

Resilience: A New Youth Skill for the Fourth Industrial Revolution

A Global Business Coalition for Education Report July 2020







Contents

The Global Business Coalition for Education is a movement of businesses dedicated to ending the global education crisis. Theirworld established the Global Business Coalition for Education in 2012 upon recognition that the business community was an important constituency with the potential to more proactively support global education in a sustainable and scalable manner.

Today, GBC-Education has become one of the most effective forums for connecting businesses that aim to make an impact on the lives of young people. With a network of more than 150 influential private sector companies committed to best practice in supporting education and United Nations Sustainable Development Goal 4.

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Foreword Introduction

Young people's vulr

The value of youth

Youth resilience as

Recommendations

Conclusion

References

	5
	7
nerability to crisis	11
resilience	15
a standalone skill for the 4IR	19
on building youth resilience	25
	33
	35





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When the Global Business Coalition for Education published its landmark youth skills report in 2018, Preparing tomorrow's workforce for the Fourth Industrial Revolution, we anticipated an uncertain future. We anticipated that young people would need to develop a different skill set than previous generations to thrive in the future of work. We did not expect a global pandemic would fundamentally alter the future for young people and their employment opportunities.

During the past several months, several hundred million jobs have been lost. Some will never return, and new jobs - previously unknown will be created. The impact on young people entering the workforce will be tremendous, especially as youth are already three-times more likely to be unemployed than adults and three-quarters of young people work in the informal economy.

Covid-19 has been a disruptor, accelerating change and exacerbating existing inequalities that young people face. The pandemic has highlighted one skill that will help young people in this uncertain future: resilience.

Cultivating resilience as a skill is not just a subject to be taught but also a skill to be acquired and developed by young people through their experiences in formal education, extracurricular activities, community engagement, and through their employers and employment.

This report outlines what resilience is and its importance for economies, workforces, and communities. It provides recommendations for how employers and other stakeholders can work together to build a resilient generation of young people with the skills to adapt to change and contribute to their societies.



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Introduction

The future of work is uncertain. The Fourth Industrial Revolution (4IR) is set to fundamentally transform the way modern societies are organized, and technological advances - especially in artificial intelligence and automation — may lead to serious job displacement and skills shortages. It is estimated that by 2030, more than half of the world's 1.6 billion youth will not have the necessary skills or qualifications to participate in the global workforce.¹ If youth are not able to adapt to the 4IR, the consequences will be dire not only for them as individuals but also their families, their communities, and wider society.

In 2018, Deloitte Global and the Global Business Coalition for Education published a joint report *Preparing tomorrow's workforce for the Fourth* Industrial Revolution, which explored concrete ways that businesses can help youth prepare for the future of work. It highlighted four categories of youth skills necessary to compete in the 4IR:

- Soft Skills: Personal attributes, social skills, and communication abilities that support interpersonal relationships and interactions
- specialized tasks

• Workforce Readiness: Foundational to individuals' entry and success in the workplace, ranging from initial job search to maintaining continuous employment

Technical Skills: Knowledge and capabilities to perform

Entrepreneurship: Knowledge and abilities that help create and build a workplace opportunity or idea

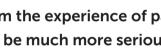
The world has fundamentally changed in 2020. In just over six months, the Covid-19 pandemic has produced the most serious global crisis since World War II. By April 2020, the International Labour Organization (ILO) estimated that the equivalent of 305 million full-time jobs had been lost.² Nearly half of the global workforce - the 1.5 billion workers in the informal and gig economy - now find themselves in extreme precarity, having little access to basic social protection and safety nets.³ School and college closures around the world have affected more than 1.5 billion learners, with potential losses of more than a full year's worth of learning.⁴ The full economic and social costs from public health measures such as movement restrictions, border closures, and shelterat-home orders, will not be known for many years, but initial estimates already predict an economic decline that will rival the Great Depression.⁵

