

Finland

International case study

Generic skills description

Transversal competencies: cognitive skills, meta-skills, and opportunities needed in studies, work, hobbies, and everyday life.

Generic skills in the academic and vocational curriculum

Skills are cultivated through collaborative and project-based approaches to teaching and learning, and through 'transversal competencies' (TC) taught within subject units. Transversal competencies are integrated into the academic and vocational curricula.

Skills teaching and learning approaches

Student-centred, experiential, collaborative learning pedagogies including project based learning.

Generic skills assessment

Transversal competencies are assessed within subjects, as part of subject unit, not separately.

Teacher autonomy

High level of trust and autonomy to make their own pedagogical choices in teaching and learning of skills.

This is a case study of generic skills in 14-19 education in **Finland**, developed through a desk review of selected, mostly official documents. It is intended to be read alongside another 9 international case studies and an overarching summary report of the research *Sheffield Institute of Education* undertook in collaboration with *Centre for Education Systems* with funding from *The Charitable Foundation for Educational Development*. The project investigated how ‘generic skills’ are characterised, understood, and implemented across 10 jurisdictions, with particular reference to the relevance for England.

Authors **Sarah Boodt, Lisa Clarkson, Charlyne Pullen, Mark Boylan, Hongjuan Zhu**

Summary

Finland's national core curriculum is set by government in collaboration with a wide range of stakeholders. Municipalities use this curriculum framework to develop local curricula tailored for the needs and interests of their communities. The common compulsory subjects in the national curriculum are identified in the Basic Education Act. The curriculum is designed to equip students with the knowledge, skills, and competencies to become balanced, enlightened humans and citizens who are able to adapt to whatever the future holds. As such, it encompasses collaborative skills, the application of data, creative and critical thinking, future global civic skills, community spirit, and the creation of a sustainable future. These skills are developed through pedagogies that promote collaborative and project-based learning, and through transversal competencies (TC) taught as part of all subjects at upper secondary level.

TCs are an important element of Finland's holistic, integrated curriculum which emphasises links between taught subjects and real life. These competencies are cultivated and assessed within subjects, as part of a subject unit. They refer to the cognitive skills, meta-skills, and opportunities that underpin studies, work, hobbies, and everyday life. In the Finnish system, a culture of lifelong learning seeks to engender a love of learning for self-development throughout the life course. Finland was the world leader in generic skills teaching and learning, as evaluated by the Worldwide Educating for the Future Index 2019.¹

Vocational education and training (VET) is highly respected. VET in Finland focuses on competencies and the individual learner, providing skills for life and work. Vocational qualifications follow a modular structure which gives students foundations in basic vocational skills and further options depending on their individual and career interests. Learners develop an increasingly specialised set of skills through study for further and specialist vocational qualifications and can progress to a university of applied science. Competence-based qualifications allow individuals to demonstrate prior learning in vocational education.

Teaching is a well-respected profession in Finland and teacher status is on a par with doctors and lawyers. Teachers are well-qualified and enjoy a high degree of autonomy with regards to curriculum development at local level and quality assurance processes.

¹ World Economic Forum, 2019 <https://www.weforum.org/agenda/2019/03/finland-switzerland-new-zealand-lead-at-teaching-skills/>

1. Contextual Factors

We begin this overview of the country of Finland with its social and economic context and educational context in section 1.1. Section 1.2 outlines the key systems and structures of the education system and section 1.3 covers the education workforce and professional status. Finally, section 1.4 describes how policy on skills is formed and enacted in Finland. These aspects are discussed with a particular focus on generic skills.

1.1 Social and economic context

Finland is experiencing rapid demographic change. It has one of the fastest ageing populations in the world, due to its increasing life expectancy (attributed to the high quality of life) and steadily declining birth rate.² The majority of Finnish people live in or around a large city, and depopulation of the countryside has intensified due to demographic change. In recent years, immigration has increased significantly, primarily driven by individuals moving to Finland with their families for work or education. Immigration peaked in 2022 with the war in Ukraine but has fallen slightly in 2023.³

Finland is among the most stable economies in the world. It has long benefited from open-market policies that support dynamic trade and investment. Finland's key economic sector is manufacturing, and the largest industries are electronics, machinery, vehicles and other engineered metal products, forest industry, and chemicals. Timber, minerals, and freshwater are its main natural resources. The Finnish economy is expected to have grown only 0.4% for 2023, but moderate growth is forecast from 2025 to follow the current shallow recession.⁴ As with many European countries, the war in Ukraine has had negative impacts on Finland's economy and increased the urgency of transitioning away from fossil fuels.⁵

Other major ongoing changes facing the Finnish economy, and therefore its labour market, are the industrialisation of the forestry and agriculture sectors, technological developments, and an increasingly global marketplace. Finland's policymakers see education as key to meeting these challenges and maintaining economic prosperity. This agenda echoes a successful economic recovery plan introduced in 1978 which focused on working towards a knowledge-based economy.

