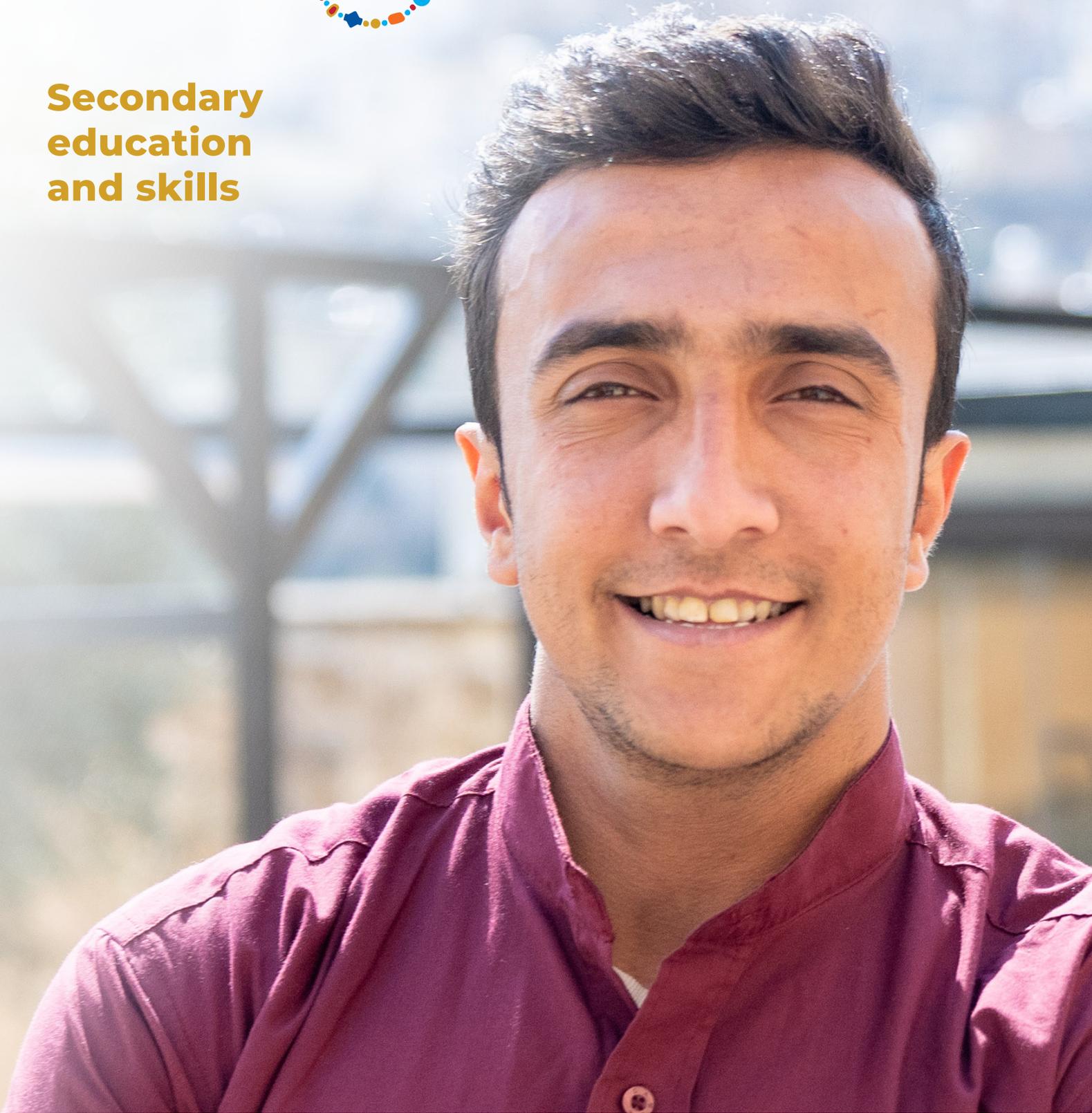




Secondary education and skills



Generation Unlimited

Generation Unlimited works with a two-pronged approach- coordinating country level action through investment agendas and implementing cross-cutting innovations at scale. At the national level, Generation Unlimited will establish an in-country, multisector partnership group led by the government to undertake a comprehensive landscape analysis of the current ecosystem for education, employment and civic engagement of young people. The analysis will be the basis for a country investment agenda that will articulate a high-level roadmap and a portfolio of scalable initiatives for investments, and Generation Unlimited support sourcing of investment opportunities and mobilization of financial and political capital to execute on these priorities for young people aged 10-24. Where innovations are required, Generation Unlimited will also support co-creation of solutions, particularly with young people.

At the global level, Generation Unlimited will identify and scale innovations of greatest potential to address common challenges of young people, unlocking bottlenecks and brokering partnerships to deliver on the innovations.

Decent Jobs for Youth, the Global Initiative for Action

Decent Jobs for Youth is the global initiative to scale up action and impact on youth employment under the 2030 Agenda for Sustainable Development. It is a hub for catalyzing partnership, collaboration and coordinated action at country and regional level, grounded in evidence-based solutions.

Launched in 2016, with the endorsement of the United Nations Chief Executives Board for Coordination, Decent Jobs for Youth brings together governments, social partners, youth and civil society, the private sector, and many more partners advancing the vision: a world in which young women and men everywhere have greater access to decent jobs!

Through the commitment platform and the Decent Jobs for Youth Knowledge Facility, partners identify what works, share innovations, and mobilize concrete actions – from green and digital jobs to quality apprenticeships, youth entrepreneurship, and the transition to the formal economy. With new spin-off initiatives in Namibia, Nigeria, Burkina Faso, and Kenya, and a regional and global convening agenda, Decent Jobs for Youth works with like-minded partnerships to translate fragmentation into synergy.

INTRODUCTION

The current generation of young people – numbering 1.8 billion – is one-quarter of the world’s population¹ and a dominant force now and in the decades to come. However, investments in quality wage and self-employment fall short of young people’s aspirations, leaving a growing pool of young jobseekers with an insufficient number of decent jobs. Many education systems are struggling to prepare young people with skills which meet employer’s expectations. The COVID-19 pandemic and related global recession have further exacerbated the socio-economic challenges facing youth, which put at risk many of the gains made in recent years to advance young people’s opportunities.

Generation Unlimited and the Global Initiative on Decent Jobs for Youth are two multi-stakeholder alliances working together to mobilize action and foster skills, employment and the meaningful participation of young people across the globe. By bringing young people together with governments, social partners, the private sector, and a range of international and local organizations, they connect secondary-age education and training to a complex and fast-changing world of work, while easing the transition of young people into decent jobs. Efforts are also being made to foster youth-led entrepreneurship and empower a generation of young people to fully engage as part of their societies.

Acronyms and initialisms

AFL	Assessment for Learning	NSDC	National Skill Development Corporation
ALP	Alternative Learning Pathway	ODA	Official Development Assistance
BRAC	Bangladesh Rural Advancement Committee	OECD	Organisation for Economic Co-operation and Development
CSR	Corporate Social Responsibility	PPP	Public-private Partnership
ESP	Education Sector Plans	PTA	Parent-teacher Associations
GDP	Gross Domestic Product	SDG	Sustainable Development Goal
GESI	Gender Equity and Social Inclusion	SEQUIP	Secondary Education Quality Improvement Program
ILO	International Labour Organization	SMC	School management committee
ICT	Information and Communications Technology	TVET	Technical Vocational Education and Training
MDB	Multilateral Development Bank	UNESCO	United Nations Educational, Scientific and Cultural Organization
NEET	Not in Employment, Education or Training	UNICEF	United Nations Children’s Fund
NGO	Non-Governmental Organization		



GLOSSARY

Alternative learning pathways

Alternative routes for engaging in learning, usually involving remedial learning, literacy, numeracy and bridging programmes.

Bridging programmes

Short-term programmes that address gaps in learning, usually focussing on a particular target group or cohort. They may, for example, provide targeted training to assist youth re-entering formal education, workers looking to enter formal schooling or TVET, or migrants seeking to enter formal education programmes.

Competence

A satisfactory state of knowledge, skills and attitudes, and the ability to apply them in a variety of situations.¹ Competence requires an interplay between technical, occupational, and transferable or core skills and attitudes, so as to be able to adapt to and operate in a variety of situations.

Digital skills²

Basic digital skills are those required to begin using digital technologies. These skills allow individuals to interact with others and access government and commercial services. Examples of basic digital skills include using word processing software, accessing websites with user accounts, and protecting oneself from online harm and fraud.

Intermediate digital skills are those required to use digital technologies in meaningful and beneficial ways. These skills allow individuals to make active contributions to digital society and perform work-related functions. Examples of intermediate digital skills include creating and editing online content and visualizing and analysing data.

Advanced digital skills are those required to use digital technologies in empowering and transformative ways. These skills allow individuals to work in information and communication technology occupations and professions. Examples of advanced digital skills include developing industry-level software applications, managing large-scale databases, and protecting computer networks from cyberthreats.

Foundational skills³

These provide the base on which all further academic learning is built. They include two main fields: literacy and numeracy. Foundational skills are essential for further learning, productive employment and civic engagement. Low-level digital skills are increasingly being considered as foundational, and include the ability to use technologies, as well as developing the social and emotional skills needed to safely navigate the digital space.

Gender Equity and Social Inclusion (GESI)

The mainstreaming of socially excluded people in all aspects of programme and policy development, design, implementation and evaluation. Social and cultural factors like age, ability, geographic location, ethnic and religious identities, sexual identity, and economic status all form part of a GESI approach.

Job-specific skills

These are not covered in this guide, but are explored in Guide 2 on the transition from school to work (though see also technical and vocational skills).

Multiple learning pathways

Multiple learning pathways to secondary education can be part of formal or non-formal education depending on the country, and can include Alternative Learning Pathways, non-formal learning in school or community settings, and TVET in schools. There is no set model, and pathways and learning objectives can vary widely depending on the needs of the learner and the context. They are often conducted by several ministries, such as the ministries of education, labour, health, social affairs, women's affairs, agriculture, etc., and are implemented by a large array of providers, including government and NGOs.⁴

Other educational providers, community groups and NGOs

In some countries formal secondary education is a mix of government and private educational institutions along with NGOs which focus on particular target groups, including minority groups. In some countries TVET institutions can also deliver formal senior secondary schooling.

Pre-vocational education

Generally a pathway into TVET, and can be seen as an Alternative Learning Pathway into TVET. The learning program often includes literacy and numeracy and transferable skills within an occupational or an economic sector context (garment manufacturing, for example).

Remedial programmes

One-on-one support or group programmes covering literacy and numeracy skills for those needing additional support, or those who left school early and are seeking to re-enter formal education.

School-based apprenticeships/traineeships

On-the-job training combined with school-based general education subjects and technical training, pursuant to a recognized qualification. In Australia, for example, through completing their apprenticeship students gain a qualification which is recognized for entry into universities.

School-industry programme

A programme for higher-secondary-school students which combines school learning with workplace learning. Many programs lead to advanced standing in an apprenticeship or traineeship, or credit towards a technical vocational education and training (TVET) course.⁵ These programmes can include contextualization of education for the world of work through incorporating technical content – such as information technology – into the curriculum.

Secondary education

Formal secondary education, both public and private, comprises two levels, lower and upper secondary, which follow on from primary education and are characterized by greater subject specialization and diversity of curriculum offer. This understanding reflects the International Standard Classification of Education (ISCED)⁶ terminology of 'lower' and 'upper' secondary education.

Secondary education has several unique features: it is typically where students begin to be tracked or streamed into different programmes; students face high-stakes examinations that shape their future education and employment opportunities; and multiple ministries or agencies may have authority to operate secondary schools, such as ministries of education, labour (for technical and vocational education and training (TVET)), agriculture, justice (for young people in conflict with the law), and health (for youth in special schools for young people with disabilities).

Secondary education requires a diversity of learning options to maintain learner interest and engagement, as disengagement and drop-out is much higher in adolescence due to various push and pull factors; and it can be delivered through non-formal education (NFE) – education that is institutionalized, intentional and planned by an education provider, but delivered by a diverse set of providers usually outside the formal education system.

Technical and vocational skills

Many jobs require specific technical know-how, from growing vegetables to using a sewing machine, laying bricks or using a computer.⁷ Technical skills form part of what makes a person competent and are a central or defining part of an occupation, though additional skills such as transferable or core skills are needed to make a person fully competent and able to participate in their occupation.

Transferable skills

Transferable skills (also known as life skills, soft skills, or socio-emotional skills) allow young people to become agile, adaptive learners and citizens equipped to navigate personal, academic, social and economic challenges. They include problem-solving, negotiation, self-management, empathy and communication. They support crisis-affected young people to cope with trauma and build resilience in the face of adversity. Transferable skills work alongside knowledge and values to connect, reinforce and develop other skills and build further knowledge.

TVET in Schools

technical vocational education and training (VET) is undertaken by school students as part of their formal higher-secondary schooling leading to a recognized TVET certificate for lower-level occupational qualifications, where the training is recognized and delivered by schools. TVET in Schools combines the acquisition of specific occupational skills and transferable skills to perform that occupation within a workplace.