It has also become clear that Covid-19 is no great equalizer. The impact of the pandemic is, and will be, much more acute for marginalized groups and communities. It is important to remember that Covid-19 is unfolding alongside other ongoing visible and 'invisible' crises, barriers, and shocks impacting young people and commerce all around the world, including natural disasters, infectious diseases such as Ebola and measles, and refugee crises. Travel restrictions and disruptions to global supply chains have meanwhile made it extremely difficult for health and humanitarian workers to respond to emergencies.⁶

The overall consequence for the developing world is likely to be very

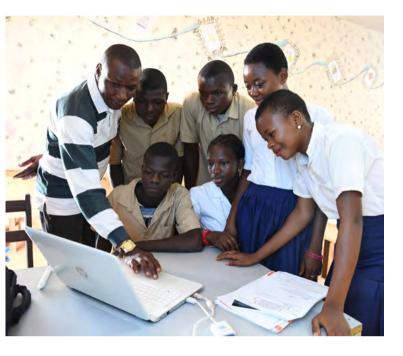
severe. Already it is suggested that all progress in poverty reduction since the launch of the Sustainable Development Goals in 2015 has been lost.⁷ Moreover, the pandemic also intersects with other endemic structures of inequality and oppression including systemic racism, patriarchy, wealth disparity, and discrimination against people with disabilities, among other forms. For example, in the U.S., the Covid-19 mortality rate for Black Americans is more than double that of any other racial and ethnic groups.⁸ Women will also bear a greater burden than men as many of them are in the employment sectors worst affected, such as hospitality and retail, while also having to deal with increased domestic responsibilities and incidences of domestic violence.9

We therefore need a fifth category of youth skills for the 4IR: resilience.



From the experience of past crises, the impact on youth of Covid-19 will be much more serious than on adults, with persistent and sometimes permanent damage to their future earnings and guality of life.¹⁰ The World Bank estimates that without remedial action when students return to school, this cohort of students could face \$10 trillion in lost earnings over time.¹¹ Young people therefore now confront a future more uncertain than ever before. It is possible that Covid-19 will hasten the pace of automation before youth can adequately prepare for it.¹² The pandemic has reminded the world how suddenly a crisis can appear, and that it is impossible to prepare fully for every emergency. Living and thriving in such a future will require a greater preparedness and adaptability to a variety of crisis situations.

We therefore need a fifth category of youth skills for the 4IR: resilience. This will encompass the abilities, knowledge and attitudes that will enable youth to not only bounce back from adversity but to 'bounce forward' towards a better future. With need heightened by Covid-19 and preexisting crises, resilience will bring great benefits to youth, the businesses they work for, the communities they live in, and their national economies. Cultivating youth resilience is a crucial task.





Young people's vulnerability to crisis

Even before Covid-19 hit, there were 621 million young people (age 15 to 24) worldwide not in education, employment, or training, with young girls and women making up the majority.¹³ Youth are three times more likely to be unemployed than adults, and 77 per cent of the global youth population work only in the informal economy.¹⁴ The recession caused by the coronavirus pandemic will only aggravate these vulnerabilities. Many of the jobs that will be most affected by the pandemic are predominantly occupied by youth workers.¹⁵ Young people also tend to be the first to let go from jobs, and with fewer assets, networks, and experience, they can face more difficulty in coping with a crisis and finding employment again.¹⁶

In addition, school closures mean a significant loss in learning and motivation. A study on the impact of a three-month school closure after the 2005 earthquake in Pakistan found that even four years later students were 1½ years behind in their learning.¹⁷ Initial estimates of the consequences of Covid-19 on education suggest that without any special measures, students could lose more than a full year's worth of learning.¹⁸ Moreover, for many students, schools are a critical source of nutrition and health support, as well as being safe spaces for girls and other marginalized youth.