² Statista, 2023 <https://www.statista.com/topics/6879/demographics-of-finland>

³ Helsinki Times, 2023 <https://www.helsinkitimes.fi/finland/finland-news/domestic/23775-immigration-to-finland-continues-to-be-high-interest-in-studying-in-finland-is-growing.html>

⁴ Bank of Finland, 2023 <https://www.suomenpankki.fi/en/media-and-publications/releases/2023/shallow-recession-in-finnish-economy-to-be-followed-by-moderate-growth/>

⁵ OECD, 2023 <https://www.oecd.org/economy/finland-economic-snapshot/>

Unemployment in Finland remains relatively low at 6.9% but is projected to rise slightly to 7.1% in 2023 before falling again to 6.4% the following year.⁶ Labour shortages are most prominent in healthcare and long-term social care. Tackling these gaps requires the training of workers and/or relaxation of skill requirements in jobs, together with stronger incentives for workers, unions and firms. Finland has taken measures to improve allocation of university places and accelerate the transition to tertiary education. The National Forum for Skills Anticipation produces long-term forecasts of future vocational skills required in Finland

Educational overview

The main objective of the Finnish education system is to provide all citizens with equal opportunities to receive high-quality education, irrespective of their socio-economic background or the school they attend.⁷ A fundamental tenet of education in Finland is that a strong education system is underpinned by strong social care, social welfare and health systems that address issues such as poverty. To this end, the philosophy of inclusion is integral to Finnish education policy so that all students are supported individually to complete their basic education. Students with special needs are included in mainstream schooling. Teachers are well trained to teach mixed-ability groups, to differentiate, and to create individual learning paths. All students have a personal competence plan which sets out the ways to best achieve their objectives. There is an emphasis on early intervention and resources for remedial teaching.

Finnish education performs very well by OECD metrics on student attainment. In the 2018 PISA survey, Finland and Estonia were the best-ranking European countries, behind Asian countries which continue to dominate the top positions. Girls outperform boys in literacy, maths and science in Finland, with the difference in reading score being the largest in the OECD countries.⁸

1.2 Key educational systems and structures

Curricula, assessment and qualifications

The new Finnish national core curriculum for basic education was approved in 2014, with schools using this framework from 2016. The framework defines the objectives and core contents of each subject⁹ and the curricula are reviewed and revised approximately every 10 years. The national core curricula are underpinned by education legislation (e.g., the Basic Education Act, 1998) which sets out how the basic aims of the education system should be implemented. The fundamental premise is that every learner is unique and entitled to high-quality education.¹⁰ The national core curriculum is developed in collaboration with a wide range of stakeholders including academic experts, trade unions, representatives of municipalities, and teachers, parents and students.

⁶ CEIC Data, 2023 <https://www.ceicdata.com/en/indicator/finland/unemployment-rate>

