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International Centre for
Technical and Vocational
Education and Training



Technical and vocational education and training for disadvantaged youth

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Acronyms and abbreviations

CEDEFOP	European Centre for the Development of Vocational Training
GPI	Gender parity index
IAG	Information, advice and guidance
ICT	Information and communication technology
IGAD	Intergovernmental Authority on Development
ILO	International Labour Organization
NGO	Non-governmental organization
OER	Open educational resources
PPP	Public-private partnership
SDG	Sustainable Development Goals
SEND	Special educational needs and disabilities
SGBV	Sexual and gender-based violence
STEM	Science, technology, engineering and mathematics
TVET	Technical and vocational education and training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEVOC	UNESCO International Centre for Technical and Vocational Education and Training
UNHCR	United Nations High Commissioner for Refugees
WHO	World Health Organization

1. Introduction

Technical and vocational education and training (TVET) has been characterized (and indeed often looked down upon) as being for the more disadvantaged members of society. However, there is relatively little research and evidence about good practices that support access to, progression through, and learning, labour market and life outcomes from TVET for disadvantaged learners. Where policies and practices do exist, they have often been focused on single dimensions of disadvantage. The fact that large numbers of TVET learners may have multiple, intersectional experiences of disadvantage is frequently overlooked. Internationally, the issue of education and inclusion is a long-standing concern, but this debate has been highly concentrated in the school sector. For instance, a search of the main academic journals on educational inclusion shows little attention to TVET issues.

At the International Congress on Technical and Vocational Education and Training in 2012 in Shanghai, the United Nations Educational, Scientific and Cultural Organization (UNESCO) led the world TVET community to commit to making equity one of three principles for future TVET, alongside economic and environmental perspectives. This was subsequently reflected in UNESCO's Strategy for TVET (2016–2021), and in the work plan of the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training.

The Shanghai process was grounded in the core UNESCO concern of how to increase and improve access to learning, while also enhancing its quality. This clearly draws on the wider tradition of rights in development thinking and builds on the founding principles of the United Nations.

The process was based on three elements:

- » **Access:** how available are good quality TVET learning opportunities that are well adapted to the needs of a wide range of individuals and groups of users?
- » **Equity:** how can we make TVET opportunities fairer and more equal, particularly to improve the chances of disadvantaged groups such as those in low status work and with low levels of initial education, especially women?
- » **Inclusion:** how do we ensure that provision is non-discriminatory and engages with the diversity of needs of groups of learners?

While the equity pillar of UNESCO's TVET vision appears to be about the social aims of TVET, it is also engaged with economic aspects. It reflects TVET's mission to bring about better lives through supporting higher incomes, better work, and more sustainable livelihoods. Equally, it reinforces the sustainability pillar of UNESCO's vision through its support for skills development for just transitions.

UNESCO's approach to TVET and equity is grounded in a well-established right to education tradition, as reflected in the work of the first UN Special Rapporteur on the Right to Education, Katerina Tomaševski. There are complex issues surrounding the extent to which the right to education, grounded in the rights of the child, applies to TVET. However, Tomaševski's analytical framework is highly applicable to the sector and will be used extensively in this paper.

UNESCO's approach is also informed by the 1994 Salamanca Statement on Inclusion and work that has flowed from this, including the recent Global Education Monitoring Report on education and inclusion. As with Tomaševski's work, the task facing the TVET community is to apply a framework that was originally conceived for schooling.

The UNESCO TVET vision of equity is also drawn from a raft of international normative instruments that address gender issues in education, training and employment. These include many about women (e.g. the Convention on the Elimination of All Forms of Discrimination against Women, 1979), people living with disabilities (e.g. the Convention on the Rights of Persons with Disabilities, 2006) and refugees and migrants (e.g. the Convention Relating to the Status of Refugees, 1950).

UNESCO-UNEVOC's Medium-Term Strategy for 2021–2023 takes forward this longstanding commitment to TVET and equity through 'Inclusive TVET for migrants and disadvantaged youth', with a particular focus on girls among disadvantaged groups. This paper is intended to support the process by reviewing what is known from the grey and research literature and from UNEVOC Centres' experiences of promising practices in this area.

The study is guided by two main aims:

- » To understand barriers to the participation of disadvantaged youth in TVET
- » To examine available evidence on strategies and approaches that are being used or can be used to meet the needs of disadvantaged youth

The paper is divided into six chapters. The rest of this **first chapter** describes the methodology that was used to address the aims of the study. It includes the limitations, definitions of key terminology and a brief overview of data on school participation. **Chapter two** discusses how disadvantage is conceptualized in this study. **Chapter three** sets out Tomaševski's framework and how it can facilitate understanding of the strategies that are being used and can be adopted to meet the needs of disadvantaged youth. **Chapter four** focuses on the barriers to access and progression of disadvantaged youth in TVET. **Chapter five** presents some of the strategies that are being utilized and

can be selected to address the needs of disadvantaged youth. **Chapter six** concludes the paper with some thoughts about ways forward in an important but underdeveloped area of TVET research, policy, and practice.

Methodology

The study comprised a desk review of available literature and an online survey administered to UNEVOC Centres and members of the TVET Forum, UNESCO-UNEVOC's online discussion board. For the desk review, a scoping search was done by noting keywords that could be used to search for literature on the participation of disadvantaged youth in TVET. The disadvantaged groups that were identified for the search included refugees, internally displaced people, asylum seekers, people with special educational needs and disabilities (SEND), ethnic or racial minorities, rural youth, and poor youth. Then, an online database was searched for available literature on these youth, their needs, or barriers to participate in TVET, and strategies that are being used or could be used to address their needs.

Academic and non-academic databases were searched. Several academic databases were used, notably Google Scholar and the University of Nottingham's library search. A Google Search alert was created using the keywords, with a focus on recently published documents. Besides the academic database, the Google Search engine was used to obtain grey literature from the databases of international agencies and government departments. The scope of the search was not limited to a specific geographic location. This presented a challenge due to the availability of data on TVET participation at global level. The scope of the study was broad. However, case studies of practices and policies were selected from some countries for discussion, according to their accessibility and suitability in relation to the themes in the paper. Cases that address intersectional needs of disadvantaged youth were searched. They were difficult to find as most interventions, policies or strategies focus on one aspect of the needs of disadvantaged learners, such as finance or gender barriers. A further limitation was that time and resource constraints meant that the review had to be limited to outputs in the English language.