TVET in Schools provides young people with an opportunity to combine vocational studies with a general education curriculum. In many countries, youth participating in TVET in Schools continue to work towards their senior secondary certificate, while the TVET component of their studies gives them either credit towards a recognized TVET qualification, or a full such qualification. To implement TVET in Schools requires national- and local-level interventions. At the national level, it is necessary for authorities to consult with the relevant industry groups to determine if vocational qualifications delivered at the secondary-school level will be accepted, and whether work-based learning or workplace simulation activities will be necessary. Some sectors, such as information technology, may not be willing to provide work-based learning due to privacy and business criticality, but are happy for good-quality workplace simulations to be applied instead. National secondary education authorities will also need to consult with national TVET sector

authorities to ensure that quality standards, and TVET and sector-specific requirements, can be met for recognition and certification requirements.

At a local level, schools that implement TVET in Schools ought to consult local businesses to gain access to workplaces for visits, or workplace learning and for guest speakers. Local businesses can also provide industry inductions for teachers who will be teaching in the TVET in Schools stream. Schools can also form partnerships with local TVET providers to co-deliver the programme, meaning secondary school students can gain access to workshops and teachers with industry experience.

Vocational education

'education programmes that are designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade, or class of occupations or trades. Such programmes may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour-market-relevant, vocational qualifications acknowledged as occupationally oriented by the relevant national authorities and/or the labour market'.⁸ Vocational education in secondary schools may or may not lead to a recognized TVET qualification, meaning a student may or may not gain recognition to pursue further studies in the TVET sector.

SECTION 1 THE STRATEGIC CASE

The future of young people everywhere is being shaped by new technologies, fast-changing labour markets, migration, conflict and the environmental crisis. The COVID-19 pandemic and the resulting economic downturn have made the challenges facing young people even more pressing, as shrinking labour markets leave low-skilled young people with fewer choices, and render them more vulnerable to exploitation.

All young people need access to quality education and learning that develops the skills, knowledge, attitudes and values that will enable them to navigate a complex world, and succeed in school, work and life. In low-income countries in particular, secondary education has the potential to be a key platform for young people to enter the world of work, start a business, and have a positive impact in their communities; but only if they have the skills they need to break cycles of intergenerational poverty. The impact of the 4th industrial revolution, involving automation and the widespread use of Artificial Intelligence, is expected to make it difficult for low-skilled young people to find job opportunities. The future of work during the 4th industrial revolution mandates that for inclusive growth to be realized by all, foundational, transferable, digital, innovation, entrepreneurial and job-specific skills are required. Secondary education and skills development can contribute to broad-based economic and social growth by equipping young people with the tools for lifelong learning, so as to fully participate in society and the economy.

The aim of this guide is to support the Generation Unlimited strategic priorities, and to inform policy makers and social partners, so as to guide action on investment, policy change and delivery, increasing the likelihood of successful outcomes and decent jobs for young people.

a. The challenges

For too many adolescent girls and boys, there are barriers which restrict access to quality education and learning. Nearly 200 million adolescents aged 12–17 remain out of school, many of whom never started or completed primary education.⁹ Access to learning opportunities remains a challenge for refugees and youth on the move¹⁰ and in low-income countries, while girls and those with disabilities are more likely than others to drop out. At current rates of progress, of the 1.4 billion school-age young people in low- and middle-income countries, 825 million will not develop basic secondary-level skills by 2030.¹²

To succeed within the current and future socio-economic environment, all young people must have access to quality education and learning that develops the skills, knowledge, attitudes and values they need to learn and relearn, to find and retain productive work, to make informed decisions, and to positively engage in their communities.¹³ However, many young people remain out of school or do not have access to quality learning opportunities. The World Bank's 2018 World Development Report observes that the learning crisis has multiple causes, including poor service delivery in schools and communities, low bureaucratic capacity, and policies that are not aligned toward learning for all.¹⁴ Furthermore, education and learning systems worldwide are constrained in delivering positive outcomes for young people, and remain overly focused on the acquisition of knowledge that will not prepare them to meet challenges and seize opportunities both now and in the future.

The COVID-19 pandemic impacted on the gains that have been made in access and learning for all young people. The World Bank estimates that without effective and targeted action, the disruption to education during COVID-19 could result in an average reduction of \$872 in yearly earnings for young people aged 15–24 – amounting to an unprecedented \$10 trillion loss in earnings overall. There is now a once-in-a-generation opportunity to re-imagine education, especially for the most marginalized young people. Only half of all young people currently participate in formal or non-formal secondary education, and at the current rate an estimated 825 million youth are expected to leave school without skills at the secondary-school level by 2030. There is a need for a radical re-think of what works, seeking a radical improvement in traditional curricula, the number of trained professional teachers, student-teacher ratios, and the teaching methods and strict school timetables that have become less relevant to the current needs of young people.

b. Why does it matter?

Learning inequalities start early in the primary school cycle, or even before children start school. Thus, achieving a target – central to the Sustainable Development Goals (SDGs) – of ensuring all youth, regardless of circumstance, are learning the basics by 2030, will require a step-change in progress that will not be achieved by 'business as usual'.¹⁵ Recognizing that no target will be met unless it is met for all, a particular focus is needed on those who face disadvantages due to poverty, gender, where they live, and whether they have a disability.^{16,17}

There is an urgent need to expand, rethink and transform education and learning systems, so as to provide all young people, especially those who are marginalized and in conflict and emergency settings, with quality learning opportunities that include the skills they need to succeed in school, work and life. These skills take different forms, and may be categorized variously as foundational skills, transferable skills, or digital, entrepreneurial and job-specific skills. Transferable skills, also known as core skills, life skills, 21st-century skills, soft skills or socio-emotional skills,¹⁸ allow young people to become agile and adaptive learners, and develop into citizens equipped to navigate personal, academic, social and economic challenges. Transferable skills also support crisis-affected youth to cope with trauma and build resilience in the face of adversity.

The International Labour Organization's global report on the future of work¹⁹ describes the most likely scenario for future work as one in which current inequalities are exacerbated, and the core tasks of many jobs are automated; thus certain jobs, such as those requiring repetitive actions, will be lost both in blue- and white-collar jobs. There will be an increase in jobs with complex tasks relying on high-level cognitive skills, soft skills, social and communication skills, creativity and teamwork. The changes in work are largely being driven by technological change, notably digitalization and automation. Machines are already performing routine cognitive and non-cognitive tasks, and the share of jobs involving intensive non-routine tasks that require higher-order cognitive skills and soft skills will increase. Workers now and in the future will need to be lifelong learners, and secondary education, Technical Vocational Education



and Training (TVET) and higher education should allow multiple entries and exits to facilitate lifelong access.²⁰

Moreover, foundational, transferable, digital, entrepreneurial and job-specific skills are essential in today's rapidly changing labour market, since:

- Across the globe, about 500 million young people are unemployed, underemployed or working in insecure jobs, often in the informal sector.²¹
- 21 per cent of young people (255 million) in the developing world – three quarters of whom are women – are not in employment, education or training.²²
- Over 33 per cent of students between the ages of 13 and 15 experience bullying from their peers.²³
- Because of gender and social norms and discriminatory practices, the labour force participation of young women²⁴ and of young people with disabilities is also constrained.²⁵

• Low-skilled workers are growing in number, while job-market demands for workers with transferable skills, ICT skills and mastery of innovative technologies remain unmet.

• 39 per cent of employers in nine diverse countries (including high-income countries) claim that a leading reason for entry-level vacancies in their economies is due in part to a skills shortage.²⁶

This crisis is also an opportunity to reimagine secondary education so as to provide certified flexible learning pathways that can reach all young people, whether in or out of school. A quality ecosystem is needed in which young people have access to a range of options to enter and leave secondary education at different points, and diversified instruments are available to assess and certify skills regardless of the pathway. Such a system can only be achieved by strengthening education systems in collaboration with governments, the private sector, non-governmental organizations and the United Nations, as well as young people themselves.

Transferable skills

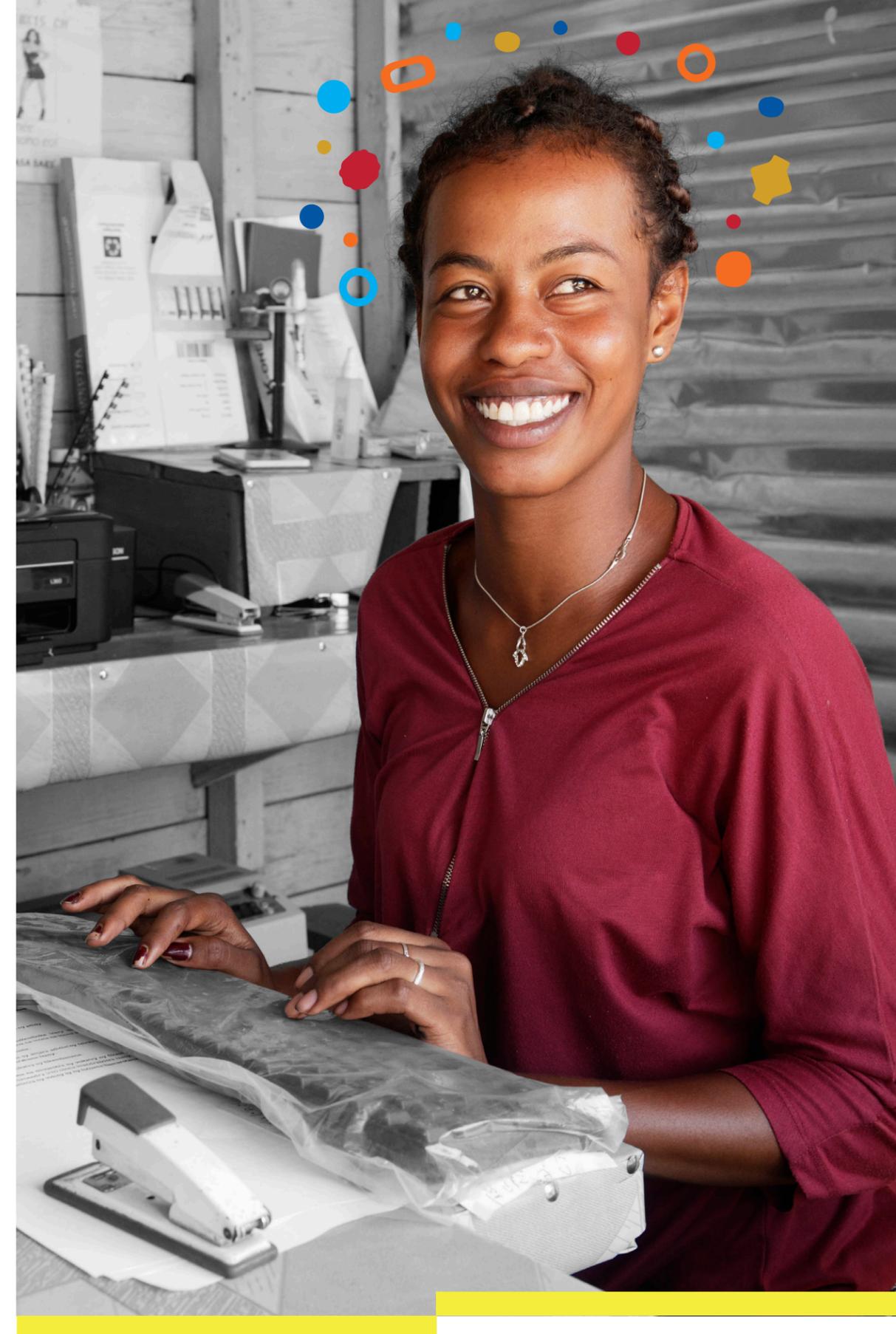
Terms such as ‘transferable skills’, as well as ‘core skills’ or ‘vocational skills’, denote broad concepts that have been interpreted in many different ways. Today it is clear that these skills are essential to lifelong learning and for the future of work. Transferable skills include problem solving, negotiation, managing emotions, empathy and communication, among others, and they work alongside knowledge and values to connect, reinforce and develop other skills and build further knowledge. They can be thought of as the central ‘magic glue’ which connects, reinforces and helps develop other skills (the foundational

skills of literacy and numeracy, digital skills and job-specific skills [also known as technical and vocational skills]).²⁷ The ILO Core Skills Framework²⁸ is one of a number of frameworks that draw on such skills and seek to contextualize them for the world of work. Several countries also have national soft skills frameworks, called for example ‘employability skills’ or ‘21st-century skills’. The development of transferable skills helps to bring about personal, social and economic benefits that are mutually reinforcing, and which support adolescents in pursuing success in school, work and life, as highlighted in Table 1 below. Source: Extrapolated from UNICEF’s Global Framework on Skills²⁹

Despite significant global efforts both within and outside of schools, transferable skills and literacy and numeracy skills are not being developed progressively or at scale for all young people. Most governments have ambitious whole-sector policies and plans in place to develop these skills, often guided by a national vision for economic and social development, but implementation remains a challenge. Out of 152 surveyed countries, 117 include transferable skills within national policy documents, and 71 include transferable skills within the curriculum, but only 18 define the learning standards to ensure the development of these skills across different age/grade levels.³⁰