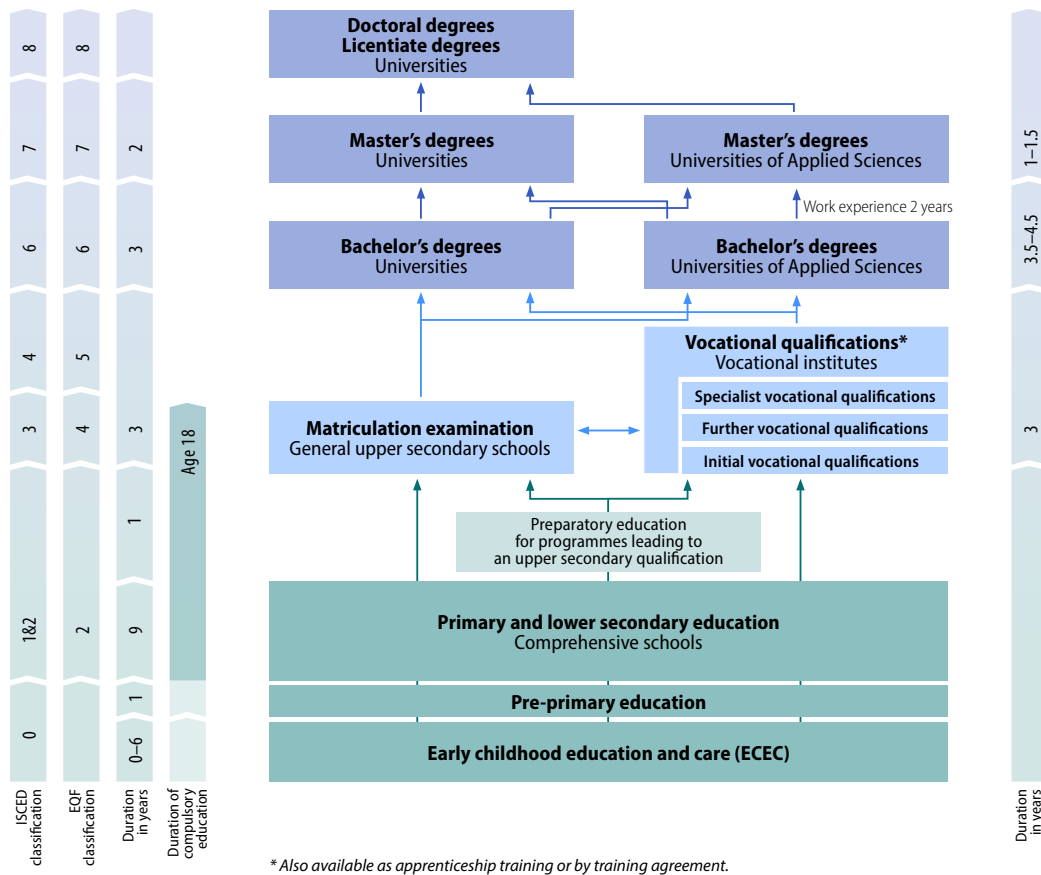
⁷ Finnish National Agency for Education, 2017 <https://www.oph.fi/en/education-system>

⁸ Ahonen, 2021

⁹ Harju & Niemi, 2017

¹⁰ Finnish National Board of Education, 2016 <https://www.oph.fi/sites/default/files/documents/new-national-core-curriculum-for-basic-education.pdf>

Figure 1: Education system in Finland ¹¹



There are no national tests for pupils in primary and lower secondary education in Finland. Instead, teachers are responsible for assessment based on the goals set in each student's personal competence plan. Teachers use either a 10-point numerical scale (where 5 is adequate, 10 is excellent, and 4 or below is failing) or a pass/fail mark, but there is no stipulated grading rubric for school-based assessments.

Schools administer a final assessment at the end of basic education (9th grade). The final assessment is required for mother tongue and literature, the second national language, foreign languages, mathematics, physics, chemistry, biology, geography, health education, religion or ethics, history, social studies, music, visual arts, crafts, physical education, and home economics. Students are graded on a 10-point scale and need a 5 to pass.

There is a preparatory education scheme (TUVA education) for the transition from lower secondary to upper secondary education, which seeks to equip students with the necessary knowledge, skills and abilities to apply for an upper secondary qualification.

¹¹ Ministry of Education and Culture, 2022 <https://okm.fi/documents/1410845/15514014/Education+system+in+Finland/7c5a920b-47a5-c3ce-cbca-818ff3a5f848/Education+system+in+Finland.pdf>

General upper secondary usually takes three years to complete and does not qualify students for any particular occupation. The route is flexibly organised on a modular basis that is not tied to year-group classes, so students have considerable freedom to determine their study schedules. At the end, students take the Finnish matriculation examination, which is a national school-leaving examination. With this qualification, students can apply for university.

Subjects taken at upper secondary school include Finnish language, the second national language, a foreign language, mathematics, or one subject in general studies such as humanities and natural sciences. These subjects are intended to incorporate skills in life management and responsible involvement, to help pupils to grow into balanced, enlightened, adult citizens. Phenomenon-based learning is flexible and aims to prepare children to adapt to whatever the future holds. It puts emphasis on community spirit, collaborative skills, the application of data, creative and critical thinking, future global civic skills, the whole city as a learning environment, and the creation of a sustainable future.

Vocational qualifications include initial vocational qualifications, which equip individuals with the basic skills for a specific vocational field, and then further and specialist vocational qualifications. A secondary vocational qualification allows progression to a university of applied science. The qualifications are competence-based, which enables them to capture skills gained from prior informal experience as well as formal education.