Survey design and responses

The survey had thirty-four questions combining binary yes/no responses, multiple choice and free text questions on TVET provision for four groups of disadvantaged youth: rural youth; young migrants, refugees, asylum seekers and other displaced youth; young people living in poverty; and young women. The questions broadly covered the following categories:

- » Institutional and national-level TVET policies on these categories of disadvantage
- » Institutional resources and support for teachers and learners in these categories of disadvantage

- » Partnerships with TVET institutions aimed at learners in these categories of disadvantage
- » Progression of learners in these categories from TVET into employment
- » Barriers to access, progression and success in TVET for learners in these categories

In total, the survey received sixty-five responses from forty-five countries, of which there were representatives from all five UNESCO regions¹ and fifty-one UNEVOC Centres (see Figure 1). The survey was designed around the expectation that respondents would hold a range of roles in TVET provision, from teachers, practitioners and managers within institutions to those working in national and government roles. The questions therefore aimed to capture respondents' awareness and experiences of the policies and issues from this broad range of professional perspectives. A strength of the survey is that it provides insights into current practices at localized institutional level and national levels.

There were three key limitations to the survey, which make it harder to draw conclusions from the data. However, they also highlight important areas for further consideration in the development of knowledge and practice around issues of youth disadvantage in TVET.

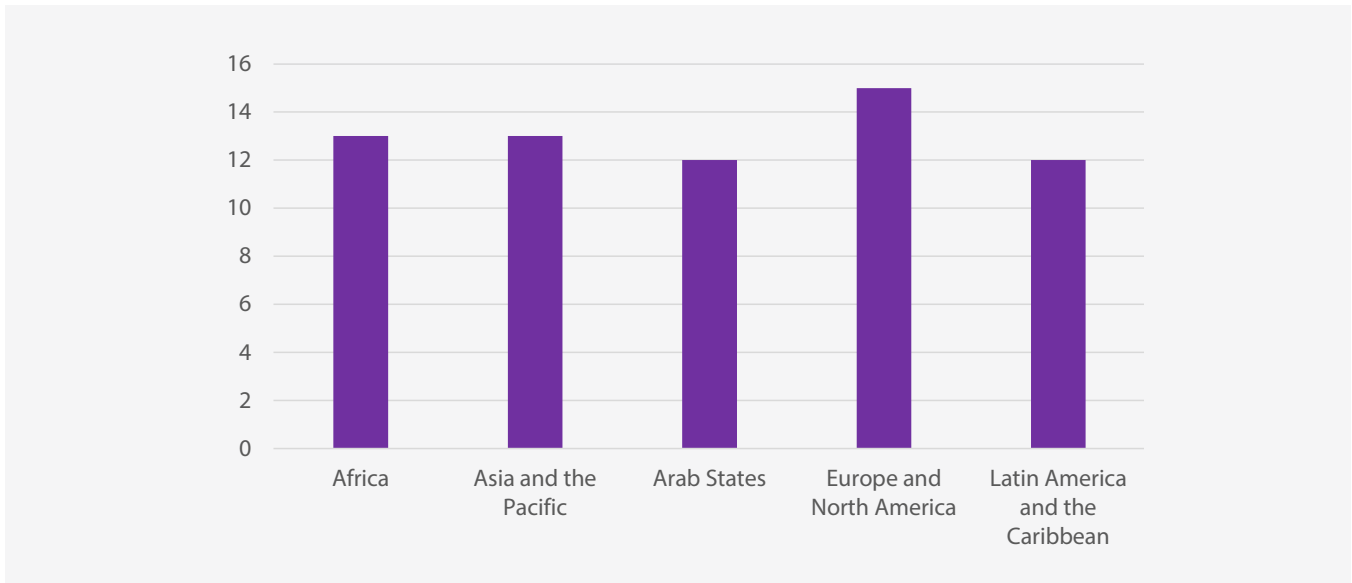
The first of these issues is the categorization of disadvantage. The five aforementioned categories each represent an important category in itself and collectively captures some intersectional overlap. The survey was designed carefully to offer opportunities to comment on each category of disadvantage and to highlight particular intersections. However, responses often referred to a more general category of 'disadvantaged learners'. Such responses make it difficult to gain insight on certain characteristics and demonstrate a tendency for discourse and policy on disadvantage in TVET to take a broad, non-specific approach to characterising disadvantage.

The second limitation of the survey was that the language of 'inclusion', which was used to ask questions about the resources and training available to teachers to develop inclusive practices in TVET, is open to multiple competing interpretations in educational spheres. Most respondents to the survey understood inclusion to refer to disability and special educational needs. This understanding led them to see the question as irrelevant to mainstream TVET institutions. Again, this aspect of the survey design is useful in that it points to organizational difficulties in communicating and therefore developing dialogue around issues of social exclusion and inclusion in TVET.

The third limitation of the survey was in the number and distribution of responses. While all regions were represented, there were some unrepresented areas such as the Pacific Islands. Some discrepancies were observed between countries with several respondents and therefore there were

¹ Africa; Asia and the Pacific; Arab States; Europe, Commonwealth of Independent States, and North America; and Latin America and the Caribbean

Figure 1 - Survey respondents by region



differences in national perspectives. Some countries only had a single respondent. This limits the possibilities of drawing clear national or international conclusions from the survey data.

The spread across the categories was relatively even in most regions (see Figure 2). However, government or national bodies were more highly represented in the Arab States region than in others, while TVET institutions were more highly represented in responses from Europe and North America. The category of 'TVET practitioner' was offered in the survey so that practitioners could respond without necessarily representing the views of their institutions. While it was important to include this option, the categories of TVET practitioner and TVET institution may have been understood differently by respondents.

Where respondents entered 'other', they were asked to define this. The 'other' category included, by region:

- » Africa: training centre manager, non-governmental organization (NGO), Women in Technical Education and Employment coordinator in a TVET institution
- » Asia and the South Pacific: NGO, development practitioner specialized in inclusive TVET
- » Arab States: none given
- » Europe and North America: former representative of a government body
- » Latin America and the Caribbean: none given