Table 1: The key role of transferable skills

Transferable Skills	Key Roles
<p>which support <i>lifelong learning</i> contribute to young people being able to...</p>	<p>Master the instruments and processes needed to develop knowledge, acquire information and fundamental basic skills; and apply their information, knowledge and skills;</p> <p>Help society, through improved learning outcomes;</p> <p>Succeed as lifelong learners through ensuring equity in the quality of learning and learning outcomes;</p> <p>Independently weigh the content of the information they receive and identify solutions to problems;</p> <p>Develop as critical, curious and innovative thinkers who develop positive attitudes and are ready to engage in their work and communities.</p> <p>Improve learning and academic outcomes;</p>
<p>which support <i>a changing workforce</i> enable young people to...</p>	<p>Navigate and meet the evolving demands of the labour market and entrepreneurial economy;</p> <p>Be independent, creative, learners and critical thinkers;</p> <p>Remain agile, flexible and adaptive;</p> <p>Master complex problems and connect with others in highly collaborative settings;</p> <p>Be better prepared to design their own pathway through the world of work, and adapt it to changing economic circumstances;</p> <p>Be able to understand hurdles and risks both on a personal level and in relation to others.</p>
<p>which support <i>personal empowerment and community engagement</i> empower young people to...</p>	<p>Be more resilient – especially those who are marginalized – by supporting self-protection, violence prevention and gender empowerment;</p> <p>Learn to assert their choices and communicate these choices to family and community members;</p> <p>Better understand and exercise their rights and obligations in civic life;</p> <p>Cooperate with others and pro-actively advance their community interests;</p> <p>Develop into active citizens who are able to engage with local, regional and global issues that affect their lives;</p> <p>Counter social and gender norms that reinforce inequalities and harmful practices, especially those which affect young people;</p> <p>Make constructive and positive life choices and avoid risks linked to unhealthy behaviours that threaten their health and well-being;</p> <p>Reduce violence in schools and communities, especially violence against girls, young people with disabilities, and other marginalized young people;</p> <p>Cope with and manage the risks and challenges of violence and the conditions that lead up to it in a positive and productive manner.</p>
<p>to cope with <i>trauma and build resilience</i> help young people to...</p>	<p>Be able to make meaning out of the adversity they experience and to restore purpose and hope;</p> <p>Experience a reduction in aggressive and conflict-inducing behaviour later in life;</p> <p>Engage in any post-crisis reconciliation, social cohesion and longstanding peace processes;</p> <p>Cope with trauma and build resilience, which supports them to heal and be ready to learn.</p>



SECTION 2 HOW DO YOU SUCCESSFULLY DEVELOP SKILLS THROUGH SECONDARY EDUCATION?

a. Governance

In the challenge to reimagine secondary education to provide skills to address 21st-century learning needs and create certified flexible learning pathways, leadership is key to responsive educational solutions. The school leadership defines the vision of the school in cooperation with teachers and the local community, and it guides improvements in educational quality. Good governance requires strengthening principals by defining their role and reducing administrative tasks, so as to give them more time to concentrate on providing pedagogical support to teachers and ensuring that professional development needs are examined and addressed. School leaders must transform the vision into action with a collaborative school culture.

Ministries of education can develop effective upward and downward decision-making and information-sharing processes. Secondary education policy clearly states educational objectives and standards and identifies the approach for measuring whether students meet those standards. Where schools are privately run, the government should ensure these schools follow the same governance requirements, and governance structures should be put in place to accommodate privately run schools, including support personnel to monitor private schools and ensure they meet the required standards.

Ministries of education can develop career paths for principals, teachers and support staff, introducing performance standards and managing career progression through transparent and merit-based selection, deployment and evaluation criteria. Career-planning processes can help to identify teachers who have the qualities and enthusiasm to become principals, and provide training to help them develop managerial and leadership skills.

The decentralization of education requires a delegation of the authority needed to carry out clearly defined roles and

responsibilities. A system of accountability that motivates success and provides appropriate corrective action for problems can help to guide school performance. Transparency can be enhanced by the collection of timely and reliable information on which to base decision making, and clearly defined open communication channels.

Performance, monitoring and evaluation help school communities make informed decisions on how well they are meeting their goals. Recent EU research points towards the effectiveness of internal and external evaluation and feedback systems, especially where the teaching and learning is taking place in diverse environments, in order to ensure development and innovation.³¹ Collecting evidence and feedback helps build community support for new approaches to teaching and learning.

Collaboration with the local community through school management committees leads to fresh ideas, improved performance and better student outcomes. Sitting below departments, school education boards or school governing boards, school management committees (SMCs) and parent-teacher associations (PTAs) offer a platform for the voice of students, parents and the local community. Collaboration at the local level builds transparency and accountability to the local community. SMCs can also include students, both male and female, empowering them to make important decisions at the school level, such as approving school budgets. This has the potential to increase future civic engagement (see also Thematic Guide 5). Box 1 provides an example of empowerment through SMCs in Nepal.

Accountability is a key feature in devolved collaborative governance, with the leadership responsible for reporting key education statistics to local education offices and the local community: these statistics include enrolment, student progress, retention rates, numbers and disciplines of active teachers, condition of infrastructure, and finances.

Box 1: Young people participating in local governance in Nepal

Traditionally, young people in Nepal have not been part of formal decision-making processes. However, as a result of concerted efforts by the Government of Nepal, this is changing. More than 80,000 young people currently participate in various local governance structures and processes, including health and school committees as well as citizens' forums at the district, municipal and village development committee levels. The Child-Friendly Local Governance Strategy ensures adolescent participation in planning committees and processes through consultations known as 'bal bhela'. UNICEF has been a key partner

in supporting skills training and consultations. To ensure the priorities identified by young people receive funding, the Ministry of Federal Affairs and Local Development established child block grants which obligate local governments to allocate at least 10 per cent of capital grants received to child- and adolescent-related issues. As a result, 56 per cent of child priorities identified in 'bal bhela' consultations in 2016/2017 were incorporated at the district, municipal and village development committee levels, and the central government provided \$44 million for this work through the child block grant.

Source: United Nations Children's Fund, 'UNICEF Programme Guidance for the Second Decade: Programming with and for adolescents', UNICEF website, <www.unicef.org/media/57336/file>, accessed 28 October 2020

b. Financing and funding

It will take substantial resources to ensure that all young people have access to secondary education that prepares them for life and work. Expanding populations, as well as competing government priorities, make it difficult for many low- and middle-income countries to finance education and skills development. Developing new approaches to financing education and skills development is imperative if national priorities, as well as the SDGs, are to be met. The OECD estimates that meeting sustainable development goal objectives for education, health, roads, electricity, and water and sanitation in low-income countries will require an additional annual spending of 15 per cent of GDP, a figure which is expected to rise to over 50 per cent of GDP in the coming decade.³²

Despite the expansion of fee-free secondary education, many young people in low- and middle-income countries are still not able to access secondary education. Currently, 62 million lower-secondary-school age youth and 138 million upper-secondary-school age youth are out of school, according to UIS data for the 2018 school year. If current trends continue, under a third of school-age young people in low-income

countries will be completing both lower- and upper-secondary school in 2030. In lower-middle-income countries, completion rates are projected to reach 63 per cent by 2030, up from half of youth completing both lower and upper secondary today.

How do we address this challenge? It is a vast challenge to ensure that all young people complete a secondary education that prepares them for the future of work. Costing estimates make clear that substantial additional resources will be required. This cost will undoubtedly increase in view of the COVID-19 crisis, which is not yet factored into available costing models. Additional resources will need to come from a combination of domestic, international, public and private sources, as well as through efficiency gains. There are a number of financing instruments that can be used to target the hardest-to-reach and most marginalized students, particularly in contexts where resources are limited.

Expanding the resource base. A basic strategy to avoid difficult trade-offs is to make sure the budget envelope is as large as possible to cover financing needs. To increase total financing for secondary education, a number of strategies can be pursued, both at the national political level and at the education systems level:

- Increasing education budgets by broadening the tax base and/or the share allocated to education. Domestic taxation will remain the main source of revenues for countries, and by extension the main resource for financing secondary education. Increasing domestic resources by broadening the tax base or introducing new taxes, while being careful not to create an additional burden on the poor, will be an important part of the response. Clamping down on tax avoidance and tax evasion could also contribute to this objective. Some countries have also successfully used soft earmarking for human development to help gain acceptance of unpopular tax increases.
- Soft earmarking involves taxing particular goods, services or business activities, and allocating the revenue for a particular spending purpose – in this case, secondary education. This approach is often difficult in low-income countries where governments' internal control systems cannot identify and ringfence different revenue sources. Yet there are ways to overcome difficulties in ring-fencing funds, which can also address concerns about corrupt money management. Earmarked funds can be directed to specific funds such as skills and challenge funds, which then issue receipts that are provided to government taxation agencies, who check them against internal records as proof of payment.
- In India the government legislated for a two per cent Corporate Social Responsibility (CSR) tax for businesses over a certain size. Companies can contribute funds directly to the National Skill Development Fund or the National Skill Development Corporation, a semi-governmental organization with a government- and industry-majority governing body, to fulfil CSR commitments under the Companies (Corporate Social Responsibility) Act, 2013. This allows companies to meet their CSR obligations without having to manage CSR projects. Companies can also develop and support local CSR initiatives and work in conjunction with local schools. Every company qualifying for CSR must make a statutory disclosure in its Annual Report of the Board, part of the mandatory government reporting requirement. The kinds of activities where companies can partner with the NSDC include:

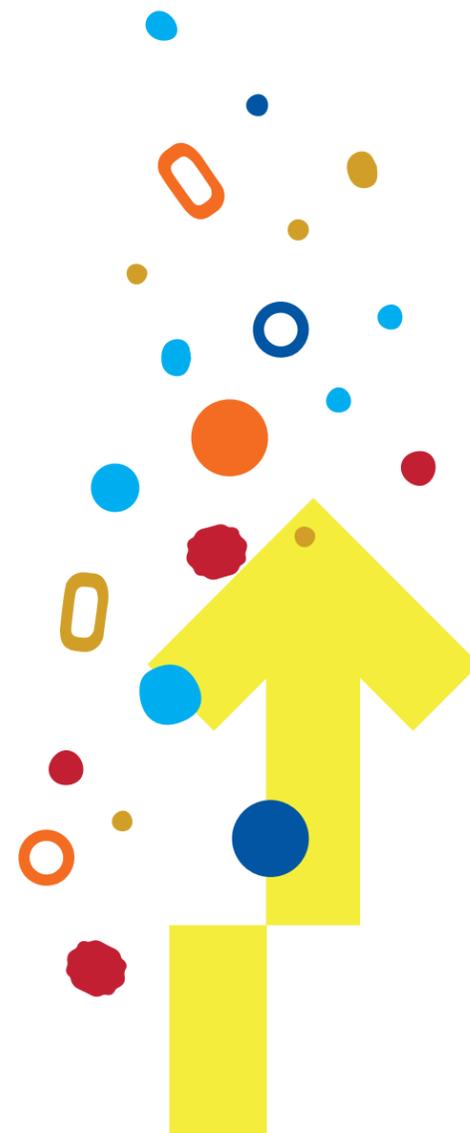


- sponsoring students for skills development programs in priority areas/sectors;
- offer existing facilities and machinery for on-the-job training;
- setting up Skill Centres of Excellence;
- supporting trade-specific labs and training centres;
- setting up a skills development training organization or business unit; and,
- providing land, buildings and machinery.
- There are also opportunities to reallocate resources to education from other sectors, and these could be part of a win-win strategy. For example, taxes on natural resources, or removing subsidies on fuel, could free up resources which could then be targeted, at least in part, toward secondary education.
- Expanding Official Development Assistance (ODA). Expanding ODA further in regards to secondary education could be achieved by either enlarging the total envelope or re-allocating within the funds that exist. Given current pressure on overall ODA budgets, developing instruments that can leverage scarce ODA and mobilize additional financing for education will also be important (e.g. blended finance, incentives to crowd-in financing from other actors such as matching schemes or tax incentives). The soon-to-be-launched International Finance Facility for Education (IFFEd)³⁵ is also a step in that direction.
- Harnessing private-sector financing in targeted areas. The Indian CSR example above is a good example of a model where secondary education at a local level can benefit from private-sector support. Another approach is to use Social Impact Bonds or Development Impact Bonds. A Social Impact Bond is a results-based financing model in which one or more private investors provides funds to a service provider, in this case schools or the ministry of education, to implement programmes. The repayment of the funding is conditional on achieving agreed results. With Development Impact Bonds, an agency or a foundation makes the repayments when the results are achieved. An example is the partnership between the UBS Optimus Foundation and the Children's Investment Fund Foundation, which partnered with

Educate Girls, an Indian non-governmental organization, through the world's first development impact bond in education.³⁴ UBS Optimus provided the upfront capital of US\$270,000 for the implementation of the project, and the Children's Investment Fund Foundation paid the expenses associated with the enrolment and learning outcomes, 80 per cent being allocated to the learning outcomes and 20 per cent to the enrolment outcomes. It was a three-year project running from 2015 to 2018, and surpassed both of the impact bond's educational outcome targets by 160 per cent.³⁵ The project targeted 180,000 girls and boys in Grades 3–5 in 166 government schools and focussed on increasing enrolment for identified eligible out-of-school girls aged 7–14 years by 79 per cent and improving learning for girls and boys in rural, remote and marginalized communities.