The loss of learning and social disruption can be debilitating and may lead to future loss of economic productivity, rising crime, poorer health, and other instabilities.¹⁹ Previous crises have shown that such impacts tend to be much more serious on youth than on adults. An analysis of disaster studies from 1981–2001 found that 62 per cent of youth were severely impaired by the incident, compared to 39 per cent of adult survivors.²⁰ Likewise, a review of financial crises from 1980–2009 found that 15- to 24-year-olds tended to be more affected than older age groups.²¹

The effects are worse for young women, the less educated, and ethnic minority youth.²² After the 2008 global financial crisis, youth unemployment increased from 73 to 81 million globally. Those who eventually found a job often face sustained losses in future earnings, as well as losses in productivity from being mismatched with employers. For school students, a crisis may force them to drop out from school or turn down the chance of further education, leading to lack of higher skills and preparedness for the workplace of the future. Moreover, when government capacity to respond is weakened, youth often bear a greater burden of public service cuts, such as the increased user fees and informal taxation laid on Sierra Leoneans during the Ebola crisis.²³

A recent survey of youth in the EU found that during the pandemic, young people were struggling much more than adults as they reported lower mental well-being, higher sense of loneliness, and greater insecurity about their future. This is a reverse of the pre-crisis situation when youth had a higher sense of well-being compared to adults. Notably, 26 percent agreed with the statement, 'When things go wrong in my life, it generally takes me a long time to get back to normal.²⁴ This shows that many youth feel insufficiently prepared and resilient enough to bounce back from crises, which has concerning implications for their general ability to thrive in the 4IR.

Beyond the initial shocks

A crisis is never just about the direct hit of the shock. A hurricane can mean immediate loss of shelter, food, water, and sanitation, as well as long-term consequences such as increased family stress resulting in domestic violence, school drop-out and participation in the precarious informal economy. These all further reduce the likelihood of access to resources that can allow a household to bounce back. These stressors can accumulate and lead to a general difficulty with adapting.^{25, 26, 27}

Youth are particularly vulnerable given that they are going through a sensitive developmental stage. Adolescence is a critical phase of identity formation. Young people tend to desire opportunity and purpose, both of which are disrupted in crisis situations.²⁸ Neurobiological changes at this stage can mean they are more prone to more risky behavior, turbulent emotional responses, anxiety and depression.

In most sociocultural contexts, youth have to confront significant social milestones such as graduation, joining the workforce, marriage, voting, and exposure to toxic substances and alcohol.²⁹

In a crisis or moments of instability, youth face disruption in all these areas. They can experience less autonomy, especially if they become more financially dependent on parents or relatives. When households suddenly fall into poverty, youth may also be extra-sensitive to the stigma it brings and develop lower self-esteem.³⁰ Changes in the labor market can also interfere with the development of positive aspirations, vocational identity, and a sense of belonging within a society. Some youth become 'permanently discouraged workers' and avoid entering the workforce.³¹ Others experience a permanent 'scarring' that results in lower productivity.^{32, 33}

Even prior to the Covid-19 crisis, youth were already at major risk of being left behind in skills development for the 4IR. They may have studied for jobs that were becoming obsolete or in less demand. For those just entering the workforce, the transition to virtual work can mean missing out on opportunities to network and build relationships with colleagues, adequate training and early professional development. Less resilient youth who cannot adapt to changing working conditions will fall behind in acquiring the critical skills for the future of work. The cost of not preparing youth to address challenges and setbacks is therefore high.

Young people bring numerous strengths to the table. They are flexible, creative and connected.

The value of youth resilience

During the Covid-19 pandemic, we have already seen youth all over the world stepping up to help their communities. From the Mathare slum of Nairobi, to South Sudan to the United States, there are examples of how youth have displayed resilience to help their communities: ^{38, 39, 40}

- organizing mutual aid groups
- line workers

Young people do however naturally bring numerous strengths to the table, whether in a crisis situation or not. They are flexible, creative, and socially connected. Many are 'digital natives' and like to experiment with innovative solutions. Youth can act as a connecting point, helping influence the awareness and behavior of various social groups, such as their family, school and friends, or neighborhood or religious group.