Figure 2 - Survey respondents' affiliations by region

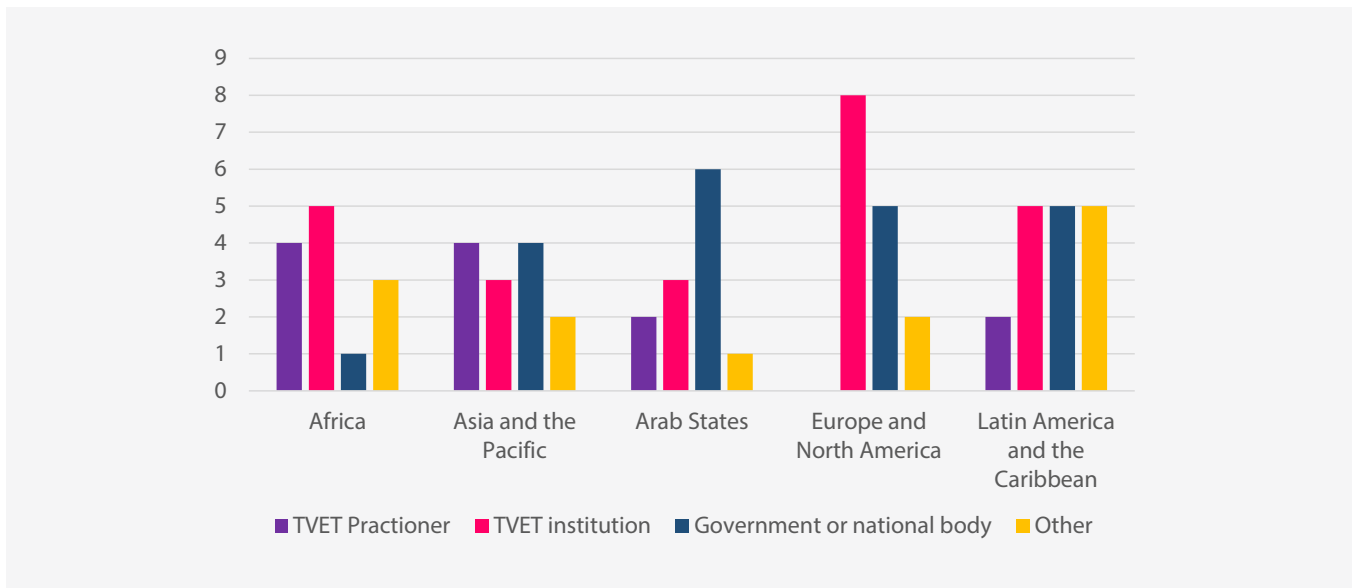


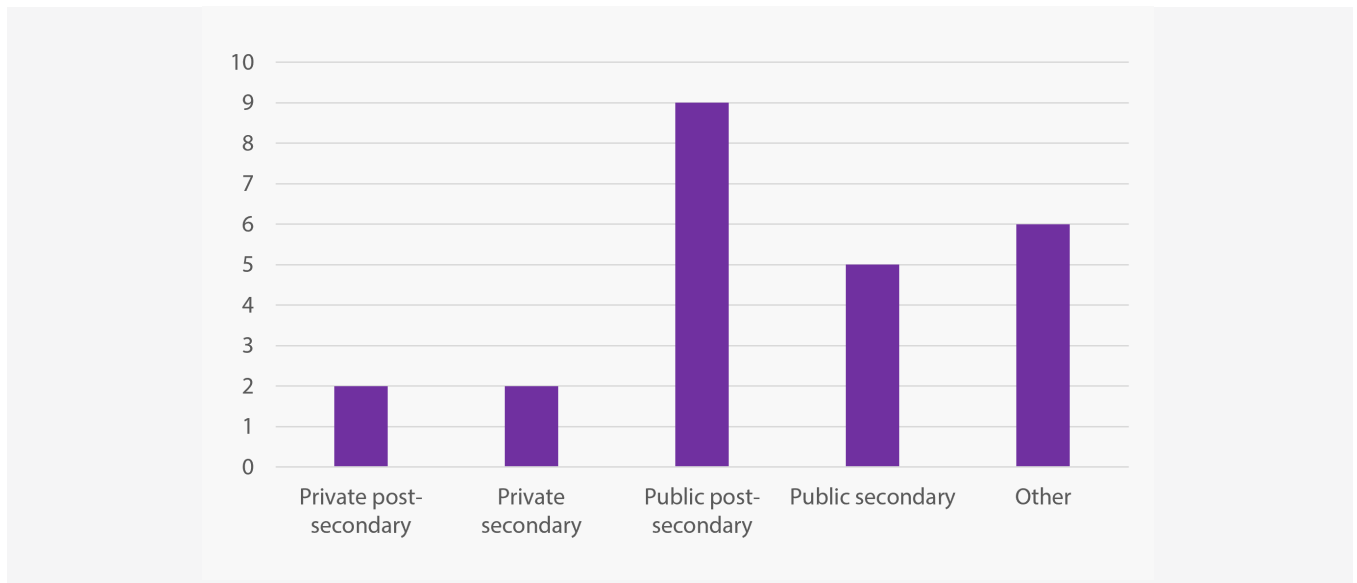
Figure 3 - Response by TVET institution type


Figure 3 categorizes those who responded from a TVET institution by type of institution. It shows that most responses, including those in the ‘other’ category, were given by representatives of public institutions, when this information was given (twenty-four respondents in total).

Where respondents entered ‘other’, they were asked to define this. The ‘other’ category included one of each of the following institution types:

- » ‘Techvoc’ offered by an association
- » Public secondary and public post-secondary
- » Public secondary, post-secondary and adult vocational education and training
- » Public university
- » Public tertiary institution
- » Higher institution

Definitions

‘Youth’ is defined in this paper as people between the ages of 15 and 35. This broad meaning was adopted to accommodate the differing definitions across regions and countries. Youth is used interchangeably with young people.

The paper uses the definition of gender adopted by the World Health Organization (WHO). ‘Gender’ refers to the ‘characteristics of women, men, girls and boys that are socially constructed. This includes norms, behaviours and roles associated with being a woman, man, girl or boy, as well as relationships with each other’ (WHO, 2021).

The paper adopts UNESCO’s definition of TVET as ‘those aspects of the educational process involving, in addition to

general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life’ (UNESCO, 2001). It focuses on technical and vocational education delivered at secondary and post-secondary level and non-formal and informal provision by public, private for-profit and not-for-profit providers.

Brief overview of data on school participation

Sustainable Development Goal (SDG) 4 seeks to increase access to general and technical and vocational education at all levels, primary, secondary and tertiary, for all people. Despite the progress achieved, in 2018 about 258 million youth, children and adolescents were out of school (UNESCO, 2020). Of this population, about 60 million (8 per cent) were of primary school age, 62 million (16 per cent) lower secondary school age and 138 million (35 per cent) upper secondary school age. Table 1 presents the distribution of these data across regions² and high-, low- and middle-income countries.

The data in Table 1 show that most out-of-school children and adolescents are concentrated at upper secondary level. This suggests low access to secondary education, including TVET, which is mainly delivered at upper secondary and post-secondary levels. Access to secondary education is lowest in low-income countries, followed by middle-income countries, with high-income countries having the smallest percentage of out-of-school population at upper and lower secondary levels.

² The regional categorization as it appears in Table 1 is based on the UNESCO Institute for Statistics’ (UIS) regional grouping, which differs from UNESCO-UNEVOC’s regional grouping used in Figure 2.

A gender disaggregation of the out-of-school population data as illustrated in Figure 5 shows huge variations across regions. Only Latin America and the Caribbean has nearly achieved gender parity ³ (adjusted gender parity index [GPI] 0.96) at lower secondary level. At upper secondary level, gender parity is nearly achieved in Southern Asia (adjusted GPI 1.06) and Latin America and the Caribbean (adjusted GPI 0.93). While girls are mostly disadvantaged at all levels across the regions, the data show that boys of lower and upper secondary school age in Southern Asia and Eastern and South-Eastern Asia are more likely to be out of school.