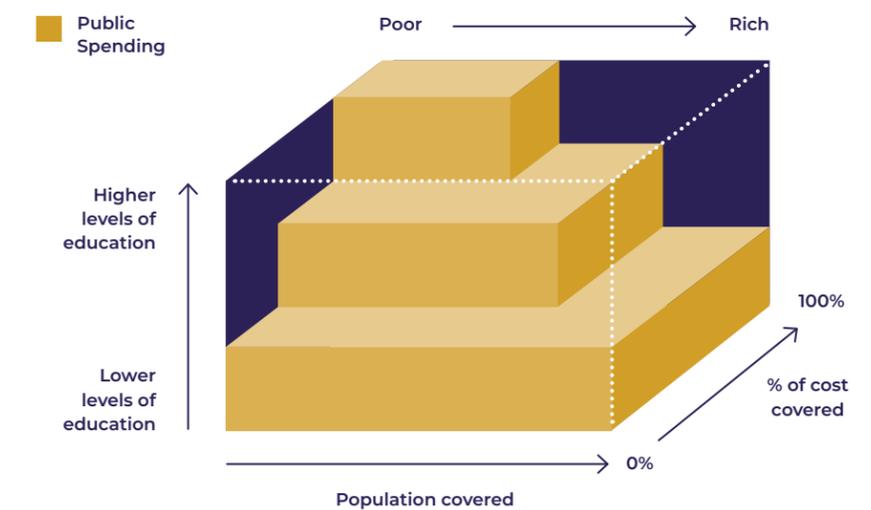
- Company to secondary education system partnerships are often successful in gaining funds through individual companies and company foundations, as education is seen as a low-risk sponsorship opportunity. An example is the Spanish bank Banco Santander, which in 2013 spent US\$196.5 million, or 79 per cent of its CSR budget, on education, with customers donating US\$15.9 million. Banco Santander gave ATM users the option of donating five pesos to education and then matched the funds before distributing funds for educational purposes.
- The World Bank acknowledges that 'mobilizing additional resources for education and tackling the root causes of spending inefficiencies is not something that education systems can solve on their own'.³⁶ Instead, we require a process drawing on multi-sectoral expertise, and involving the ministries of education and finance and other stakeholders, to develop and implement effective financial management systems. Furthermore, we must build capacity to monitor and evaluate education spending, and capture the evidence on global spending patterns, so as to identify the magnitude and causes of spending inefficiencies. These interventions to strengthen financial systems can draw on the progressive universalism model as a framework for discussion.
- Using progressive universalism as the guiding principle to inform discussions on mobilizing and allocating additional

resources for secondary education. SDG4.1 calls on all countries to ensure that by 2030, all girls and boys will be completing free, equitable and quality primary and secondary education. For many countries, however, the path towards free secondary education will be determined by trade-offs, as budgets may be insufficient to cover the full financing of both primary and secondary education. In its flagship 'Learning Generation' report,³⁷ the Education Commission recommends that, when considering trade-offs and balancing spending across different levels of education and population groups, decision-makers should be guided by the principle of progressive universalism, which prioritizes public spending for the poorest and the earlier years, where social returns are highest, and minimizes household spending on basic education by the poor.



- Progressive universalism strongly favours allocation of public funding to the lower levels of the education ladder, which includes pre-primary, primary and lower secondary, and within that to those left behind because of poverty, disability and social disadvantage. Allocations to higher levels, such as tertiary education, should gradually increase as coverage comes close to universal at lower levels. During the gradual expansion of public funding to cover higher levels of education for all, financing for the poorest can be prioritized to ensure that they are not left out of opportunities to pursue upper-secondary and tertiary education. The concept of progressive universalism is useful as, unfortunately, education spending in most countries today strongly favours the richest and is usually skewed toward the higher levels of education. The figure below shows a stylized model of progressive universalism.

Figure 1: A model of progressive universalism in education



Source: International Commission on Financing Global Education Opportunity, 'The Learning Generation: Investing in education for a changing world', International Commission on Financing Global Education Opportunity, 2016, p. 90



- Guided by the principle of progressive universalism, governments can consider a number of strategies and options to fully finance secondary education over time.
- The use of appropriate financing formulas can help to allocate scarce public financing within secondary education while prioritizing equity. In practice, the introduction of fee-free secondary education has not always been accompanied by increased access for the poorest. Equity-based funding formulas offer a way of targeting public education resources to the poorest. Using such formulas, for example, South Africa abolished fees in primary and secondary education for the poorest public-school students. The phasing out was gradual and gave priority to schools in poorer areas before expanding to schools in better-off areas.³⁸ Bursaries and needs-based scholarships, which can be designed to target specific marginalized groups, are also an effective means of increasing enrolment and improving learning outcomes. A study in Ghana, for instance, found that students who were awarded a scholarship were more likely to complete secondary school and scored higher in reading and mathematics tests.³⁹
- Education system level. To increase the effectiveness of these formulas in terms of equity, efforts should be made to consider teacher salaries. Since often this is difficult where teachers' salaries fall under public service pay-scales, part of professionalizing teaching should include creating new categories of pay-scales for teachers that recognize professional certification entry requirements. Providing schools with greater autonomy over how resources are spent can improve local responsiveness, but requires balancing with strong accountability measures.
- The Education Commissions' 'Learning Generation' report identifies four transformations for achieving the learning generation:
- Performance. Reform education systems to deliver results: national decision-makers must set national standards, assess learning, and monitor progress and collect evidence-based proof to deliver the best results; and seek to reduce inefficiency and corruption that inhibit students from learning.

- Innovation. Invest in new approaches and adapt to future needs. Education leaders can strengthen and diversify the education workforce, harness technology for teaching and learning, and improve partnerships with non-state actors.
- Inclusion. Prioritize the poor and early years using the progressive universalism model and invest across sectors to tackle the factors preventing learning.
- Finance. Mobilize more and better domestic resources for education, increase the international financing of education and improve its effectiveness, establish a Multilateral Development Bank (MDB) investment mechanism for education, and ensure leadership and accountability for the Learning Generation.⁴⁰

c. Improving learning outcomes for young people

- Effective education and training require an alignment of curriculum, pedagogy and learning assessments – all of which require a systematic strengthening of teaching and learning through multiple pathways. The International Bureau of Education has identified the curriculum as one of the most effective tools for bridging the gap between education and development. For young people to succeed in today's world requires broad competence in critical thinking, collaboration, problem solving, information technology skills, vocational skills, communication and teamwork. Developing these 21st-century skills requires an interplay between a well-designed curriculum, key learning and assessment activities, and the facilitation of student-centred learning that engenders the skills for, and an appreciation of, lifelong learning. Each of these aspects of the learning process improves learning outcomes for young people. Improving learning outcomes necessitates that school and curriculum reform be complementary with reform of teacher initial and continuing education.

Developing relevant curricula

- There is no universal definition of 'curriculum', nor is the term universally

used, though it is gradually becoming mainstream. Various regions of the world use terms such as 'study programmes', 'course outline', 'course of study', 'syllabi', 'teaching subjects', 'courses', etc. Curriculum is relevant to all levels of education, and there are commonalities between the different settings. A curriculum is developed through a process of consultation and consideration of stakeholder needs, whether these be teachers, students, community and minority groups, employers and worker organizations, research organizations, or international donor agencies. A contemporary curriculum recognizes students as active partners in their own learning, and seeks to develop their potential as active citizens.

- A planned curriculum identifies the aims and content of what is to be taught, and also takes into account what is available for students to progress in their learning and their ability to learn and interact with the curriculum; it should also acknowledge the role of teachers in facilitating the holistic development of active learners.

The different aspects of a curriculum are often referred to as the written curriculum, taught curriculum, learned curriculum and assessed curriculum. Increasingly, curriculum development emphasizes learning outcomes in order that students might demonstrate their mastery of their learning. Contemporary curricula are likely to be moulded by autonomous local stakeholders, be flexible and responsive to individual needs, and display a balance between assessment for learning and assessment of learning (also known as 'formative' vs 'summative' assessment).

- In 2013, the International Bureau of Education brought together the heads of curriculum from 150 UNESCO Member States to consider how curriculum can meet the needs and challenges of the 21st century. They identified that curriculum is often a platform for education reform and must support equity and quality to support inclusive sustainable growth. The following table (Table 2) on curriculum components and questions is adapted from the International Bureau of Education's curriculum training materials.

Table 2: Curriculum components and related questions⁴¹

Transferable Skills	Key Roles
Curriculum rationale or vision	Why are students learning what they are learning?
Curriculum goals and objectives	What are the goals, aims and objectives of what they are learning?
Curriculum and course content	What are they learning? (e.g. competencies, knowledge, skills)
Learning, assessment and teaching resources (print and /or digital)	What are they using to learn? (e.g. print and/or digital resources, reference materials)
Learning and assessment activities	How are they learning? (e.g. simulations, discussions, design and build)
Instructional time	When are they learning?
Teachers' role(s)	How is the teacher guiding and facilitating learning?
Student groupings	With whom are they learning? (e.g. age, grade, other groupings)
Spaces	Where are they learning? (e.g. classroom, online, through a work experience)

Adopting a lifelong learning approach

Lifelong learning calls for a conceptual shift: we must get away from the notion of the education system producing competent workers and members of society as the outcome of a finite learning process, in favour of ongoing engagement in personal and professional learning throughout the life of an individual in order to keep their knowledge and skills up to date.

Building opportunities for lifelong learning entails consideration of factors on multiple levels. At a macro level, i.e. concerning national education systems, flexible learning pathways call for multiple entry and exit points, flexibility in where and how the learning occurs, a reduction in age-related entry requirements, an opening up of the training markets in terms of who can provide quality education and TVET, and a variety of funding mechanisms to support lifelong learning. At the meso level, boundaries between each of the education sectors are blurred and entry into formal learning opportunities through informal and non-formal learning is supported by flexible learning options to expand possibilities for quality learning. At the local level, learning can foster active and engaged citizens through the relationship between a diversity of learning environments, contemporary curriculum, skilled teachers and active citizens who are given inclusive access and support to continue learning.

Creating bi/multilingual learning environments

Being bi- or multilingual is a 21st-century necessity. More students from linguistically and culturally diverse backgrounds are entering schools, due to the increase in migrant workers, refugees, internally displaced people, and greater recognition and acceptance of minority groups within a globally connected multicultural world. These trends increase the obligation of education systems to address marginalized and minority group students' cultural and linguistic practices. Research suggests that culturally responsive teaching should have 'as its explicit goal supporting multilingualism and multiculturalism in practice and perspective for students and teachers.'⁴² A recent survey of teaching standards in fifty American states cites eight competencies that culturally and linguistically responsive educators possess.⁴³ Table 3 lists these eight competencies.

Table 3: Eight competencies that culturally responsive educators possess⁴⁴

Competency	Description
1. Reflect on one's cultural lens	Culturally Responsive Educators (CREs) are reflective about their own group memberships that may be based on race, ethnicity, social class, and/or gender. They are cognizant that their life experiences and those group memberships may create biases that can influence their interactions with students, families and colleagues.
2. Recognize and redress bias in the system	CREs recognize that their students' access to educational opportunities may be influenced by their social markers (e.g. race, ethnicity, social class and language) and advocate for all students to have access to high-quality teachers and schools.
3. Draw on students' culture to shape curriculum and instruction	CREs draw on their students' cultures and life experiences when planning their instruction and reject instructional materials that contain cultural biases and/or stereotypes. They supplement the curriculum if it lacks the representation of their students' heritage.
4. Bring real-world issues into the classroom	CREs connect their curriculum to real-world problems and ask students to consider solutions to them. These issues may involve injustices that exist in their communities or nationwide. Through this process, CREs empower their students to see themselves as change agents that can right the injustices that exist in the world.
5. Model high expectations for all students	CREs hold high academic expectations for all students and believe that all students are capable of academic success.
6. Promote respect for student differences	CREs are models for how all students should respect one another and embrace their fellow classmate's social, cultural and linguistic differences.
7. Collaborate with families and the local community	CREs work to break down barriers that may keep students' families from participating in their young people's education (i.e. work schedules, language barriers). CREs make efforts to learn about the families and community in which they teach.
8. Communicate in linguistically and culturally responsive ways	CREs understand and honour both the verbal and nonverbal culturally influenced communication styles of the community in which they teach. They also seek to communicate with parents who speak a home language other than English by utilizing translation services.

Source: 'Culturally and Linguistically Responsive Teaching', California Department of Education website, <www.cde.ca.gov/pd/ee/responsiveteaching.asp>, accessed 27 October 2020

Improving quality of teaching

International good practice views teachers as lifelong learners, supported by quality teaching standards, initial teacher education, and continuing professional development and performance evaluation processes that can reinforce this principle through a range of self and group learning techniques, quality teaching rounds and evaluation tools such as professional portfolio assessment and peer-reviews, for example. Teacher quality standards and continuous professional development are a fundamental component of any quality teaching system, helping to professionalize practice, increase responsiveness to the community and student needs, and improve the quality of graduate outcomes as regards active social engagement, employment and preparedness for lifelong learning.

A literature review by the Scottish Government found four models of teacher professionalism: the effective teacher; the reflective teacher; the enquiring teacher; and the transformative teacher. The dominant characteristic for each is as follows.

- The effective teacher emphasizes technical accomplishment.
- The reflective teacher emphasizes the need for continuing and collaborative professional learning.
- The enquiring teacher promotes an explicit research orientation within the teachers' work.
- The transformative teacher seeks to revitalize debates on teacher professionalism by positioning teaching as a transformative activity.⁴⁵

These models of teaching exist on a spectrum: all have some strengths, and healthy education systems contain a balance of each. Nationally agreed quality teaching standards, and a conceptual framework to support the successful implementation of a teacher performance evaluation framework, can lead to sustained benefits for the education system overall. Contemporary teaching standards should encourage innovation and continuous improvement in practice, rather than simply setting standards of performance which have to be met. A well-thought-out performance framework can promote teacher agency, empowerment and responsibility. Teacher standards and performance frameworks that work towards intensified external control of teachers will have unintended disempowering effects which impact motivation. There must be a balance between emphasizing teacher improvement, group learning processes, and individual accountability.