For example, when the Ebola crisis broke out in Sierra Leone, government-led awareness campaigns were ineffective in changing people's behavior. It was youth who stepped in to engage local communities and push for more effective public health practices.³⁴ Research in many contexts has consistently found that youth have the ability, knowledge, skills, and initiative to make positive, meaningful contributions to their communities.^{35, 36} The active participation of young people in community responses has also been shown to predict the resilience of both individual youth and their communities.³⁷

delivering groceries and supplies to the elderly

organizing mask and hand sanitizer distribution campaigns; delivering personal protective equipment (PPE) to front-

using 3-D printers to produce face shields and other PPE

- coordinating with local governments and donors to build handwashing sites in slums
- helping local women produce face masks as a way to sustain livelihoods
- organizing social media and public awareness campaigns
- working with local public health non-profits to establish a drive-in testing center with free Covid-19 tests

Countless other examples exist all over the world. What we need to do is to ensure they have the ongoing support and resources to thrive in the post-pandemic future.

The benefits of preparing youth are high. Resilient youth contribute to resilient workplaces as workers, consumers, and eventually leaders. As the adults of tomorrow, they can produce a virtuous cycle of positive environments and outcomes for their future children, family, and communities.

Having workers who are healthy, flexible and resourceful will be of great benefit to businesses going through crises in the future. They will help reduce job turnover, demotivation, and loss in productivity, and can also contribute to problem-solving, making connections to new markets and opportunities, and embracing new technologies to address challenges.^{41, 42} Even in normal circumstances, setbacks and failures are part and parcel of working life, and knowing how to deal with them is key. Characteristics of resilient youth, like the ability to cope with stress and pressure or knowing how to rebound from disappointments, will be of great value to any business as they adapt to the demands of the future.



Resilient youth contribute to resilient workplaces as workers, consumers, and eventually leaders.



Youth resilience as a standalone skill for the 4IR

Simply defined, resilience is the capacity to bounce back from adversities. This report is mainly about resilience at the individual level, but this is inseparable from resilience at the family, community, national, and global levels. In fact, the concept of resilience is more often used to discuss systems' responses. One definition is that 'resilience can be broadly defined as the capacity of a dynamic system to adapt successfully to disturbances that threaten system function, viability, or development.'⁴³

The idea of resilience is moving from 'bouncing back' to 'bouncing forward' towards transformative change.

This has included the idea of resilience moving beyond 'bouncing back' to normalcy; rather, it is about 'bouncing forward' toward transformative change.⁴⁵

The current literature recognizes that resilience cannot be accumulated at the individual level alone. Rather, it is a product of complex interactions between individuals' attributes and decision-making within their environmental circumstances.^{46, 47, 48, 49} To be able to adapt to adversities, in addition to personal skills, knowledge and attitudes, youth will also need protective and nurturing social systems. These systems can be supported by families, schools, communities, and employers.

Early research focused on the capacity of ecological systems to absorb and adapt to changes that pose those kind of threats. Insights from this area of research have shifted policy-makers' attention towards an approach where disasters are seen not as chaos but as moments with the potential to strengthen communities.⁴⁴

Elements of the fifth category of youth resilience Figure 1

Sense of mastery, competence and self-efficacy

Growth mindset, optimism, ability to find meaning in life, motivation, positive selfconcept, goal-settings, achievement orientation

Self-regulation skills

Ability to express and regulate emotions, stress management, empathy, mindfulness and relaxation skills

Ability to cultivate social relationships and support networks

Able to identify support networks and role models, able to seek appropriate help, social-emotional learning, interpersonal & communication skills, empathy, sense of belonging to a community

Problem-solving skills

Improvisation, flexibility, creativity, resourcefulness, conflict resolution skills, good decision-making under pressure, ability to create backup plans

Cognitive abilities and knowledge

Systems thinking, critical thinking, digital and social literacies, disaster preparedness, knowledge of responses to specific risks

Character traits, moral values

Courage, humility, grit, persistence, sense of responsibility to whole community

There is no single, definitive list of resilient qualities.^{50, 51} However, common resilience factors that have been identified are shown in the figure opposite.^{52, 53} Skills preparation for youth resilience should feed all these elements (Figure 1).