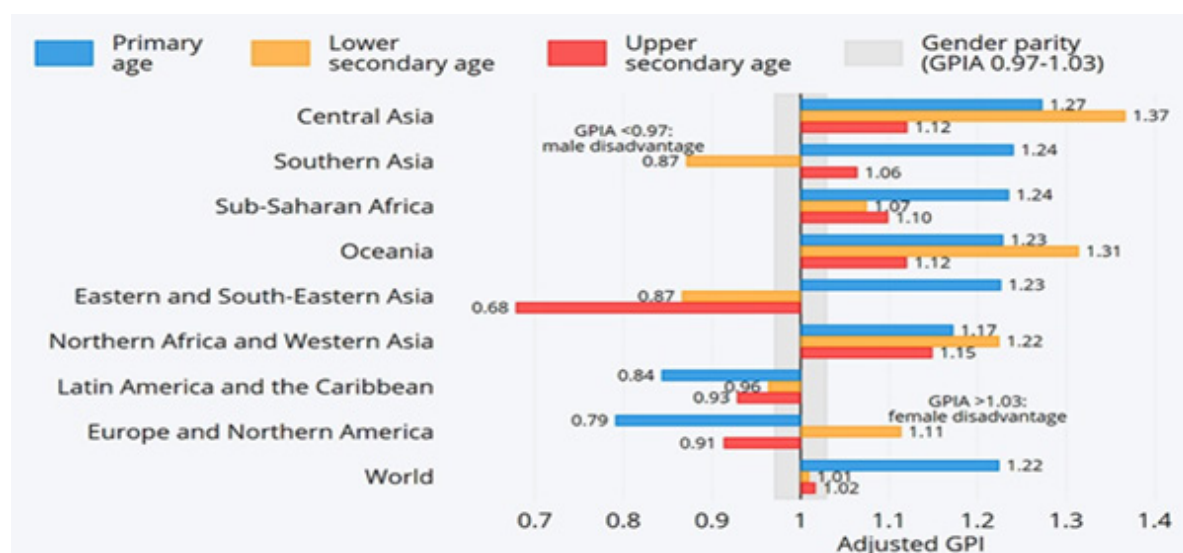
³ The adjusted gender parity index is a method of calculation that corrects asymmetries in the gender parity index to enable easy interpretation. In Figure 4, values above 1.03 (presented on the right side of the parity line) demonstrate female disadvantage while values below 0.97 (presented on the left side of the parity line) indicate male disadvantage. A value close to 1 indicates gender parity.

Table 1 - Out-of-school data by education level

	"Primary Out-of-school Children"		"Lower Secondary Out-of-school Adolescents"		"Upper Secondary Out-of-school Youth"	
	(000)	(%)	(000)	(%)	(000)	(%)
World	59.141	8	61.478	16	137.796	35
Sub-Saharan Africa	32.214	19	28.251	37	37.026	58
Northern Africa and Western Asia	5.032	9	1.998	14	8.084	30
Central and Southern Asia	12.588	7	16.829	15	64.745	46
Eastern and South-Eastern Asia	5.697	3	9.016	10	17.870	21
Latin America and the Caribbean	2.267	4	2.544	7	7.159	23
Oceania	210	5	109	5	408	25
Europe and Northern America	1.133	2	731	2	2.503	7
Low income	20.797	19	21.243	39	26.176	61
Lower middle income	30.444	9	30.706	17	87.730	44
Upper middle income	6.570	3	8.444	7	20.615	20
High income	1.330	2	1.085	3	3.275	5