Contemporary teaching methods emphasize enquiry and inter-disciplinary project-based learning, and teachers can gain experience of these approaches in their initial education as well as during continuing professional development. Research shows that assessment as a learning tool is relevant in initial teacher education as well as continuing development, with student teachers who prepared portfolios as part of their studies graduating with more productive skills, and student teachers with strong portfolios going on to have students with higher educational outcomes.⁴⁶ Feedback on teaching becomes both a personal reflective process and an opportunity for growth. Research shows that effective teacher learning is institution-based, local to their workplace, and collaborative; it fits with the school culture and ethos, addresses the particular needs of teachers, and is peer-led and sustained. Collaborative continuous

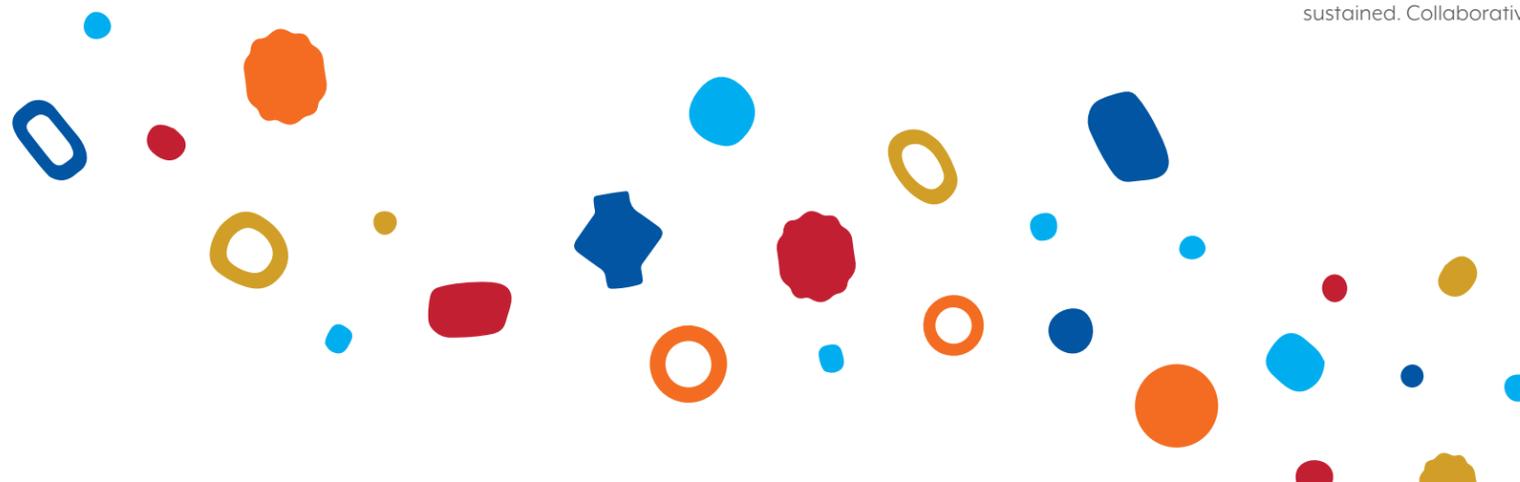
professional development is more effective than individual learning, and personal and collaborative feedback mechanisms help bring about positive changes in teachers' practice, critical thinking or attitudes. These, in turn, find their way into the classroom and benefit student performance and outcomes.

In some regions of the world, teachers earn low salaries, have little control over how they work, and face high teacher-student class ratios. In these situations, teachers' motivation to improve their performance can be increased by other incentives, such as access to continuing professional development or greater autonomy in the classroom; this can increase retention and sustain teacher quality. When planning and designing teaching standards and performance evaluation systems, it can be useful to involve teachers in the discussions at an early stage, seeking their views on purpose and design; this can enable implementation to achieve more positive results for all stakeholders.

Implementing learning assessment systems

Assessment is a crucially important activity. It is used at different stages of the learning process, and as a part of the learning process itself. Generally, before the learning process commences, there is diagnostic assessment to help identify what the student already knows, the most common form being entrance exams. Subsequently, there is formative assessment during the process of learning to determine the progress and consistency of learning. And then there is the final summative assessment, although this can draw on formative assessment outcomes as part of the summative assessment decisions.

Assessment for learning (AfL) is a structured collaborative type of formative assessment; although it is often overlooked, research demonstrates that it is a vitally effective learning mechanism. Because it is so effective for inculcating 'learning to learn' skills, diagnosing problems and reflecting on personal performance for improvement and growth, AfL is used at all levels of education, from primary schools to leading universities. In this type of formative assessment, teachers seek to find out what students know and what skills they have developed so that follow-on activities can be targeted in a way that best enhances learning. Teachers encourage students to talk about their learning, how they interpret their progress,





and what the students themselves identify as areas for improvement and areas of strength. On this basis the teacher can then more accurately determine what is needed. Students can use this form of assessment to develop their reflective skills as well as critical analysis skills, both of which are important for problem solving and continuous personal growth. Timely feedback on activities aligned to learning goals is extremely important for developing adaptive expertise, since such feedback is most valuable when students have the opportunity to use it to revise their thinking as they are working.⁴⁷

Concurrently, students can interrogate their learning to develop their knowledge of their own ideas and skills. Through the process of routine feedback, learners learn to resolve small problems and misunderstandings, and form stronger links between ideas. This develops learners and helps them to become reflective about their learning and practice. Many teachers use formative assessment in the classroom, but it is not widely used in a systematic way. According to OECD research, several countries are applying formative assessment as part of fundamental reforms to their education systems.⁴⁸

A major literature survey of over 250 sources on assessment for learning found that the impact of effective assessment practices can be significant, and when student tasks are aligned with learning goals this can result in a substantial boost to student performance. Assessment for learning is particularly useful for supporting low-attaining pupils. As we have noted, however, for this sort of assessment to be effective, students need meaningful and timely feedback on their performance, as well as targeted follow-up work. Furthermore, the research finds that students need to understand: (a) the measures on which they will be judged; (b) where they stand on these measures; and (c) how they can improve.⁴⁹

Importantly, AfL has few additional costs other than those linked to teacher professional development. Research indicates that AfL is more likely to be successfully implemented if the curriculum and assessment activities are developed together, and if there is space in the curriculum for assessment – the latter, for example, could take the form of a module concerned with assessment that is integrated throughout the learning programme.

Harnessing innovation

The ability to innovate is an important skill within education systems themselves, and is also key for a future labour market in which creativity, problem solving and making new connections will be prioritized over routine tasks. Approaches such as *e-learning*, *peer learning* and *accelerated learning* can be used to overcome some of the specific barriers that keep young people from accessing education, while also building digital skills. Innovation can take many forms: while *technological* innovation is the form that most commonly springs to mind, it is important not to overlook *process* innovation and *service* innovation.

Recognizing the importance of digital skills for inclusive growth, in 2014–15 the Government of India launched the Digital India mission, designed to transform India into a knowledge economy. The pillars of this mission involve expanding public access to the Internet, boosting e-government services and increasing the number of information technology jobs, all of which turn on ICT skills being widespread within the population. Having identified Artificial Intelligence (AI) as a priority area, the Ministry of Electronics and Information Technology, in collaboration with Intel

India, designed a national programme for government secondary schools called Responsible AI for Youth. This programme, which is managed and financed as a public–private partnership with cross-ministerial coordination, addresses all aspects of innovation and is being implemented online across India. It aims to empower young people aged 14 to 18 to develop skills in using AI tools, and so help reduce the AI skills gap in India while providing them with an opportunity to become part of the skilled workforce. The objectives are to demystify AI for young people and equip them with the skills and mindset required for AI aptitude; to provide inclusive access to AI tools and train youth to use them; and enable young people to create meaningful social solutions. During the first phase of the programme, selected teachers and students underwent orientation and online training sessions, leading to online submission of ideas by students in a video format. The top 100 ideas will be shortlisted, and these students will begin detailed training sessions on AI tools. After the training sessions, students will rework their ideas and submit a final project video. From the 100 projects, 50 will be shortlisted and students will be invited to showcase their projects. The 20 most innovative projects will be selected as winners.⁵⁰

Investing in innovative ways of delivering education. Alternative approaches to delivering education have been emerging around the world, in particular in the context of health crises, conflict and natural disasters. These include digital learning models, accelerated learning, blended learning, catch-up programmes and individualized learning. As additional ways of making secondary education available, including for the most marginalized, the effectiveness as well as the relative costs of such approaches need to be further analysed: however, a number of past initiatives for the secondary level have already been well documented.

• Mexico's *Telesecundaria* educational television programme is considered to be a sustained success. Since its creation in 1968, *Telesecundaria* has offered a way to deliver lower-secondary education in remote rural areas through television programmes and self-study materials with the support of one teacher per classroom covering all subjects.⁵¹ Past

evaluations have found the programme to be as effective as traditional secondary schools, with lower dropout rates and comparable – albeit slightly lower – exam results for a similar cost to conventional secondary education.⁵² *Telesecundaria* has since been expanded to other countries and continues to serve a large number of secondary-level students in Mexico.

• Sistema de Aprendizaje Tutorial (or SAT), another learning system in Central America, provides alternative lower- and upper-secondary education to rural young people, integrating a learning-by-doing methodology so that students can continue agricultural pursuits

supported by a curriculum that is relevant to agricultural innovation and rural community development. Evaluations found that youth in SAT villages in Honduras had test scores 45 per cent better than young people in neighbouring rural government schools, and mixed-methods qualitative studies suggest that SAT students also had a stronger sense of social responsibility for their community, alongside an enhanced sense of empowerment among females.

A gender-inclusive example of innovation is the South African TechnoGirl programme, which involves workplace partnerships, mentoring, and financial support for girls to enable them to continue their studies (Box 2).

Box 2: TechnoGirl STEM for girls

TechnoGirl is a mentorship and job-shadowing programme for young girls from underprivileged schools in South Africa studying Science, Technology, Engineering and Mathematics (STEM). The TechnoGirl Trust started in 2005 and is based on a PPP [public–private partnership] model in which companies and organizations provide job-shadowing opportunities for girls focusing on STEM careers. Through the TechnoGirl programme, girls aged 15–18 in Grades 9–11 at underprivileged schools with an aptitude for mathematics and science are identified and placed in a structured job-shadowing initiative in private and public companies. This corporate mentorship provides them

with exposure to the workplace in STEM-based careers and helps build their confidence and skills. The strategy is that by participating in a 'structured job-shadowing process', girls gain the knowledge and skills relevant to careers which are in demand on the job market, as well as job experience and role models in STEM careers, with the aim of motivating these girls to aspire to careers in STEM and so study in these fields. The programme involves placing girls in company workplaces on a long-term, structured and systematic basis. Typically, the girls are placed within a company for five days per school holiday, for three consecutive holiday periods annually over a period of three years.



Integrating information and communications technologies (ICT)

Digital literacy is a central skill for active citizenship as well as for the future world of work, especially if we aspire towards inclusive growth. Yet there are challenges associated with integrating ICT in education, training, and the management of skills systems, since there are significant cost implications, especially in low-income countries.⁵³ The importance of getting all young people connected to the Internet and reaching out to them with learning and skill-development opportunities has never been more apparent. Technological solutions now exist which can enable every young person to fulfil their potential – provided they can be reached.

The COVID-19 pandemic has put the digital connectivity gap and learning crisis in the spotlight; the stark reality of the divide, however, means that there is now also a ‘once in a generation’ opportunity to ensure all young people are digitally connected and have the skills and opportunities to succeed. Fortunately, alongside the need exposed by the pandemic, new means are emerging through which to respond to it.⁵⁴

- **Increased demand:** There has been an unprecedented increase in enrolments on renowned digital learning platforms such as edX, Coursera, Khan Academy, Udacity, etc. More than 60 countries have established digital learning platforms over the course of the COVID-19 crisis.
- **Increased affordability:** Zero rating by mobile network operators during COVID-19 is lowering the costs associated with accessing digital learning.
- **Increased experimentation:** The closure of schools has resulted in the adoption of innovative ways to deliver remote learning through a wide range of approaches including online learning, television, radio and mobiles, as well as provision of printed material to those in low-connectivity areas. UNICEF is supporting 60 national digital education platforms. This experimentation provides a conducive environment to test and adapt approaches so as to maximize both the reach and impact of innovative solutions.

The most impactful digital learning solutions are also those which do not exacerbate existing inequalities. Thus, such solutions

- have an explicit focus on enhancing the learning outcomes and foundational, transferable, digital, entrepreneurial and job-specific skills of young people;
- overcome the barriers that impede access for the most deprived or marginalized youth;
- enable facilitators, including teachers, to support young people including through provision of feedback loops;
- are backed by sufficient financing to guarantee sustainability;
- keep young people safe online; and,
- include analytics and evaluation to measure access and learning.