When employers invest in developing resilience skills in their young employees, they are increase the general preparedness of the entire business.

At different points of a crisis, varying skills, attitudes, and knowledge that young people possess will come to the forefront. For example, during the preparedness phase, youth will need to acquire digital literacy and the ability to search for good information, social skills to develop a personal support network, and general emergency preparedness (how to put out fire, how to administer first aid, find out kinds of hazards possible in local area, etc.). During the emergency response, basic survival skills, rapid problemsolving and decision-making, improvisation, stress management and mindfulness, and the ability to connect with local support will be important. During **recovery**, youth will need to have the ability to set goals and plans, demonstrate a growth mindset, draw on support networks to find employment, etc.

When employers invest in developing resilience skills in their young employees, they increase the general preparedness of the entire business. They can be confident that if a crisis hits, young employees equipped with resilience skills will be capable of implementing operational plans to maintain continuity, making good decisions under pressure, connecting with new business partners and resources, and thinking of innovative solutions. Resilient youth can also be a critical driving force of business recovery post-crisis, as they will have more capacity and energy to experiment with new tools, workflows, and partners.

Youth resilience as a standalone skill for the 4IR

Equity considerations for youth resilience

Youth are not equally vulnerable in times of crisis. A young person living in a developed country, from a high socioeconomic status background with supportive family and friends, will find it much easier to overcome adversities.⁵⁴ Poorer individuals and households will evidently be affected much more than the wealthy who have the resources and assets to stock up on food, work from home, and put distance between themselves and others.^{55, 56} Many youth employed in jobs requiring face-to-face interaction or close proximity to others will continue to have to put themselves and their family members in danger in order to survive. In the context of Covid-19, many young people will be more harmed by hunger than the actual coronavirus.57

Policy responses to crisis can also have built-in inequities. Stay-at-home orders are only a protective measure if home is a safe shelter. For many girls and women around the world, this is not the case, as evidenced by a nearly 30 per cent increase in domestic violence since the start of the pandemic.⁵⁸ We know that girls and young women are consistently more vulnerable in crisis-affected settings. They tend to be employed in sectors more exposed to informality; they are additionally burdened by unpaid care responsibilities; they are highly vulnerable to domestic violence, early marriage, and teen pregnancies.⁵⁹ Girls in crisis-affected settings are half as likely to make it to secondary school compared to the global average.⁶⁰

As schools have been closed in most parts of the world, many education systems have chosen to move instruction online. This has revealed the depth of the digital divide, even in developed countries. Makeshift education responses can also leave many at-risk youth falling through the cracks. For example, any new plans may not provide youth with disabilities with the support they need, reflecting a general tendency to overlook the specific needs of people with disabilities in emergencies.⁶¹ In addition, many young people will experience a loss of learning, higher risk of dropout, and take longer to graduate.