Source: UNESCO, 2020

Figure 4 - Adjusted parity index of the out-of-school rate, 2018



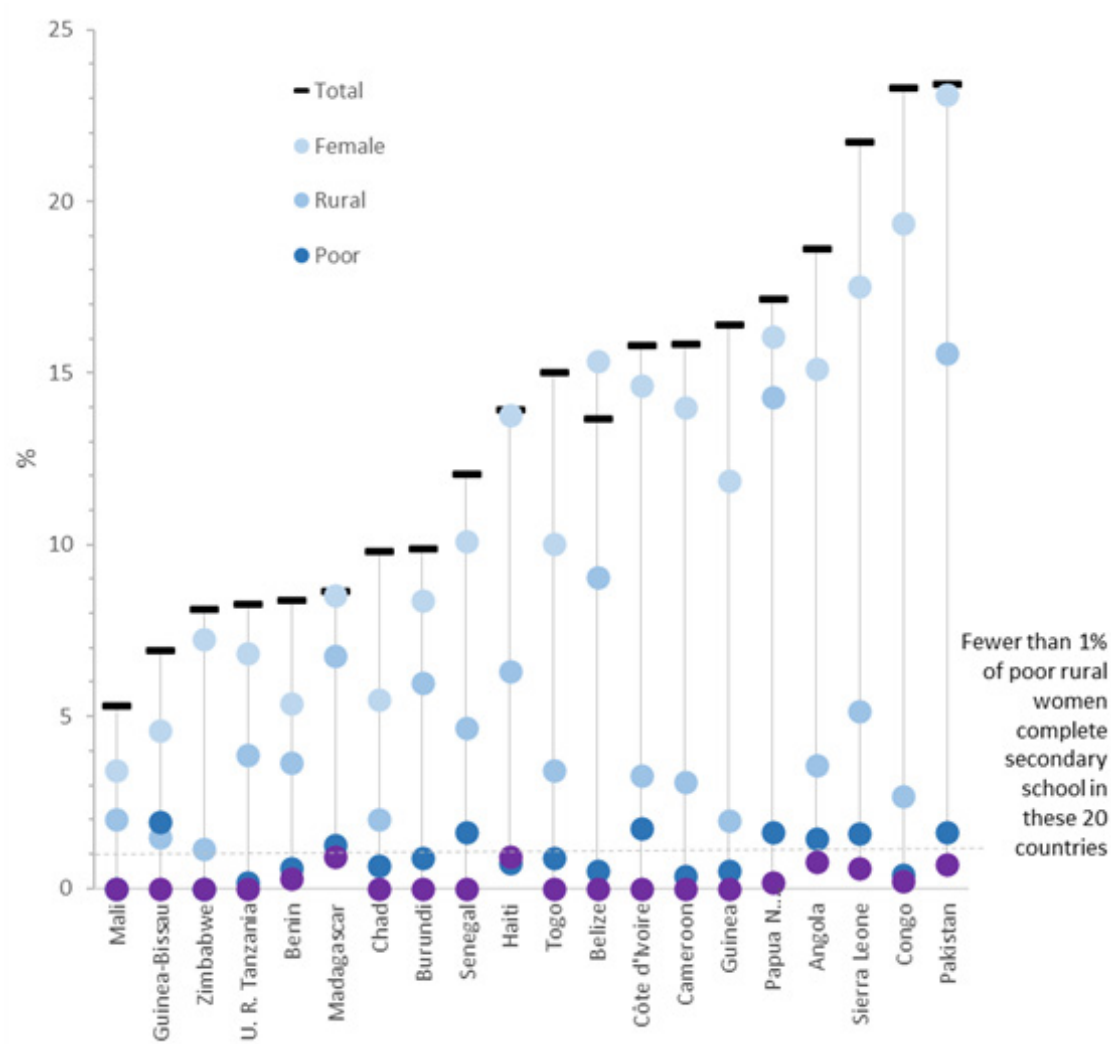
Source: UNESCO, 2019

These figures point to the importance of understanding the issues that contribute to drop-outs and affect young people's access to and progression in education and training. As will be highlighted later, an intersectional approach to understanding disadvantage in education and training is very useful in efforts to increase access and retention of young people in TVET. For example, gender and income poverty intersect with other markers of disadvantage to impact access to and progression in TVET. A review of some twenty countries in Africa, Asia,

Oceania and the Caribbean shows that 'fewer than 1% of poor rural women complete secondary school' (UNESCO, 2020).

Besides out-of-school population data, data on the rate of participation of youth (15 to 24-year-olds) in technical and vocational education in 2019 shows that a very small share of this population are involved in TVET. Global participation rate in TVET is less than 5 per cent. The rates of participation across regions are presented in Figures 6 and 7.

Figure 5 - Upper secondary school completion rate by sex, location and wealth, selected countries, 2013–2018



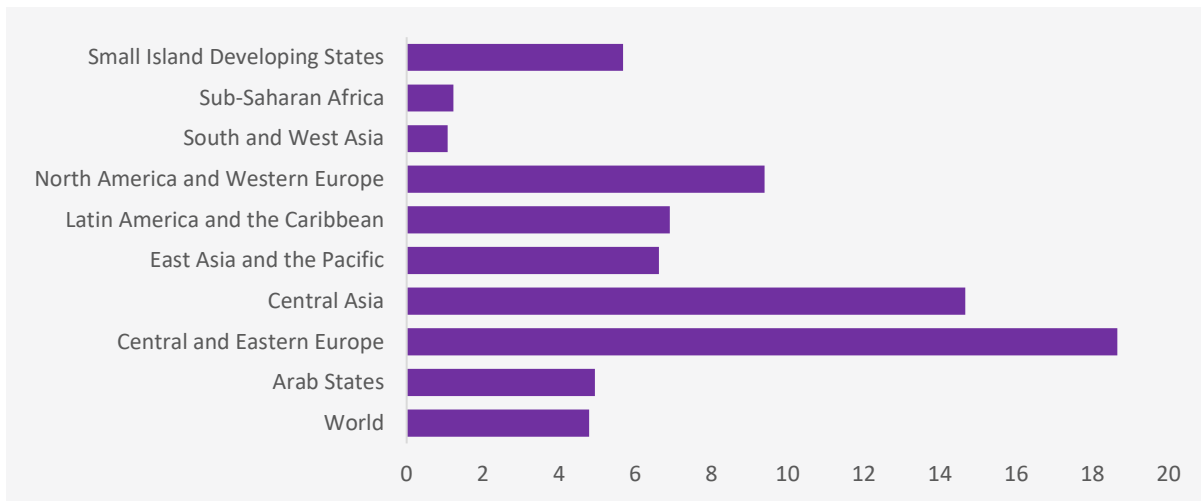
Source: UNESCO, 2020

Figure 6 shows that Central and Eastern Europe is the region with the largest share (about 19 per cent) of the 15 to 24-year age group participating in TVET. This region is followed by Central Asia, and North America and Western Europe, which have about 15 per cent and 9 per cent of youth participating in TVET, respectively. The data show that South and West Asia and Sub-Saharan Africa have the lowest share, that is, less than 2 per cent of youth participating in formal TVET. A gender disaggregation of the data as shown in Figure 7 indicates that female participation in TVET is lower than male participation across most of the regions. The data show that a lot needs to be done to increase access to TVET, especially for the most marginalized or disadvantaged.

provision and they mask other forms of information useful in understanding the full participation of learners, especially the disadvantaged. One example is the progression of learners, namely those with special education needs and disabilities, indigenous learners, refugees, asylum seekers and young people living in poverty. Furthermore, knowledge of the courses or programmes that are taken cannot be ascertained from the data. This information is useful to understand the progress being made and how young people of varying backgrounds can be supported in TVET. This paper contributes to an understanding of the issues or barriers that young people face, which affect their access to and progression in education and training, and the strategies being used to address their needs.

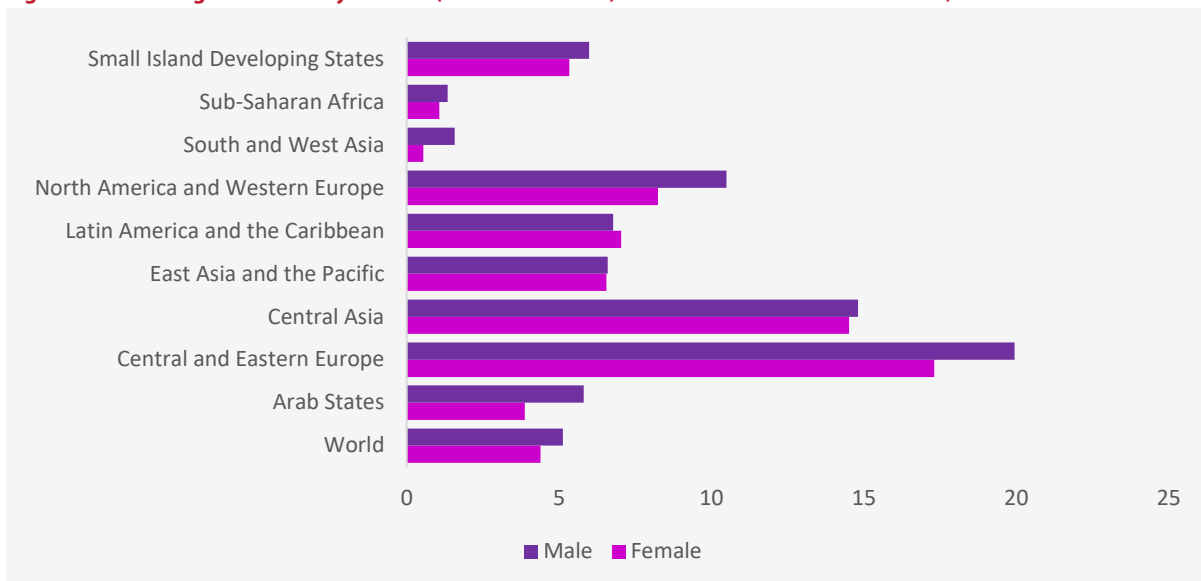
While these data provide a broad overview of access to TVET for young people, they do not reveal the quality of

