudes into two more detailed levels. For example, on level 2, abilities and skills are broken down into cognitive, interpersonal and physical skills. Cognitive is then broken down into definitions for creativity, critical thinking and digital skills and programming and so forth. The rationale behind this structure is to provide confidence for business and education communities that they are talking about the same skills and concepts when pursuing partnerships and projects. In short, for supply and demand to match.

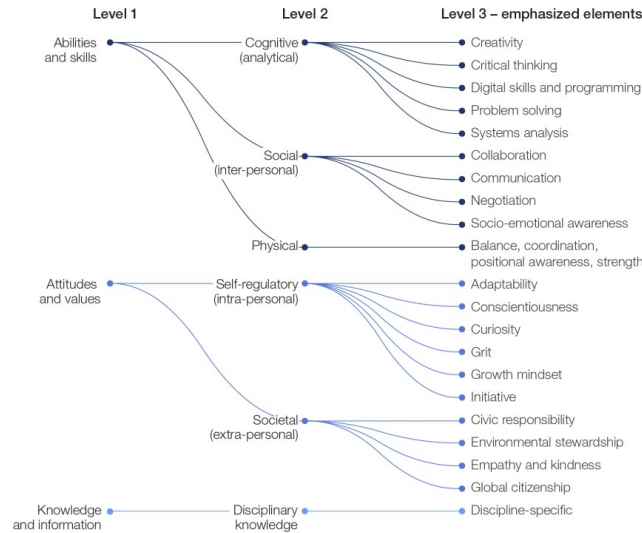
## **Abilities and skills**

The Taxonomy describes **abilities and skills** as “the set of process-oriented capabilities that enable an individual to achieve a specific goal.”

**Attitudes and values** on the other hand are “beliefs that inform self-regulatory behaviour, such as personal motivation, and engagement with the broader society, such as moral or ethical considerations.” Attitudes are about *why* something should be done and about motivating learners to nurture resilience to overcome challenges, including the challenge of learning itself. Values support learners to resolve conflicts through reasoning rather than deceit,

violence or abuse of power. Teaching attitudes and values helps children to become resilient lifelong learners and active global citizens.

## The Education 4.0 Taxonomy



Source: World Economic Forum

## Teaching through real-world challenges is more effective – and more fun

Aptitudes are often abstract and therefore hard to teach in isolation. Effective teaching happens through a concrete case or real-world problem. This doesn't only effectively nurture one skill but often develops multiple at once. This is highly useful in real-life and fosters lifelong learning.

**Learning through play** is one of the effective learning methods that teach skills and values in combination and in relation to the real world.

The taxonomy report gives the following example related to technology skills: Students are tasked to build a simple gaming app to nurture their problem-solving skills. By designing this as a group project, children nurture other skills such as collaboration, communication, socio-emotional awareness, and even global citizenship by making sure the app isn't harmful to anyone.

A second example is an environmental clean-up project in a public park. Besides a civic mindset and environmental stewardship, this teaches problem-solving as the children

first need to research and decide on an approach. The group work builds communication skills.

## **The role of business, governments, and education in equipping children with the right skills**

Business leaders, governments and educators need to work together to innovate and scale opportunities for children to nurture these abilities and skills as well as values and attitudes from an early age. The report gives valuable starting points:

Businesses can

- seek opportunities to collaborate with schools and the broader education community to give learners insights into how skills are used and how they are connected to workplace success
- engage educators in learning and development programmes

Governments can

- align curricular to the future of work by updating teacher training programmes
- update national curricula standards to reflect *Education 4.0* skills
- communicate importance of *Education 4.0* skills to teachers and parents
- invest in technology that supports skill development

Educators can

- align practice with future workplace expectations
- adapt teaching and learning practices, so they nurture *Education 4.0* skills
- adapt assessment mechanisms and give their students opportunities to observe skills in the workplace

Parents can

- foster skills at home through play

- identify opportunities to give back to community as this can support development of *Education 4.0* aptitudes

### Do you want to know more?

You can read [World Economic Forum's](#) full white paper on Defining Education 4.0: A Taxonomy for the Future of Learning [here](#).

For more information about [#LearningThroughPlay](#), our research and how we work with it, check out our website [here](#).

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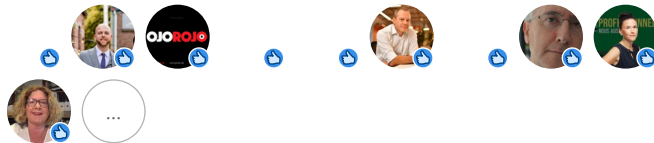
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Great to hear, Yvette 😊🙌

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