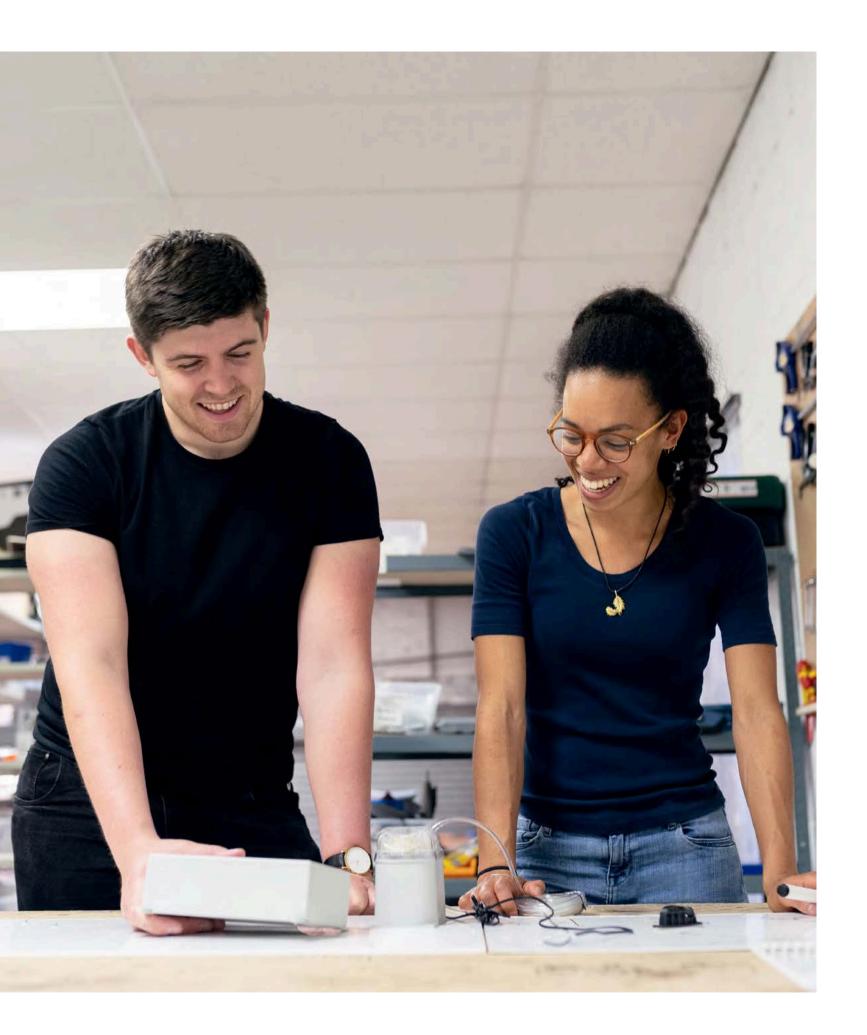
The Covid-19 pandemic is exacerbating fragile security situations in some parts of the world. In Burkina Faso, terrorist and insurgent groups have taken the opportunity provided by the pandemic to extend their reach around the country. This has led to more than 760,000 people being displaced.⁶² Globally, the toll on refugees and asylum-seekers has been high, with lockdowns affecting access to water, sanitation, and health facilities in refugee camps, and refugee resettlement schemes suspended in places.63

Cultivating resilience skills and attitudes in youth, especially those from historically marginalized backgrounds, can help mitigate the disproportionate impact of crises. Many of these skills are already part of the 'hidden curriculum' in and outside school for young people from privileged upbringings. Making them explicit and a core component of education, training, and workforce development would help marginalized youth not to fall further behind. Young people growing up in poverty often have a lower sense of self-efficacy. Resilience training can help them develop more positive self-identities, recognize their own strengths, and leverage these strengths toward a better future.

Even when equipped with all the right skills, youth cannot develop resilience if they cannot access the resources required to support them.

Youth resilience as a standalone skill for the 4IR

It is important not to put the burden for resilience solely on individual young persons. Even when equipped with all the right skills, youth cannot develop resilience if they cannot access the resources required to support them. For example, essential social protection measures in times of crisis (e.g. cash transfers, unemployment benefits) are often inaccessible to young people because they have not worked long enough. There is a crucial need for support and investment from governments at all levels and the business community to help youth 'bounce forward' from adversities. Any attempts to design crisis response policies must consider the diverse needs and vulnerabilities of different social groups.



Recommendations on building youth resilience

Education and training systems

Education and training systems play a fundamental role in cultivating resilience from an early age, with the social-emotional skills acquired in early childhood education providing a vital foundation. Schools are where children and youth learn essential literacy skills and knowledge, the ability to learn from failure, and how to collaborate with others. Moreover, for young people who have experienced trauma, being in a supportive learning environment can help them regain a sense of normalcy and hope for a better future.