Life-long learning is encouraged in Finland. The education system has provision for individuals to continue to study and develop throughout their lives.¹² Further and specialist vocational courses and qualifications can be accessed by people at different stages of their career, and adult education is available at all levels subject to individuals meeting the admission requirements.

Vocational Education and Training (VET)

Finnish VET is highly regarded: 90% of Finns think it offers high-quality learning.¹³ VET in Finland aims to provide skills for life and work, focusing on competencies of the individual learner. In 2020, 72% of all upper secondary students in Finland chose VET programmes, which is a higher proportion than the OECD average of 42%.¹⁴ The most common field of study is engineering, manufacturing, and construction. All upper secondary vocational programmes offer direct access to tertiary vocational education. However, the upper secondary completion rate is lower for vocational programmes (68%) than general routes (81%).¹⁵

Students who choose VET work towards an upper secondary certificate and vocational qualification in one of 10 broad industry areas. As with the general upper secondary route, the modular structure allows students flexibility, and they can take elective studies both from higher education institutions and from VET settings.

¹² Harju & Niemi, 2017

¹³ CEDEFOP 2019 <https://www.cedefop.europa.eu/en/publications/4176>

¹⁴ OECD, 2020 <https://www.oecd-ilibrary.org/docserver/a236a58f-en.pdf>

¹⁵ OECD, 2020

School/college organisation

Figure 1 above shows an overview of the education system. Compulsory education in Finland begins at age 7 and has two main stages: comprehensive school (primary and lower secondary) and post-comprehensive school (upper secondary). From grades 7 to 9 there is a focus on transitions in studies and careers. In upper secondary there are two types of school, corresponding to the general education route and vocational education route. Some general schools have specialisms, for example music, physical education or natural sciences. Compulsory education ends at age 18 or on completion of a general secondary or vocational qualification, with onward pathways to further and higher education.

Upper secondary VET institutions also organise on-the-job learning or apprenticeship training. Finland offers combined school-based and work-based programmes which are taken up by 14% of upper secondary vocational students. On these combined programmes, between 25% and 90% of the curriculum is taught as work-based learning and the remainder is provided in school.

1.3 Education workforce and professional status

Professional status and autonomy

Finnish teachers are highly qualified and highly valued; they enjoy status equivalent to doctors and lawyers. Class teachers have majors in education and may specialise in teaching one or more subjects as minors. Subject teachers major in specific subjects and do their pedagogical studies over a five-year programme or as a separate module after graduation. Teachers in Finland have a high level of autonomy to make their own pedagogical choices in the classroom¹⁶ in collaboration with the whole school community. The education system is based on a high level of trust. There is no standardised testing of students (teachers assess students against their own individual progress) and no external assessment of teaching practice (head teachers are all ex-teachers and provide pedagogical quality assurance).

Trainee teachers learn about the theory of education and pedagogical content knowledge as well as subject-specific knowledge. Alongside this, they complete a master's thesis to demonstrate their ability to conduct scientific enquiry and employ analytical and reasoning skills. These skills are seen to be crucial in a context where the national curriculum and local curricula allow teachers significant freedom to determine how and what to teach.

Vocational teachers have different qualification requirements. In addition to a master's or polytechnic degree and vocational teacher training, they must have at least three years' working experience in their field. (See **Table 1** on the next page for a summary of teacher qualifications in Finland.)

Expert teachers specialise in one of the following five areas, which straddle generic skills expertise as well as subject-specific knowledge and skills:

- Learning environments
- Phenomenon-based learning
- Language, interaction and thinking skills
- Portfolio learning, assessment and comprehensive learning
- STEAM (Science, Technology, Engineering, Arts, Mathematics)

Table 1: Teacher qualifications in Finland

Non-vocational teachers	Teachers of vocational studies	Principals
Bachelor's degree in educational science 180 ECTS (3 years)	Master's or Polytechnic degree	Teacher education
Class teachers 300 ECTS (5 years)	Minimum 3 years' work experience in their subject	Certificate in educational administration
Subject teachers 300 ECTS (5–6 years)	Vocational teacher training	

1.4 Policy formation and implementation

The Ministry of Education and Culture in Finland is responsible for education policy and legislation and making decisions about state funding of education. Working under the Ministry is the Finnish National Board of Education, the agency responsible for the national core curriculum, qualifications and teacher development. Education in Finland is a decentralised system in which municipalities determine their local education priorities and develop local curricula based on the national core curriculum. They are also responsible for allocating education subsidies, recruiting staff, and quality-assuring education provision.