Figure 6 - Percentage of 15 to 24-year-olds (both sexes) enrolled in vocational education, 2019



Source: UIS database

Figure 7 - Percentage of 15 to 24-year-olds (male and female) enrolled in vocational education, 2019



Source: UIS database

2. Conceptualizing disadvantage

To understand the participation of young people in education and training, this paper highlights three main factors that contribute to disadvantage but acknowledges that this is a major simplification. The factors are rurality, migration and multidimensional poverty. This paper adopts an intersectional lens to understand the interactions among these dimensions and other categories of disadvantage. In view of this, it notes that rurality, migration and multidimensional poverty intersect with gender, race, ethnicity, religion, caste, age and disability to inflict multiple forms of disadvantage. This helps to move beyond singular approaches to understanding and addressing the needs of disadvantaged youth.

Multidimensional poverty

Poverty is about more than inadequate income, important though that is. Therefore, this paper takes a multidimensional view of poverty. For rural and urban areas, this helps us better understand how disadvantaged learners are constrained in their approach to VET in terms of enrolment, retention and performance. Powell and McGrath (2019) used six dimensions in a study of TVET learners' experiences in Cape Town, South Africa, but such lists always need to be context-specific. The six dimensions were household income, individual income, single-parent households, highest parental educational attainment, drugs and gangsterism, and housing. They argued that 'the inclusion of non-income dimensions of poverty offers important insights into the structural constraints on the development of intrinsic goals and allows the interaction between non-income and income-dimensions of poverty to be determined' (Powell and McGrath, 2019). Among the poor, multiple intersectional inequalities such as those relating to gender, disability, race and age influence how poverty is experienced. This makes it easier to understand what needs to change to help learners to flourish.

Rurality

The term rurality is plagued with conceptual difficulties. It is mainly conceptualized from three lenses: geographical, socio-economic and sociocultural. From a geographical perspective, it is defined in relation to settlement size and distribution, population density and remoteness or peripherality (Bosworth and Somerville, 2014; Jonard et al., 2009). Rural areas are characterized by sparse settlements and lower population density. Peripherality is conceived as settlements' access to infrastructure and services such as motorable roads, transport services, schools and 'opportunities, activities or assets existing in other areas and the area itself' (Jonard et al., 2009). The definition of peripherality helps to account for variations in the degree of remoteness and the rural–urban continuum, as evident in characterizations such as fringes, peri-urban, villages and rural towns.

From a socio-economic perspective, rurality is associated with agricultural activities, low per capita income, natural resource-based livelihoods and poor social development such as inadequate access to educational institutions, health services, transport and communication services. The socio-economic and geographic or statistical conceptualizations of rurality have been central to rural planning and development.

The sociocultural perspective emphasizes the cultural and social aspects of life and is more positive. Within this perspective, rurality is often associated with strong networks or community cohesion, values, customs, harmony and security (Bryant and Pini, 2010).

Rurality is not fixed but fluid, dynamic and context specific. Most importantly, variations exist across regions, states and countries. These are taken into consideration in interpreting the literature on the participation of young people in education and training. None of the lenses is enough on its own and rurality interconnects with other forms of disadvantage (Clove, 2006). For example, it is estimated that about three-quarters of the global poor reside in rural areas (Lange et al., 2020) and most people from racial and ethnic minorities are found in rural areas.

Migration

Migration is the movement of people from one place to another and has two main types: labour and forced migration. Forced migration is the involuntary movement of people internally (within the borders of their countries) or internationally. Unlike forced migration, labour migration is usually voluntary and the main reason for movement is economic.

Forced migrants who stay within their borders are referred to as internally displaced people while those who move out are known as refugees or asylum seekers. A refugee is defined as 'someone who has been forced to flee his or her country because of persecution, war or violence. A refugee has a well-founded fear of persecution for reasons of race, religion, nationality, political opinion or membership in a particular social group' (United Nations High Commissioner for Refugees, 1978). Prior to the acceptance of individuals' claims for protection in another country, they are referred to as asylum seekers.

While labour migrants, refugees and asylum seekers share some forms of disadvantage, this paper takes a greater interest in refugees, asylum seekers and internally displaced people due to the conditions that lead to their migration and the vulnerabilities they encounter.

3. Framework for categorizing strategies to address the needs of disadvantaged youth in TVET

This paper adopts Tomaševski's (2001) 4As framework for assessing the right to education as an analytical tool to understand and discuss strategies to meet the needs of disadvantaged youth. Tomaševski's framework consists of four distinct, interrelated aspects: availability, access, acceptability and adaptability of education and training to the needs of all learners. These are explained below. Questions for reflection on the 4As are presented in Annex 1.

Availability

Availability captures the recognition of people's rights to education and training as specified in international, regional, national, state or federal legislation or regulations and policies. Examples include specification of the rights of disadvantaged people such as refugees, asylum seekers, women, indigenous populations and those with disabilities. These are important as they provide the reference point for implementing provisions and holding stakeholders accountable. Holding states to account on legal obligations has been central to human rights work in the education sector (McGrath, 2018).

Besides the specification of people's rights to TVET in policies and legislation, availability includes the fiscal allocation that national or federal states and the international development community commit to TVET. TVET is often very expensive and high fiscal allocation is key to ensuring quality provision. As the goal of this paper is to understand how access can be expanded for disadvantaged youth, it is important to consider the availability of alternative education that enables out-of-school youth to be integrated into mainstream vocational education.

Accessibility

Accessibility focuses on the conditions that make it possible for learners to pursue and progress in and through TVET. These include arrangements to financially support learners, recognition of foreign skills and qualifications, the removal of legal and administrative barriers and the creation of an environment that is inclusive of all learners regardless of ethnicity, race, disability, migration status, gender and financial status.

Acceptability

Acceptability relates to the provision of quality TVET. The European Training Foundation (2015) highlights five features of TVET that are useful in understanding quality provision:

- » Responds to the labour market, societal and individual needs
- » Leads to nationally or even internationally recognized qualifications and credentials
- » Provides access to decent jobs and sustainable employment
- » Is attractive, inclusive and accessible, that is, all citizens have access to TVET
- » Fosters capabilities that enable progression to further learning

Employers and labour markets have a great influence on acceptability. However, it is about more than what employers want. Ultimately, learning should be learner-centred not employer-centred, even in TVET.