Given that youth resilience includes many skills long recognized as important, youth already have many opportunities to access resiliencebuilding activities in and out of schools. Many curricula already weave in social skills, literacy, critical thinking, problem-solving, and the ability to learn from failure. Extracurricular programs can also help youth gain resilience. For example, adventure programs have been linked to increased perseverance, self-awareness, confidence, and responsibility to others.⁶⁴ However, because these activities rarely use the explicit label of 'resilience', it can be difficult for youth to recognize the transferability of these attributes.

Existing programs in schools that are explicitly focused on resilience tend to be designed for at-risk youth, with many focusing on mental health but also those affected by violence, abuse, drugs, crime, and conflict.⁶⁵ Only recently has there been interest in expanding resilience programs to youth in general, with rising interest in positive psychology and positive development approaches. This provides promising opportunities to develop a holistic resilience education, especially in connection to workforce development in response to the 4IR.

Partnering with schools: The role of local government and the business community

Growing evidence suggests that the most effective resilience training for youth moves beyond the school walls. While many projects still focus on specific skills such as stress management, there is an increasing shift toward a whole-community, holistic, positive youth development approach that entail meaningful youth engagement.⁶⁶ This means going beyond mere skills- and knowledge-building to provide youth with the opportunities to engage in community decision-making in real world situations. Skills-building without opportunities to apply them can be counter-productive and frustrating.⁶⁷

This is where local government and the business community can step

in as partners. Local government can support schools with projectbased learning that solves actual problems in the community. They can invest in civic engagement initiatives for young people, such as inviting youth representatives to serve on committees, dialogue groups, and action research groups. They can also partner with youth-led community organizations to encourage passionate, innovative, and resilient youths. Likewise, the business community can join these resilience initiatives, serving as clients for youth consultancy and action research projects, providing internships and externships to young people, and participating in mentorship programs, especially for marginalized youth. Business can also partner with employment and workforce development programs to help youth find jobs again after a crisis.

Schools, local government, and businesses therefore all have important roles to play in building these skills to improve the link between education and employment and to mitigate the consequences of future crises.

Guiding principles for each sector to build youth resilience:



Educational systems & youth organizations

- communities
- increase self-confidence
- stakeholders to collaborate with

Adopt a holistic vision for resilient education and integrate the vision throughout the curriculum and other programming

Include more emphasis on character education to teach traits like courage, grit, perseverance, hopefulness, and humility, rather than just technical knowledge

Use arts and play as channels for coping and healing

Introduce more experiential programs that take place in local

Encourage peer mentoring and peer-to-peer interactions which can help youth develop larger support networks and

Provide training on basic psychosocial support techniques to teachers, administrators, and others who interact with youth; support teacher and staff well-being

Prepare learning plans for crisis scenarios that identify key

In emergency and post-emergency contexts, ensure a safe, and supportive learning experience in accordance with the INEE Minimum Standards for Education



Government - particularly local

- Resilience planning that meaningfully involves youth, not just by listening to but including them in decision-making and activities
- Engage youth volunteers as frontline responders in crises, who can help raise awareness among families and communities, collect data for needs assessments, and connect people with critical resources
- Collect data on community-level youth risks, strengths, and assets. Ensure data is disaggregated as much as possible to capture information about gender, location, disability, ethnicity, language, etc.
- Build mechanisms for bringing community stakeholders together, particularly youth, such as regular and accessible town hall meetings, community service projects, social campaigns, etc.
- Create disaster preparedness and community resilience plans that are multi-sectoral and multi-stakeholder
- Invest in public infrastructure and social services, especially those that youth use frequently such as education, public transportation, and recreational spaces.