In addition, they are:

- **Interactive.** Unlike broadcast media, (e.g. radio, TV), where information flows only in one direction, digital platforms can disseminate information to learners and collect it from them, thus closing the feedback loop between remote educators and learners. This allows systems to assess learners and respond to their progress.⁵⁵
- **Adaptive.** Digital platforms can target instruction to meet students’ learning levels. By personalizing their instruction these platforms increase the effectiveness and efficiency of learning. Such approaches can be enhanced by the application of AI and machine learning.⁵⁶
- **Playful.** Approaches which make learning motivating and engaging, such as ‘Gamification’, can improve students’ motivation, engagement and learning achievements.⁵⁷ That said, other forms of play-based learning should also be encouraged, so that young people can learn how the physical and social worlds work.⁵⁸
- **Inclusive.** Universal Design for Learning (UDL) produces hardware and applications to help all youth learn, including those with disabilities;⁵⁹ e.g. accessible e-books with sign language or described images.
- **Market-relevant.** Digital platforms allow learners to practice and refine their digital skills, and these are marketable learning outcomes in themselves. However, the initial lack of basic digital skills must first be overcome.⁶⁰
- **Nimble.** Digital platforms can be combined with other approaches, including paper-based material and mobile phones.⁶¹

Promoting safe, non-violent and inclusive learning environments

In six out of the seven UNICEF regions, most young people from the poorest quintile have never set foot in lower-secondary educational institutions. In low- and lower-middle income countries, the majority of young people have never attended secondary school; they are more likely to have never entered school at all, have dropped out, or still be enrolled in primary education. The gender gaps in both lower- and upper-secondary education have been closing steadily over the last two decades, but analysis by country shows that only 49 per cent of countries have achieved gender parity in lower-secondary enrolment and 24 per cent in upper-secondary.⁶²

Conflict is a major factor in exclusion from formal education. In conflict zones, young people of lower-secondary age are two thirds more likely to be out of school, and half as likely to complete lower-secondary school.⁶³ Across all regions, disability is a significant factor linked to formal education exclusion, and is exacerbated at secondary level. In low- and lower-middle-income countries, around 55 per cent of young people with disabilities of lower-secondary age are out of school, compared to 40 per cent of primary school age.⁶⁴

Measures for creating a safe, non-violent school environment include the initiatives found in the Campaign for Girls Education and Raising Voices (CAMFED) and adopted by the World Bank’s Implementing a Safe Schools Program (SSP). These measures include:

- employing trained school guidance counsellors;
- using positive discipline methods to help teachers manage classes in a calm and respectful way rather than resorting to corporal punishment;
- training school staff and local communities on school management, teacher codes of conduct, and methods to ensure safety to/from school;
- strengthened grievance redress mechanisms; and
- a student life-skills programme.⁶⁵

Successful reductions in gender-based violence have been achieved by bringing schools closer to communities so as to reduce the distance travelled, and expanding the secondary school community network. Gender-based violence can be reduced by developing a secondary education gender-based violence response and prevention plan, and strengthening grievance redress mechanisms within schools and local government structures. Safe and private ways of reporting incidents also help keep schools safe and non-violent.

Young people displaced by armed conflict, violence or natural disaster are exposed to increased risks, including recruitment by armed groups, killing and maiming, risky migration, trafficking and unlawful detention, and abuse and exploitation – including child labour and sexual violence. The risks and needs of adolescent girls and boys diverge in considerable ways, and in most settings adolescent girls

disproportionately lack the information and capacities to navigate the risks that may follow displacement. Box 3 summarizes some recommended actions for addressing the protection needs of young people in humanitarian settings.

Ensuring community participation

The research clearly and consistently shows that parent, family and community involvement in education results in higher academic performance and school improvement. When schools, parents, businesses and communities work together to support learning, students tend to earn higher grades, attend school more regularly, stay in school longer, and enrol in higher-level programmes.⁶⁶ Researchers identify community participation as a key to addressing high school dropout rates, as well as the higher educational aspirations of more motivated students. There are also beneficial impacts for minority and disadvantaged students.



Box 3: Actions for addressing protection needs of young people in humanitarian settings

- Establish information management systems and strengthen assessment and monitoring tools that systematically provide and analyse data disaggregated by age, sex and disability status.**
- Invest in the capacity and preparedness of frontline workers such as teachers and the health and social welfare workforce, to identify and mitigate specific risks for adolescent girls and boys.**
- Support community-based interventions, including girl-centred interventions, that address the psychosocial needs and vulnerabilities of young people (younger and older), and build their capacities and skills using approaches such as peer support.**
- Provide long-term, age- and gender-appropriate socio-economic reintegration services for adolescent survivors of grave violations to help them transition back into their communities.**
- Establish adolescent-friendly and safe community-based complaint mechanisms and referral pathways including on how/where to access age-appropriate clinical management for survivors of sexual violence.**
- Promote practical alternatives to the detention of young people seeking refugee status or migrating, such as providing foster care and supervised independent living for unaccompanied and separated children, and compulsory registration with authorities.**
- Engage young people in decision-making processes that allow them to voice their views and help them realize their own agency through accountability mechanisms and active engagement in recovery, peacebuilding and disaster-risk reduction in their communities.**

Community participation is considered to be a hallmark of high-performing schools,⁶⁷ helping build safer school environments and enabling early interventions to prevent dropout. Community centres, for their part, can provide support such as childcare, nutrition advice and mentors for students in danger of leaving. School-Based Management (SBM) committees offer another area where the community can participate in school. Community participation can also reduce cultural and language barriers and build holistic support for young people.

Extending community networks to include local employers and TVET providers can create opportunities to build partnerships, increase educational outcomes for students, and smooth the transition from school to further education or work.

Cross-agency and multi-agency programming can be fostered to address the whole range of adolescent needs and rights effectively and efficiently. A cross-agency approach should be applied wherever it adds value or efficiencies. In a partnership, all actors need to start by identifying the desired results at the level of the adolescent, and then design the cross-agency interventions based on existing evidence, using the most appropriate delivery platforms. For example, when working on lower-secondary education, a multi-agency approach is needed where actors concerned with education, social protection, child protection, health/nutrition, and water, sanitation and hygiene (WASH) all work together to identify the most appropriate and cost-effective strategies to address barriers and sources of gender inequality. Table 4 provides an illustration of cross-agency interventions to increase and sustain access to education for adolescent girls and boys.

Local businesses, where they exist, can participate in job fairs, career information days, and after-school activities like sport, and sponsor certain activities. Local businesses can provide work experience options for students such as short-term placements, as well as providing insights into the sector and the workplace. Local businesses might be sole traders, cooperatives,

local enterprises or NGOs. Students placed with employers are not necessarily there to undertake activities which require extensive training or expertise, but primarily to observe and learn, so as to determine their level of interest in that particular sector or business activity. More formal work-based learning can also be provided by local employers as part of a TVET in Schools programme, where students undertake structured workplace learning or on-the-job training, during which they are expected to master a set of learning outcomes, skills or competencies related to a set of occupational competency standards.

Partnerships with TVET providers enable schools to offer young people a greater range of education and training options. Schools can provide the general education component while the TVET provider can provide the vocational education and training component that requires access to expensive equipment or machinery, meaning students can access equipment and educators with experience in the occupation being taught. The Sri Lankan case in the section on technical and vocational education and training (TVET) below is a good example.

Table 4: Examples of cross-agency interventions to increase and sustain access to education for adolescent girls and boys

?	?
Health services	<ul style="list-style-type: none"> Puberty and sexual and reproductive health information Nutrition supplements administered in schools for adolescent girls (e.g. anti-anaemia iron & folic acid supplements)
Schools (formal and non-formal learning platforms)	<ul style="list-style-type: none"> Budgets and sectoral plans addressing equity Inclusive and gender-responsive pedagogy and teaching and learning materials Relevant skills for learning, personal empowerment, employability and active citizenship Social protection programmes (e.g. cash transfers, scholarships, uniforms, bicycles) Gender-segregated accessible toilets Menstrual hygiene management facilities in schools Re-entry policies for adolescent mothers and crèches for adolescent parents/caregivers Healthy school meals
Families and communities	<ul style="list-style-type: none"> Life-skills education for young people Social protection programmes (e.g. cash transfers, scholarships, health insurance) Parenting programmes Peer support Community engagement to address negative social norms Adolescent and young people group movements
Digital and non-digital communication platforms	<ul style="list-style-type: none"> Media and interpersonal communication interventions to build community awareness and address negative social norms



Using early warning systems

UNICEF's 'Early Warning Systems for Students at Risk of Dropping Out' notes that observable 'red flag' signs 'such as frequent absenteeism for sickness, unauthorised absences, isolation from peers or a sudden drop in school performance' are often better predictors of dropout than a personal or family characteristic.⁶⁸ Developing processes to monitor red flag warning signs can assist schools and communities to develop effective responses before students do drop out.

d. Investing in the implementation of multiple learning pathways for secondary-age adolescents

Multiple learning pathways are needed to reduce the risk of dropout or to guide young people back to the formal education system and/or provide other accredited learning opportunities that enable them to access improved labour market opportunities. The design and

delivery of different pathways are based on the specific needs of young people and often have multiple entry and exit points. Alternative learning pathways can reduce inequalities, including gender inequality, by opening up secondary learning opportunities to a wider group of young people, inclusive of vulnerable or disadvantaged groups.

People continue learning regardless of their age or situation, and we all learn and process information differently. Many young people do not find passive learning approaches sufficiently stimulating and may therefore drop out of formal education despite their intelligence, or their potential to become valuable contributors to society. In these cases, the formal education system has failed to meet the needs of young people. Access to multiple learning pathways that target the needs of particular learners may increase the likelihood of meeting their learning requirements and keep them engaged in formal education. Multiple learning pathways provide an opportunity for education systems to become more versatile, while still working towards

enhancing the quality of education provided. Alternative learning pathways can be instituted both within and outside of formal education, offering flexibility in settings and modes of delivery. Examples of different pathways include remedial programmes, formal education in non-school settings, and TVET in Schools. Multiple learning pathways make a country's education system more dynamic, providing more versatility and increasing the capacity within the system to meet the country's education needs.

Including alternative learning pathways in Education Sector Plans

Education Sector Plans (EPS) set the long-term vision of an education sector, shaping the strategic direction and determining how the sector will operate. The plan is based on evidence concerning the state of the education system, and analysis of the causes of any system weaknesses or difficulties encountered. The analysis should encompass the country context, existing policies and their effectiveness, performance of the education sector, system capacity, and cost and financing.⁶⁹

ESPs should include costed policies and strategies designed to help marginalized groups to develop secondary-level skills and access learning through formal and non-formal education pathways. Making equity a focus during the education sector analysis will provide the necessary data for a robust expansion of alternative learning pathways (ALP). The analysis should ascertain the effectiveness of existing policies and determine how successfully the system has utilized early warning signs and existing pathways to prevent dropout. ESPs focus on implementation, measurement and outcomes in order to address challenges and meet the education needs of the country. Table 5 summarizes the seven key elements of ESPs pertaining to Gender Equity and Social Inclusion.

Table 5: Summary of seven key GESI elements of ESPs

Education Sector Plan Components	Gender Equity and Social Inclusion (GESI) considerations
Education Sector Analysis	The sector analysis provides a description of the condition of the education system, and an analysis of the causes of any system weaknesses and difficulties encountered, with reference to the social, humanitarian and demographic context of the country. Analysis covers the evolution of enrolment and enrolment capacity, gaps in GESI performance, access and retention, out-of-school youth and social mobility and the economic impact of education.
Setting policy priorities and key strategies	Policy priorities and key strategies are defined through policy dialogue led by the government with GESI groups and other key stakeholders. They must address the challenges identified during the education sector analysis, and are evidence-based, achievable, coherent and consistent with demographic and economic perspectives. The key strategies are accompanied by measurable targets to measure sector performance.
Programme design	Programme design addresses GESI challenges and are linked to a target as an expected outcome. The programme objectives must address the underlying cause, with realistic outcomes and targets for each of the identified GESI groups. Design seeks to ensure alternative learning pathways lead to formal recognition and entry points into formal school and TVET.
Plan costing and financing	Plan costing and financing must be consistent with the principles of distributive equity in public education expenditure, while remaining within the constraints of overall public education expenditure and non-government education expenditure. Costs associated with GESI programme implementation and monitoring and evaluation are specifically identified.
Action plan	The action plan defines all the activities, including those specific to GESI goals, along with the allocated expenditures and responsibilities for a medium-term period of the strategic plan.
Implementation arrangements	Implementation arrangements include a capacity needs to ensure that the GESI programmes can be successfully implemented.
Monitoring and evaluation	Progress and achievements as regards all established targets and outcomes are measured with different indicators at various levels, including GESI indicators across all programmes. Monitoring and evaluation includes evidence and testimony from civil society, GESI target groups and other key stakeholders.

Ensuring that alternative learning pathways lead to certifiable quality learning

While alternative learning pathways do not necessarily have certification entry requirements, they can provide a means of achieving educational qualifications alongside formal education. From an equity position, and where trained teachers are involved, certification through alternative learning pathways can just as valuable as formal education, and can form part of a wider qualification and quality assurance ecosystem. Many national and regional qualifications frameworks, such as the United Arab Emirates National Qualifications Framework, include processes for recognizing certifications from other countries or systems, including making provision for the recognition of certifications held by refugees, migrant workers and internally displaced people.