The state has an important role in guaranteeing quality TVET by expanding public provision and supporting quality private provision. It must ensure quality assurance among TVET providers, namely private (formal and informal) and non-formal provision by agencies and organizations. However, evaluation of the merits of public-private partnerships (PPPs) must be grounded in a narrow calculation of whether more resources have been made available for the sector and in a more complex calculation of the contribution of such partnerships to the wider goals of TVET across its three pillars. In the context of this paper, the effects of PPPs in reversing disadvantage must be absolutely central to any decisions.

Adaptability

Adaptability builds on accessibility and acceptability and focuses on the extent to which TVET can be tailored to learners' individual needs and adapt to changing trends in society and the world of work. This requires careful, self-critical analysis within TVET institutions about hidden exclusions in curriculum, facilities, language use by staff, etc. to check whether formal inclusion of the disadvantaged and marginalized is undermined by informal exclusions and discriminations.

This paper was written in early 2021 as many countries were facing a new round of COVID-related lockdowns and still dealing with how the 2020 crisis had affected teaching and learning. In this context, adaptability requires innovative approaches such as building information and communication technology (ICT) into other forms of support to make TVET accessible, acceptable and adaptable to learners' needs. The successful integration of ICT into TVET requires financial investment and changes in pedagogical approaches, redesign of curricula, technological considerations, organizational approaches and partnership with key stakeholders (Mead Richardson and Herd, 2015; Yian and Park, 2018). These factors are also useful in bridging inequities in access or the digital divide, especially for disadvantaged learners. This paper addresses this in later chapters. Figure 8 represents the 4As visually.

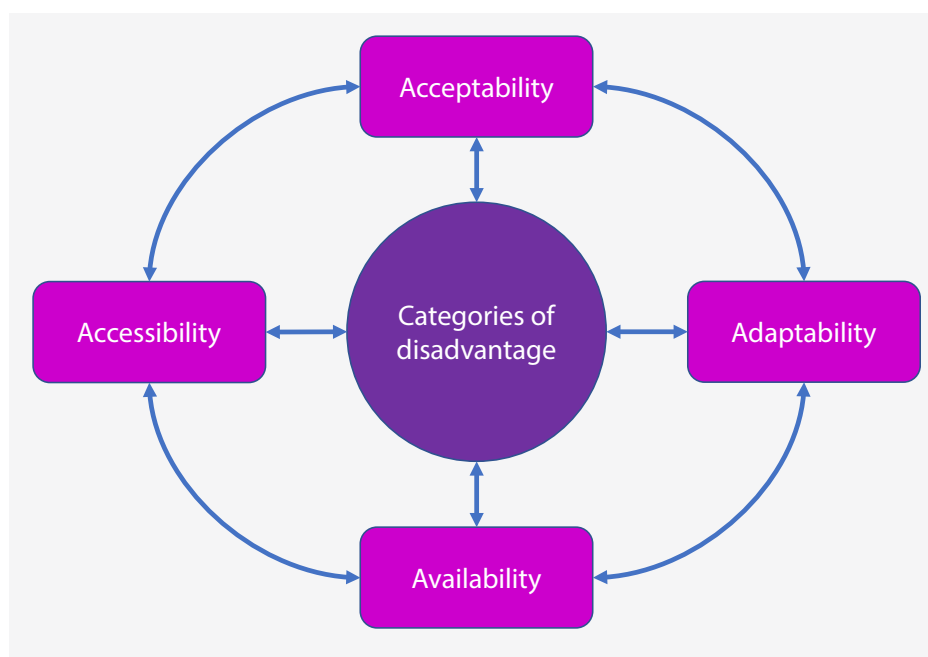
In the centre of the figure are the categories of disadvantage, such as multidimensional poverty, migration status, rurality, gender, disability, race and ethnicity. In the development or assessment of the inclusiveness of a strategy or policy, the key question to ask is: Who are the disadvantaged and who is excluded in TVET? As highlighted in the chapter on conceptualizing disadvantage (Chapter 2), an intersectional approach to this question is very useful to understand and

address the multiple ways young people are excluded from TVET. For example, strategies to facilitate access to TVET for migrants that are not sensitive to intersectionality will not address the needs of a female migrant who is from an ethnic minority group, lives in a rural area and is disabled.

While the 4As might appear to be sequential in the diagram, they need to be seen as building on or interacting with each other. This is represented by the bent arrows that connect them. For example, the specification of policies under availability encourages attempts to develop concrete strategies or interventions to meet policy objectives, which could be aimed at making TVET accessible, acceptable and adaptable. The relationship between all the components can be observed by presenting case studies in the discussion of the strategies that are being used or could be used to meet the needs of disadvantaged learners.

The arrows connecting the categories of disadvantage and the 4As show that the categories are not fixed. Consequently, it is important to continually reassess policies, strategies and interventions to determine the extent to which they meet the intersectional needs of young people.

Figure 8 - Visual representation of the 4As



Questions for consideration in the development and assessment of the extent to which policies and practice meet the needs of learners

Availability:

- » Are there provisions in TVET and labour market policies that stipulate and address the needs of disadvantaged learners?

Adaptability:

- » Are there personalized interventions to address the intersectional needs of disadvantaged learners?
- » Is the curriculum culturally relevant and tailored to the intersectional needs of disadvantaged learners?
- » Is the teaching timetable flexible to address the needs of learners?

Acceptability:

- » Are there varied quality assurance mechanisms for different institutions depending on their capacity?
- » Are local and representative groups and organizations consulted and involved in TVET reforms aimed at disadvantaged youths?
- » Is the curriculum tailored to the needs of learners while being relevant to labour market needs?

Accessibility:

- » Is the TVET curriculum accessible to disadvantaged learners (migrants, women, ethnic minorities and indigenous learners)?
- » Is the learning environment inclusive of disadvantaged learners?
- » Is inclusion addressed in teacher education?
- » Is the delivery of inclusion in teacher education comprehensive?
- » Is the physical and built environment in and around the school accessible, that is, safe for women and migrants and usable for learners with disabilities?
- » Are there institutional structures to monitor, record and address poor practices such as discrimination, bullying and gender-based violence in and around schools and workplaces?
- » Does available financial support for learners cover tuition, transport, cost of living, books, tools and equipment?
- » Are legal, administrative and institutional barriers to access and progression for migrants in education and the labour market removed?

4. Barriers to the education and training of young people

This chapter focuses on eight issues or barriers that disadvantaged youth face in their education, training and labour market participation. The issues are: language barriers; legal, administrative and institutional barriers; sociocultural barriers; a non-inclusive environment; financial barriers; the proximity of TVET institutions; labour market challenges; and inadequate information, advice and guidance. These issues are discussed separately but intersect with each other to disadvantage young people.