Business & industry

- in workforce training approaches
- collaboration, and inclusivity
- especially in times of crisis
- development

Engage in the strategies laid out in the *Preparing tomorrow's* workforce for the Fourth Industrial Revolution report: align stakeholders' objectives and approaches; engage in public policy; develop promising talent strategies; invest strategically

Cultivate a workplace culture of openness, flexibility,

Include young employees in decision-making, give them autonomy and cultivate trust, and leverage their abilities,

Introduce disaster preparedness and resilience planning and training for young employees as part of ongoing professional

Build connections with local communities and youth populations through apprenticeships, internships and externships, and mentorship programs

In times of crisis, ensure communications are transparent, support occupational health & safety, support government social protection measures (e.g. guaranteeing paid sick leave), look to temporary wage cuts rather than job cuts

During crisis and recovery, reintroduce as quickly as possible internships, apprenticeships, and mentorship opportunities for youth, in alternative forms of delivery if necessary

Examples of programs that demonstrate these principles

USAID's Climate Change Adaptation and Resilience project in Indonesia

Engages youth in climate and disaster education activities. It also builds leadership skills by involving youth in risk assessment and planning.⁶⁸

Participatory Approach for Safe Shelter Awareness (PASSA) Youth Program

A methodology developed by the International Federation of Red Cross and Red Crescent Societies. Used in over 30 countries, it teaches youth to use digital tools, multimedia resources, and data analysis to build and assess preparedness plans, negotiate with local authorities and community members, among other competences.⁶⁹

Resilient Livelihoods Project in St. Vincent and the Grenadines

This project provides disaster & risk reduction training to youth while providing them with the opportunity to work with public and private professionals on risk-mapping. The project also works with communities to place youth in apprenticeships that use the skills of disaster & risk reduction and climate change adaptation.⁷⁰

Girl Empower, Liberia

A girl-focused life skills intervention project in post-conflict regions conducted by the International Rescue Committee. It includes a life skills curriculum delivered in safe spaces by young female mentors, caregiver discussion groups, capacity building for local health and psychosocial service providers, and individual savings start-up for girls.⁷¹

Youth-Plan, Learn, Act, Now!

An action research program that has been running for nearly 20 years in the U.S. and around the world. It encourages youth to become involved in tackling challenges within their own communities, from housing displacement, poverty, gentrification, and transportation access, to climate change. It provides youth with the chance to take the initiative, design creative solutions, and collaborate with local authorities and leaders. Research has found that these engagement opportunities nurture their sense of purpose and self-efficacy.^{72, 73}

The Youth Leadership Program

Developed in New Orleans post-Hurricane Katrina, this program is run through a local high school and is designed to build community resilience by developing future leaders, improving mental well-being of youth, and drawing the youth population and their communities closer. Participants have weekly meetings focused on increasing self-efficacy, planning and decision-making skills, and mental health strategies. With support of the coordinators, the students themselves organized a summer summit that invited community leaders, including judges, doctors, artists, and business executives, to share their experience and leadership strategies.⁷⁴

Resilience Action Initiative's young professionals program

Young professionals working for Shell collaborated with peers from other multinational corporations, NGOs, and city governments to create new action-oriented projects to increase the resilience of their professional and residential communities. One example is a the 'edible wall' in schools in Rotterdam, the Netherlands to help children explore sustainable agriculture.⁷⁵



Conclusion

Building youth resilience is a necessary skill for the 4IR. The most promising initiatives to build resilience are explicitly designed to involve youth in meaningful collaboration with local community, government, and business partners, building mechanisms and opportunities for human relationships to thrive, and promoting local problem-solving and decision-making. Previous crises have shown that individuals and communities are best able to recover if there is a tight linkage between all parts of society. It helps if resilience-building is a sustained effort that is adaptive, and geared toward the long-term. Crisis responses should not be narrowed down to the mitigation of impact of this crisis through quick templates of action found elsewhere.

The shock of the **Covid-19 pandemic** highlights the need to bring resilience to the forefront of the youth skills agenda.

Clearly, there is a lot of overlap between youth resilience and the other four categories of youth skills: Workforce Readiness, Soft Skills, Technical Skills, and Entrepreneurship. Communication, adaptability, a growth mindset, empathy, creativity, and resourcefulness are critical skills that have been previously identified as part of the other categories. However, the shock of the Covid-19 pandemic highlights the need to bring resilience to the forefront of the youth skills agenda. Youth resilience will help to address the greater uncertainty of the future, and thus should be a fundamental part of preparing the future workforce for the 4IR.



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Students study together at a cafe

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