Integrating alternative learning pathways with the mainstream (formal) education system

Alternative learning pathways offer a second chance at education for young people who have dropped out, are at risk, or simply had no access to formal education. An example of an inclusive alternative pathway initiative is the 'Let Us Learn' programme in Nepal. The GATE (Girls Access to Education) component of this programme has been highly effective in targeting girls who have never been in formal schooling, whether due to poverty, caring responsibilities, or parents' traditional views (see Box 4). According to UNICEF research based on a sample of 7,394 GATE beneficiaries in five districts of Nepal, there was 95 per cent completion rate by girls enrolled on the programme, with 89 per cent of girls making a successful transition to formal school. More impressively, GATE graduates enrolled in Grades 3 to 5 in formal schools outperformed non-GATE girls enrolled at the same levels, even though GATE girls overwhelmingly had no prior formal school experience.⁷⁰ Cost per GATE participant is estimated at \$76, lower than the estimated annual cost per student in public primary school in Nepal (\$245). Seventy-three per cent of GATE graduates who did not go on to formal education, did so because they had received paid employment.



Box 4: Reaching the vulnerable through multiple pathways – 'Let us Learn' Nepal

The 'Let Us Learn' programme in Nepal has reached some of the most vulnerable youth in the most disadvantaged districts. Both formal and non-formal education initiatives have been used to ensure that young people in Nepal have access to quality learning opportunities. Remedial education and ALPs have provided new education opportunities for youth who have either never attended school, or who were forced to drop out for economic reasons. Innovative programme components, such as GATE (Girls Access to Education), Schools as Zones for Peace, the Urban Out-of-

School Initiative and Young people as Drivers of Change, have strengthened schools, supported individual learners and benefitted communities throughout Nepal. To date, 11,048 young people have accessed education through the Urban Out of School initiative and GATE programme; out of the 9,864 girls enrolled in GATE, 78 per cent have integrated into the formal school system, 25,759 students participated in after-school learning activities, 400 schools implemented an early learning programme, reaching 27,257 young learners, and 923 teachers were trained in early childhood learning.

Source: United Nations Children's Fund USA, 'Nepal: Multiple Pathways to Learning', UNICEF USA website, n.d., <www.unicefusa.org/mission/protect/education/let-us-learn/nepal-multiple-pathways-learning>, accessed 20 August 2020

The nine-month GATE programme provided out-of-school adolescent girls with the basic literacy, numeracy and life skills they needed to (re)enter formal schooling, as well as foundational skills and education concerning topics of direct relevance to the girls' contexts, including child marriage, gender-based violence and reproductive health. UNICEF follow-up research identified the following key recommendations:

- Provide financial support to girls who successfully make the transition from the GATE programme to formal school;
- Address the stigmatization of GATE learners in formal schools;
- Expand the GATE non-formal education programme, which targets the most marginalized girls, to other provinces in Nepal;
- Explore the feasibility of expanding GATE, as a cost-effective programme, to target out-of-school young people in other countries;
- Work with school authorities and communities to ensure that schools are youth-friendly, and to decrease discriminatory practices in formal schools that receive GATE graduates – emphasizing that welcoming GATE learners will not negatively affect school performance;
- Work closely with local governments to link older GATE learners with entrepreneurs to ensure decent livelihoods for the future;
- Provide additional support through facilitators to help convince parents to enrol GATE graduates in formal school once the girls have completed the programme;
- Conduct intersectoral work through Communication for Development (C4D) or other community engagement programmes to address the stigmatization of ethnic groups and GATE learners, to avoid their discrimination in formal schools;
- Work closely with provincial governments to tie in their work with the girls' education agenda, to deliver advocacy and resources that will support girls to continue their education; and,
- Identify the factors that account for the lower rates of completion and transition in the lower-performing GATE programme districts.⁷¹

schools that receive GATE graduates – emphasizing that welcoming GATE learners will not negatively affect school performance;

Some of the minority group girls from the GATE programme faced discrimination from other students and teachers in the formal education sector; providing inclusivity training and appointing Gender Equity and Inclusivity Officers in schools would help to alleviate this problem. Ensuring additional financial support for girls who continue with their formal studies would help to prevent dropout, as several girls mentioned that their families had found it difficult to pay for school fees, uniforms, shoes and supplies.

Adapting timeframes and demands to the needs of out-of-school or at-risk adolescents

Adapting schooling schedules as well as the timeframe of courses, offering flexible class hours, and minimizing homework and traditional examinations, are suitable means to facilitate enrolment and foster academic success. With specific regard to girls' secondary school attendance, offering flexible timelines and schedules compatible with work responsibilities and caregiving increase the completion rates for young women. Box 5, below, illustrates an alternative learning system in the Philippines that provides students with a practical option for accessing the existing formal system using non-formal means of delivery.

Box 5: Non-formal primary and lower-secondary education for disadvantaged young people in the Philippines

The Alternative Learning System (ALS) in the Philippines is a parallel learning system that provides a practical alternative to the existing formal instruction. The programme targets people who cannot access (or have not accessed) formal education in schools, such as out-of-school youth, industry workers, people with disabilities, members of cultural minorities and ex-inmates. The programme includes vocational skills or academic knowledge and literacy and numeracy and transferable skills, and leads to elementary and high school diplomas. ALS only requires learners to attend learning sessions based on the agreed schedule between the learners and the learning facilitators in local community centres or schools. The programme has two different schematics for conducting instruction: school-based and community-based. On the school-based programme, instruction is conducted on school campuses, while in the community-based programme, formal

instruction is conducted in community halls or private dwellings.

Delivery is provided by government-paid instructors, usually teachers or by certified trainers in private NGOs. The programme has two levels, elementary and secondary, and there is a separate livelihood and vocational skill stream. Depending on their skills and knowledge, participants start either from elementary level and then proceed to secondary school level, or start immediately at the secondary level. If a student is a graduate of elementary school under a formal classroom system, the student is automatically admitted to the secondary level depending on which year or level the student stopped schooling. Modules can be self-paced, with students able to take them home to complete if they have competing schedules. Overall the program is 800 hours though this varies depending on the progress of the students.

Source: United Nations Children's Fund USA, 'Nepal: Multiple Pathways to Learning', UNICEF USA website, n.d., <www.unicefusa.org/mission/protect/education/let-us-learn/nepal-multiple-pathways-learning>, accessed 20 August 2020

The requirements for TVET in Schools are different to school-run vocational education programmes, which are more concerned with exposing students to different vocational requirements; TVET in Schools therefore requires that the schools work more closely with industry or the chosen sector, and that they have access to the relevant equipment and machinery. Because TVET courses are generally more expensive than general education programmes – due to equipment and resource requirements – many schools enter partnerships with local TVET providers. The choice of which TVET programme to conduct should be based on information that is often available through the national TVET system, and is usually referred to as a labour market analysis of the skills and occupations that are in demand.

d. Eliminating gender equity and social inclusion barriers to accessing learning

Reaching out-of-school young people working in the informal sector. Around 40 per cent of secondary-school-age people in Bangladesh are out of school, and highly vulnerable to child marriage and child labour. Every year more than 2 million young people enter the workforce, 80 per cent of whom are employed in the informal sector, mostly as unskilled labourers. Through a partnership between the International Labour Organization and BRAC, the world's largest NGO (based in Bangladesh), an initiative was launched that provides vulnerable out-of-school young people with a six-month programme of on-the-job, theoretical and soft skills training which is nationally certified, along with job placements through informal apprenticeships. Over half of the participants are adolescent girls, and at least 10 per cent are young people with disabilities. Participation in the programme has had a significant positive impact on individual savings and household food consumption, as well as in delaying marriage. The programme has also helped challenge social norms related to the mobility of adolescent girls and gender bias in employment by encouraging engagement in non-conventional trades. To date, more than 95 per cent of learners have graduated and transitioned into paid employment.

Increased access to quality technical and vocational education and training (TVET)

Alternative Learning Pathways are intended to be high-quality alternatives to general education. In Sri Lanka, the Ministry of Education and the Ministry of Youth Affairs and Skill Development agreed to introduce a 'TVET in Schools' pathway, whereby students could undertake their General Certificate of Education while combining general education subjects with a technology stream. Successful graduates receive their General Certificate of Education and a National Vocational Qualification, both of which are recognized by universities. The Ministry of Youth Affairs and Skill Development makes facilities available at technical colleges for the practical training component and provides technical college instructors to schools in support of the

programme. Because students receive two recognized certificates, enrolments are high. The partnership between the two ministries benefits not only the students but the ministries as well. Positive outcomes for secondary schools include more students continuing with further education, and low dropout rates due to students entering TVET programmes with a strong prior foundation in vocational skills, as well as familiarity with the TVET institutions where they undertook their practical skills development during the programme.⁷²

Secondary schools will often introduce TVET in Schools in response to student and parent demand. Quality TVET requires close cooperation with industry for formal workplace training, developing workplace-relevant skills and ensuring that the content is focused on the workplace and occupation.



Support the strengthening of inclusive data systems (including those used by social services, education authorities or social protection providers as appropriate) that are better able to track learning outcomes, together with access to education and dropouts and absenteeism, in both formal and non-formal education settings. Such data is required to inform targeted interventions, as well as tracking the labour market outcomes for graduates after the completion of education and training. Where possible, such data systems should include disaggregated data based on sex, age, ability status, geographic location, language, ethnicity, and any other relevant factor given the specific context.

Providing marginalized young people, including those on the move or in humanitarian settings, with foundational skills (in particular, basic numeracy and literacy), and measure their progress. With 4 million refugees, predominantly Syrians fleeing the civil war, Turkey hosts the largest refugee population in the world. This group includes 1.6 million Syrian youth, of which only 600,000 are in school, the remainder being particularly vulnerable to discrimination, child labour and early marriage. Turkey's educational response

takes a multi-track approach to address the needs of out-of-school youth, while also investing in improved school access, dropout prevention, and the inclusion of refugee youth into the formal education system. With the Ministry of National Education and other partners, UNICEF Turkey provides a range of non-formal education programmes for out-of-school refugee young people, reaching 65,000 beneficiaries in 2018, and catering to range of different educational needs.

Embedding gender-equitable and inclusive teaching and learning practices within the education system by supporting governments, schools and communities to remove gender and minority stereotypes in teaching and learning materials, and supporting teachers to develop inclusive pedagogy.

Supporting the development of curricula, and pre-service and in-service teacher training, that are gender-responsive and inclusive, where teachers are supported in developing the skills and attitudes to enable girls and boys from all backgrounds (including those on the move or in humanitarian settings) and young people with disabilities to participate equally in the classroom.

Development of Gender Equity and Social Inclusion officers or teams within schools to promote sensitization, support individuals, and develop preventative measures at the local level.

Develop recognized portable certifications. To facilitate a smooth transition into new educational pathways or for work purposes, migrant workers and refugees need a mechanism whereby their schooling and skills can be recognized, such as digital certifications and identified recognition processes in national and regional qualifications frameworks.

Opening up access for girls and young women

The successful implementation of alternative learning pathways to further education and training requires government commitment to recognizing the legitimacy of these pathways. In Tanzania, the World Bank's Secondary Education Quality Improvement Program (SEQUIP), has secured government commitment to allowing all young people who take Form 4 or Form 6 examinations, regardless of which education institution they have attended, to continue their education in the public school or college system (see Box 6).

Through the SEQUIP project, two alternative learning pathways are provided for young women who have been expelled from school due to pregnancy to continue their education and take the same national examinations as students attending public secondary school. They can either enrol in private secondary school, or in Open Schools and Folk Development Colleges.⁷⁵ Open Schools teach the secondary school curriculum through face-to-face and self-study programmes at education centres, their teachers often being public secondary school teachers. The Folk Development Colleges are similar to Open Schools and are located mainly in peri-urban and semi-rural areas, and also provide residential programmes for young mothers, often offering daycare services for their young children.

Improving learning outcomes

The concepts and initiatives sketched above are unified by their focus on seeking improved learning outcomes. Such improvement requires an evidence base in order to be measured, and to this extent the development of processes to support evidence generation, innovation and advocacy also increase the quality of learning outcomes. The following paragraphs review some priorities in this area, while Box 7 describes the specific case of using digital technology to improve learning outcomes.

- Support research and evidence generation on learning at secondary-age level, both among teachers to advance their practice, and students to progress their learning.
- Encourage research and evidence generation on effective alternative education pathways and non-formal education programmes.
- Design and implement scalable pilots for (i) innovations in formal secondary education programmes and their delivery; and (ii) ALPs and non-formal education programmes.
- Boost communication strategies to enhance stakeholder commitment to education and skills training for young people and young people, building on recent and on-going experience with Gen U and other key partners.
- Undertake tracer studies and monitor the employment or education status of individuals post course completion.

Box 7: Using digital technology to improve learning outcomes

Evidence is available on the positive impacts of digital learning solutions as a complementary approach to in-school instruction. The following are some snapshots:

Mindspark, in India, enabled one of the largest improvements in learning outcomes for Hindi and mathematics ever recorded, and in a very short time. Mindspark was especially effective for academically weaker students, who had the largest relative learning gains – a plus from an equity perspective. This suggests adaptive learning could be useful in situations where there is a mismatch between learning levels, age and pedagogies/curricula – such as rural areas and humanitarian situations.

Onebillion's literacy and numeracy apps, deployed through tablets in Malawi government primary schools, had significant positive effects on literacy, reading comprehension, number identification and pattern

completion. These effects were found equally for both boys and girls.