The OAJ (the education trade union), which represents over 95% of Finnish teachers and head teachers, contributes to education policy through participation in working groups, lobbying and advocating on matters of working conditions.¹⁷ Education providers have primary responsibility for quality and there is no Ofsted equivalent.

¹⁷ Google for Education, 2016 <https://edu.google.com/pdfs/google-for-education-teacher-status-in-finland-final-report-november-2016.pdf>

2. Generic skills

In 2019, Finland was the world leader in generic skills education, as evaluated by the Worldwide Educating for the Future Index. The national curriculum emphasises the active involvement of learners and seeks to engender a love of learning. Learners are encouraged to reflect on the changes in the surrounding world and what these changes mean for children's and young people's learning and life skills, including sustainability.¹⁸ Schools in Finland function as communities in an environment of mutual respect and shared learning, with an emphasis on dialogic interaction. They aim to help learners to understand the relationship and interdependencies between subjects in order to facilitate knowledge and skills transfer across different subjects.

Transversal competencies – generic skills – are integral to the upper secondary core curriculum in Finland. They refer to the cognitive skills, meta-skills, and opportunities that underpin the life-long learning paths in studies, work, hobbies, and in everyday life.

The six areas of transversal competence¹⁹ are set out in **Table 2** opposite.

These transversal competencies are enshrined in the Act of General Upper Secondary Education of 2018. Within the curriculum, the competencies are incorporated into subjects and assessed as part of each study unit, not treated as an add-on. The aim is to fully embed transversal competencies within the conscious everyday practices of teaching and learning.

¹⁸ Finnish National Board of Education, 2016

¹⁹ Finnish National Agency for Education, 2024 <https://www.oph.fi/en/education-and-qualifications/transversal-competences-finnish-general-upper-secondary-education>

Table 2: The six areas of transversal competence

1. Well-being competence

- ▶ Caring for oneself and others
- ▶ Recognition and utilisation of own strengths; identity construction
- ▶ Grit and resilience in a world of change and surprises

2. Interaction competence

- ▶ Emotional and empathy skills
- ▶ Social and collaboration skills; collaborative learning skills
- ▶ Language awareness and constructive communication skills (mediation)

3. Multidisciplinary and creative competence

- ▶ Curiosity and motivation to learn; to find meanings and to combine things in new ways
- ▶ Self-regulated learning, factual criticism, development of learning-to-learn skills
- ▶ Multiliteracy in the digital era

4. Societal competence

- ▶ Democracy skills, influencing for a safe, just and sustainable future
- ▶ Using competences for one's own and the benefit of society
- ▶ Ability to transform as regards life in general, and the world of work.
- ▶ An entrepreneurial disposition

5. Ethical and environmental competence

- ▶ Value-based and ethical action for the common good
- ▶ Appreciation of the diversity of nature; research-based climate action
- ▶ Appreciation of circular economy and sustainable consumerism

6. Global and cultural competence

- ▶ International competences; global citizen's disposition
 - ▶ Knowledge of Finnish, European and global heritage, appreciation of cultural diversity
 - ▶ Ethical agency in the globalised spheres of media and technology
-

3. Subject and vocational skills

Finland has a holistic, integrated national curriculum that emphasises links between taught subjects and the real world. The disciplines and academic subjects covered in the general secondary curriculum were outlined in section 1. In these studies, students are supported to understand the links between subjects and also to develop transversal competencies (generic skills). The pedagogies used to achieve this include collaborative and project-based learning (see section 4).

Finnish VET is competence-based and covers eight fields of education, involving more than 150 vocational qualifications over three levels, as outlined in section 1. The modular structure of vocational programmes provides students with a foundation of basic vocational skills with options for individualisation and specialisation depending on their career interests. Learners develop increasingly specialised sets of occupational skills.

The key VET competencies include entrepreneurial competence, digital competence, societal competence and citizenship, competence of sustainable development, cultural competence, mathematical, natural scientific and technical competence, development of competences, communication, and interaction competence. There are also compulsory common units such as mathematics, Finnish or Swedish language, information technology or foreign languages.

In summary, in Finnish secondary education, students are supported to develop a diverse set of generic, transferable competencies in conjunction with the learning of subject/vocation-specific knowledge and skills.