Motion Math improves students' fractions knowledge and attitudes. Motion Math intends to help young people strengthen their understanding of the relationship between the number line and fractions, proportions and percentages, and involves the 'player' physically tilting a mobile device (using the accelerometer) to direct a falling star to the correct place on the number line at the bottom of the screen. This US-based study, involving 122 fourth grade students (aged 9–10), found students' fractions test scores improved an average of 15 per cent over a one-week period, representing a significant increase compared to a control group. Students' self-efficacy for fractions, as well as their liking of fractions, each improved an average of 10 per cent.

Source: Mindspark, <www.povertyactionlab.org/evaluation/disrupting-education-experimental-evidence-technology-aided-instruction-india>; Onebillion, <www.imagineworldwide.org/wp-content/uploads/An-8-month-RTC-in-Malawi_Final-Report_Jan-2020.pdf>; Motion Math, Rikala, J., M. Vesisenaho and J. Mylläri, 'Actual and Potential Pedagogical Use of Tablets in Schools', Human Technology, vol. 9, no. 2 (2013), pp. 113–131

Box 6: Tanzania Secondary Education Quality Improvement Program (SEQUIP)

Of the 60,000 students who drop out of secondary school every year in Tanzania, 5,500 leave due to pregnancy. While there is no government policy that states that students who become pregnant must be expelled from public schools, most pregnant girls do drop out. The main goal of the World Bank SEQUIP project is to provide youth in Tanzania with better, safer and more accessible secondary education to help build the country's human capital. Specifically, the project will: (a) keep young people in school and help all

secondary school dropouts, including pregnant girls, pursue their secondary education; and (b) provide them with a path back into the formal public education system in the next cycle. Evidence shows that increasing access to secondary education, especially for girls, contributes to stronger economic growth, faster poverty reduction, lower fertility rates, and better youth health. In Tanzania, women who complete their secondary education start childbearing later and have fewer and healthier children.

Encouraging girls to stay in school longer by providing safe and good-quality secondary education is one of the most effective ways of reducing early marriage and pregnancy. In Tanzania, pregnancy rates for young women with no education are 52 per cent, versus only 10 per cent for young women with secondary or higher education. An improved education sector can drive increases in access, ensure that schools are safe with less risk of gender-based violence, and raise the quality of secondary education.

Source: World Bank, 'Tanzania Secondary Education Quality Improvement Program (SEQUIP)', factsheet, 31 March 2020, <www.worldbank.org/en/news/factsheet/2020/03/31/tanzania-secondary-education-quality-improvement-program-sequip>, accessed 20 August 2020





UNICEF's Global Framework on Skills proposes the following 10 key principles to improve learning outcomes in education and training.⁷⁴ Such education and training should be:

- Holistic, with a breadth of the essential and interrelated cognitive, social and emotional skills needed for young people to learn effectively, be successful in the world of work, be empowered, and fulfil their civic responsibilities;
- Understood within the lifelong learning cycle as a dynamic, progressive and cumulative process from early childhood through adolescence to adulthood;
- Inclusive, accessible and contextualized to all learners regardless of ability, ethnicity, linguistic, and social or economic status, including refugees, migrants and conflict-affected young people;
- Relevant, aligning both with national priorities, the labour market, and the needs of young people and communities while considering local culture and context;
- Evidence-based, using how young people learn and grow, lessons drawn from previous interventions about what works, and robust monitoring and evaluation, generating evidence to contribute to advancing the field;
- Based on youth participation, building their capacity for meaningful participation and including their voice in the design, implementation, assessment and governance of skills development;
- Responsive to emergencies, adopting a conflict-sensitive approach and recognizing the role of skills development in reducing the harmful effects of emergencies on young people's wellbeing and development, as well as its role in promoting more peaceful, stable societies and encouraging social cohesion, reconciliation and peacebuilding; and,
- Innovative, harnessing the power of different technologies and innovations to support improved access, delivery and monitoring of skills development programmes in an equitable manner.

e. Breakthroughs

Indicative Questions/Details	Theme and the Main Issue
How can we affordably connect all schools to the Internet?	Digital connectivity: Globally, 29 per cent of young people aged 15 to 24 worldwide – around 346 million – are not online. Young people in Africa are the least connected. Around 60 per cent of population aged 15–24 in Africa is not online, compared with 4 per cent of those in Europe. ⁷⁵ The growth of Internet access around the world has slowed dramatically over the past years. Without action, the digital revolution will remain a distant dream for billions of the poorest and most isolated populations. ⁷⁶ The gender digital divide is also growing. In least developed countries, between 2013 and 2017 the gender gap of Internet users increased from 29.9 to 32.9. ⁷⁷ In poor urban areas, men can outnumber women on the Internet as much as two to one. ⁷⁸
How can we harness data from labour markets to shorten the feedback loop between employers and education providers so that skills are aligned better with demand?	Responsiveness: Globally, an estimated 21.8 per cent of young people are neither in employment, education nor training (NEET). Young people are three times as likely as adults to be unemployed. ⁷⁹ There is strong evidence of a skills mismatch between young people and employers. Young people are not learning the skills they need to get jobs. Conversely, employers struggle to give clear signals to education providers about the skills they require. According to a recent study, between 75 million and 375 million workers (3 to 14 per cent of the global workforce) will need to switch occupational categories by 2030 if automation happens at a medium-to-rapid rate. ⁸⁰
What works to improve links between secondary schools and enterprises focused on skills for work?	Public-private partnerships (PPPs) are another means by which resources are mobilized and take many forms in TVET; they operate on a cost-sharing principle where private-sector resources, in the form of direct funding, in-kind support or direct provision, complement public funding of national skills development systems. Such PPPs can exist between secondary schools and employers but they rely on good institution-enterprise links and mutual trust. Promotion of an integrated 'Green Schools' programme brings together five overarching pillars: 1. solar energy, 2. green skills and curriculum, 3. young people empowerment on climate change, 4. digital connectivity and 5. disaster and climatic resilience.
How can we promote an integrated 'Green Schools' which bring together the 5 overarching pillars to create both a multiplier effect that is bigger than the sum of the parts as well as improved potential for programmatic sustainability?	Green economy: Today, one out of five upper- and lower-secondary schools worldwide is not electrified. Sub-Saharan Africa is the hardest hit: nearly 1 in 2 secondary schools in the region lacks electricity. ⁸¹ Educational facilities require energy for lighting, cooking, heating, cooling, water delivery and purification, as well as information and communication technology (ICT), including for disaster and medical emergencies. Evidence shows that young people's literacy levels tend to be lower in countries with electrification rates below 80 per cent. ⁸² Without a change in course, the expansion of the electricity grid will continue to be limited by infrastructure cost, low demand in rural areas, and a lack of political will. Promotion of an integrated 'Green Schools' programme brings together five overarching pillars: 1. solar energy, 2. green skills and curriculum, 3. young people empowerment on climate change, 4. digital connectivity and 5. disaster and climatic resilience.
How can new breakthroughs in personalized technology-supported learning (i.e. AI) be deployed to support remedial education for young people whose education has been disrupted by conflict, shock or migration?	Remedial Learning: There are 263 million school-aged young people out of school, 53 per cent of upper-secondary school age. ⁸³ In conflict or disaster-stricken countries, 3 in 10 young people are illiterate. This figure is triple the global rate. ⁸⁴ Weak learning outcomes for these students are often due to failure or inability to teach at the right level. This, in turn, demotivates those who fall behind their peers, and can result in dropout. Remedial learning is usually either not readily available or is too costly. Moreover, many of the existing programmes focus on the provision of hardware devices to educational facilities, without ensuring that teachers and students themselves fully utilize those tools. ⁸⁵
How can we expand access to remote learning and work opportunities for young people with limited local opportunities?	Remedial learning and work: Opportunities for learning and work have historically been a function of location. This is a critical constraint for young people living in areas with limited local economic opportunity. The majority of rural workers, especially young people aged 15 to 24, hold precarious and poorly remunerated jobs. For example, young people in rural areas are one third as likely to have contracted employment compared to their urban counterparts, and 40 per cent more likely to be in casual wage work without a contract. ⁸⁶
How can we leverage cognitive behavioural therapy for young people affected by conflict, and effectively combine it with other interventions to support improved learning?	Mental health: Globally, up to 20 per cent of young people aged 15 to 24 suffer from mental health conditions each year. This proportion is higher in areas of conflict or humanitarian disasters. Mental health issues have been attributed to young people dropping out of school, training and work. Mental health problems increase the likelihood of poverty, limit employment opportunities, and negatively impact work performance.

e. Breakthroughs

Indicative Questions/Details	Theme and the Main Issue
How can we utilize AI-based language translation to enable more young people to access resources for learning, skills development and employment?	Instant translation: There are more than 6,000 spoken languages in the world today. ⁸⁷ However, most learning, skills development and work opportunities are provided in only a small handful of languages. Language is a critical barrier for young people to gain the skills necessary for the future. For example, among the 12 most popular platforms that offer free online coding courses, only one offered its programme in a language other than English. ⁸⁸ It is important that there are greater links to the research of what works in a language that young people understand.
How can we make sure that the certifications young people receive are portable and recognized across national boundaries?	Portable certification: At present, there are approximately 232 million migrants around the world, representing 3.5 per cent of the global population. ⁸⁹ About 50 million of these migrants are young people; simultaneously, about one in eight migrants are between the age of 15 and 24. ⁹⁰ Their qualifications are not always recognized in the areas where they move. Additionally, prior job experience is often not recognized. This lack of portability makes it difficult for them to find adequate jobs in their new homes.
How can we use technology to enhance data collection and use new forms of data to better measure, quantify and understand young people's empowerment?	Data and measurement: There are no commonly agreed measures of young people empowerment and participation or on skills. For instance, while there are 230 indicators under the SDGs, none of them measures nor attempts to quantify young people's empowerment. ⁹¹ This undermines the credibility of investments aimed at raising empowerment as their efficacy cannot be prove.
How can innovative financing mechanisms unlock the potential of each of the other 'promising' ideas?	Innovative financing: The scale of the resources needed to address the needs of young people is considerable. Skills and livelihoods have historically received limited resources from global aid budgets. Governments have also underinvested in this area, at least in part due to a lack of clear leadership in many countries as to which part of government leads this agenda.



SECTION 3 CALL TO ACTION

a. Young people

Young people have a responsibility to represent their interests and make their voices heard through, for example, engagement in school councils, training and other school-based governance bodies. This includes holding schools and training institutes accountable to provide quality and relevant education and skills training.

b. Political leaders and policymakers

Political leaders and policymakers, including ministries of finance, planning and youth, should be both alarmed and motivated to act by the magnitude of the learning crisis. Moving forward requires support and investment in public and private education (formal and non-formal), together with proactive engagement by businesses, to bring about a dramatic transformation in the skills landscape for the next generation and ease school-to-work transitions for the most marginalized young people. This will need political leaders and policymakers to:

Include the development of quality and relevant secondary education and skills-training systems in costed education-sector plans with clear performance indicators and targets. This must include a review of curriculum, assessment and teacher training. Building the capacity of what teachers know, how they teach, and how they are supported in the classroom, is critical for encouraging young people's retention in education and improving their levels of learning.

- Increase funding for formal and non-formal education and skills-training opportunities for all young people, including through ALPs. This needs to include earmarked funding for young people who are out of school, and funding of approaches and innovations that have been shown to demonstrate impact and scalability.
- Promote public-private partnerships to encourage the development of high-quality and relevant secondary

education and TVET systems which ensure young people transition to further education and/or the world of work with strong foundational, transferable and job-specific skills. This may also be a way of reducing cost barriers to learning and skills development for marginalized young people.

- Create a regulatory framework to certify learning across multiple pathways and to promote the idea of anytime, anyplace learning and skills development, especially for the most marginalized. This will enable young people to develop the skills they need to succeed, at a time and in a place that suits their individual circumstances, including with the use of digital technology and community-based approaches. Policymakers also need to ensure that there are clear communication channels around the validity of multiple pathways so that young people and their families can make informed choices about which pathway(s) might be most suitable.

c. Business leaders

Business leaders need to:

- Initiate next-generation partnerships with schools to ensure education and skills training (including in TVET) is relevant and prepares young people to make the transition to further education and/or the world of work. This requires a better alignment of education and training systems with labour market needs and with the aspirations of young people transitioning from school to work. This could be through a range of activities including representation on school governance boards; creating and offering paid training opportunities to young people including apprenticeships and internships; and regular interactions with teachers and schools to ensure they are up to date with industry trends.
- Partner with policymakers to help shape the content of curriculum reform and ensure there is a better match in education and skills provision with the needs of the labour market.

- Represent the current and future needs of businesses in local education and skills-training system groups and coordination bodies at national, sub-national and sector level, in order to advocate for any reforms that are required to produce a better skilled and qualified future workforce.
- Invest in transferable skills-development opportunities for young people including through internships, apprenticeships and work-based learning (see also Theme 2) to complement school or TVET-based study.

d. Social partners

Social partners need to:

- Advocate for the education and skills-training system to produce a better skilled and qualified workforce. This can be through representation in education and skills-training system groups and coordination bodies at national, sub-national and sector level as well as through campaigning. It may also involve social partners in the design, implementation and monitoring of education and training policies and programmes with a view to improving their responsiveness to the world of work.
- Encourage businesses and enterprises to provide skills development and training opportunities for young people through internships, apprenticeships and work-based learning.
- Raise awareness among young people, especially the most marginalized, about labour rights, including terms and conditions so that young people are prepared for the transition from school to the world of work and are not subject to abuse.

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