4. Teaching and learning approaches

In Finland, teachers apply pedagogical approaches that focus on exploring real-life phenomena and themes, across different subjects. Teaching approaches emphasise the process of learning. Consequently, students' active participation in their learning is considered essential.²⁰

Teachers are perceived as facilitators of learning: the focus is on student-centred, experiential, collaborative learning that cultivates critical thinking skills. This approach includes the use of technology to support more personalised and independent learning, and students are supported to set goals and evaluate their own competencies and learning.

These approaches promote curriculum integration and a more holistic approach to education. They may involve teaching the same theme across two or three subjects, or having theme days, field trips, or different kinds of joint events. At least once a year, every school and every grade level must take a multidisciplinary learning module that explores a selected theme from the viewpoint of different subjects. Although individual schools determine the aims and content of the project and how the activities will be organised, students are instrumental in planning and organising the projects.²¹

²⁰ Finnish National Board of Education, 2016

²¹ Harju & Niemi, 2017

References

- Ahonen, A.K. (2021). Finland: Success Through Equity—The Trajectories in PISA Performance. In: Crato, N. (eds) *Improving a Country's Education*. Springer, Cham.
- Bank of Finland. (2023). *Shallow recession in Finnish economy to be followed by moderate growth*. Retrieved June 2023, from: <https://www.suomenpankki.fi/en/media-and-publications/releases/2023/shallow-recession-in-finnish-economy-to-be-followed-by-moderate-growth/>
- CEDEFOP (2019) *Vocational Education and Training in Finland*. Retrieved May 2024, from: <https://www.cedefop.europa.eu/en/publications/4176>
- CEIC Data. (2023). *Finland unemployment rate*. Retrieved June 2023, from: <https://www.ceicdata.com/en/indicator/finland/unemployment-rate>
- Finnish National Board of Education (2016) *Education in Finland*. Retrieved June 2023, from: <https://www.oph.fi/sites/default/files/documents/new-national-core-curriculum-for-basic-education.pdf>
- Finnish National Agency for Education. (2017). *Finnish Education System*. Retrieved June 2023, from: <https://www.oph.fi/en/education-system>
- Finnish National Agency for Education. (2024). *Transversal competences in Finnish general upper secondary education*. Retrieved May 2024, from: <https://www.oph.fi/en/education-and-qualifications/transversal-competences-finnish-general-upper-secondary-education>
- Google for Education. (2016). *Teacher Status in Finland*. Retrieved May 2024, from: <https://edu.google.com/pdfs/google-for-education-teacher-status-in-finland-final-report-november-2016.pdf>
- Harju, V. and Niemi, H. (2017). Manuscript: *Transversal competencies in Finnish basic education*. Published in *Educational Measurement and Evaluation*. Retrieved May 2024, from: <https://helda.helsinki.fi/server/api/core/bitstreams/8690a9c6-a265-4715-b1ed-7f67f0767f80/content>
- Helsinki Times (2023) *Immigration to Finland continues to be high - interest in studying in Finland is growing*. Retrieved May 2024, from: <https://www.helsinkitimes.fi/finland/finland-news/domestic/23775-immigration-to-finland-continues-to-be-high-interest-in-studying-in-finland-is-growing.html>

Ministry of Education and Culture (2022) *Finnish Education System*. Retrieved May 2024, from: <https://okm.fi/documents/1410845/15514014/Education+system+in+Finland/7c5a920b-47a5-c3ce-cbca-818ff3a5f848/Education+system+in+Finland.pdf>

OECD (2020) *Education at a glance*. Retrieved July 2023, https://www.oecd-ilibrary.org/education/education-at-a-glance-2020_a236a58f-en

OECD (2023) *Finland Economic Snapshot*. Retrieved April 2024, from: <https://www.oecd.org/economy/finland-economic-snapshot/>

Statista (2023) *Demographics of Finland - statistics and facts*. Retrieved June 2023, from: <https://www.statista.com/topics/6879/demographics-of-finland>

Vahtivuori-Hänninen, S., Halinen, I., Niemi, H., Lavonen, J. & Lipponen, L. (2014). A New Finnish national core curriculum for basic education (2014) and technology as an integrated tool for learning. In H. Niemi, J. Multisilta, L. Lipponen & M. Vivitsou (Eds.) *Finnish Innovations and Technologies in Schools. A Guide towards New Ecosystems of Learning* (pp. 21–32). Rotterdam: Sense Publishers

World Economic Forum. (2019) *Finland, Switzerland and New Zealand lead the way at teaching skills for the future*. Retrieved May 2024, from: <https://www.weforum.org/agenda/2019/03/finland-switzerland-new-zealand-lead-at-teach>