Language barriers

Language is an important aspect of people's identity, culture and sense of belonging. It is a resource for individuals and communities, but historical events have led to the privileging of some languages over others. This intersects with race, ethnicity, social class and gender to impact the educational outcomes of young people. In the context of increased migration and forced displacement, the linguistic capabilities of refugees and asylum seekers are often insufficient to enable them to access and progress in education, training, and work.

The survey conducted as part of the paper confirmed that language is a barrier. Respondents ranked language difficulties as a significant concern for refugees and asylum seekers in terms of access to and progression through TVET. In some cases (Croatia, Canada, Nigeria, Kyrgyzstan, United Arab Emirates and Pakistan), respondents also wrote about 'minority language' support as a feature of their practices.

The language proficiency of refugees and asylum seekers intersects with the legal, administrative and integration policies of countries to influence access in practice and the acceptability of the available arrangements. For example, in Europe arrangements differ across countries, levels and forms of education and training. Whereas most countries use migrants' age, transcripts, certificates and other forms of recognition of prior learning to admit them to schools, others such as Germany and German-speaking areas of Belgium and Italy focus more on the language competences of refugees and asylum seekers in addition to these criteria. For example, in the German-speaking area of Belgium, for migrants to be admitted into mainstream education they must have German language competency above level A2 (everyday communication) of the Common European Framework of Reference for Languages (European Commission/EACEA/Eurydice, 2019). Refugees and asylum seekers who have language competencies below this level are placed in preparatory classes.

In other European countries, preparatory classes are referred to as separate or transition classes. Refugees and asylum seekers who are put in these classes receive extensive language instruction and other kinds of support, including subject instruction. The duration of preparatory classes varies across countries. They could last as long as two years, depending on an assessment of the learners' language proficiency. In some cases, the support is not enough to enable the swift transition of learners into regular schools or classes. For migrants between the ages of 15 and 17, long language classes affect integration into society. They may lead to missed opportunities to access upper secondary education in countries such as Sweden and Italy, where age is a determinant of access (European Union Agency for Fundamental Rights, 2019).

Language affects learning outcomes. Learners may feel anxious and less confident in class and could find it hard to understand teachers' accents. As a result, learners may engage less with teachers and course materials. Equally, teachers may struggle when their regular pedagogical approaches are obstructed by language barriers.

However, it is important to stress that language issues are not confined to refugees and asylum seekers. When left unaddressed, challenges experienced by learners at lower levels of education lead to dropouts and affect learning outcomes at post-secondary education levels. Learners in many countries struggle to comprehend lectures and course materials in a language other than their own, whether it is a national or international language. In Tanzania, Rogers (2019) points to the major challenge for TVET progression caused by examinations being written in English. Language also influences challenges that young people face such as physical and non-physical bullying.

Legal, administrative and institutional barriers

Citizenship is often central to the rights of individuals, including rights pertaining to TVET. Thus, refugees, migrants and asylum seekers are the most obviously at risk of being disadvantaged by legal and administrative barriers. Institutions often have little choice but to mirror such patterns of disadvantage.

At international level, conventions, legislation and instruments guarantee the rights of forced migrants to education and

training. Key among these is the 1951 Refugee Convention and the 1967 Protocol Relating to the Status of Refugees.

In relation to primary or elementary education, Article 22, Section 1 of the Convention states 'shall accord to refugees the same treatment as is accorded to nationals with respect to elementary education'. In view of this, forced migrants have the right to access free public education in many countries. However, the right to education does not imply access in practice as other barriers exist. Examples are delays due to legal and administrative processes relating to assessing learners' education level, residential registration, lack of teachers and places in schools. These barriers may lead some migrants to miss elementary education, with implications for TVET.

In keeping with the child-focused nature of much of international law on education, the situation becomes less clear as students progress through educational subsystems or get older. Article 22, Section 2 of the Convention states that 'the Contracting States shall accord to refugees treatment as favourable as possible, and, in any event, not less favourable than that accorded to aliens generally in the same circumstances, with respect to education other than elementary education'. The wording of the clause gives states discretion to decide on access to public post-primary education.

There is no absolute right to TVET, even for citizens. According to a study by the British Council (2018), some countries such as Ethiopia restrict access to public TVET for migrants. Access to TVET is impacted by the need for migrants to provide relevant documentation such as identity cards, right to work, previous qualifications and certifications. In EU law for instance, countries are free to decide to grant asylum seekers access to vocational training and employment. In Austria, asylum applicants do not have access to apprenticeship, and this is the case in France for young asylum applicants over 18 years old. In countries where the law permits recruitment of asylum seekers, employers may be deterred by the lengthy processes and uncertainties regarding the final decision on their claim (European Union Agency for Fundamental Rights, 2019).

Many forced migrants cannot provide identity documents and evidence of previous schooling. Therefore, recognition or validation of prior learning and flexibility in the rules is essential to assess migrants' educational level and enable them to access education and training. It is important to accommodate differences in skills and qualifications obtained in migrants' countries of origin and those required to participate in education and the labour market in host countries. Some countries have systematic assessment procedures and do not require previous certificates, but this is not the case in other countries. In such cases, learners may be inappropriately assessed and wrongly placed in classes that are not commensurate with their level (European Union Agency for Fundamental Rights, 2019). This causes frustration and affects motivation to learn and progression.

Access to TVET is also affected by a lack of unified policies on the documentation required and the verification and recognition of previous qualifications. This leads to inconsistencies and a lot of discretion in the implementation of legal provisions. For example, in Lebanon some higher education institutions require proof of all documentation before access, while other institutions admit students on the basis that the documentation will be acquired and provided before they graduate (El-Ghali et al., 2019). In some countries such as Lebanon and Jordan, refugees are classified as international learners and must pay the tuition fees associated with this status (Fincham, 2020; Human Rights Watch, 2020). This is entirely consistent with the wording, if perhaps not the spirit, of the Refugee Convention.

Sociocultural barriers

Large numbers of learners encounter sociocultural barriers to access and progress in TVET. These include gender norms and practices, discrimination of various forms and early marriages. These practices intersect with other dimensions such as rurality, religion, migration status, caste and poverty to disadvantage female learners.

It is widely accepted that the gendered division of labour that results in women and girls bearing the burden of domestic responsibilities negatively impacts their participation in education and training. It is estimated that 'globally girls aged 5–14 spend 550 million hours every day on household chores, 160 million more hours than boys their age spend' (UNICEF, 2016). This leads to inequities in the learning outcomes of girls compared to boys.

Second, early marriages, unequal power relations within marriages and the lack of sexual and reproductive health rights and services for young women all contribute to early pregnancies and high fertility, which impact progression in education and training. Among migrant communities in host countries, child marriages are higher than levels before migration (Akyuz et al., 2018; Culbertson and Louay, 2015; Human Rights Watch, 2020). Through early marriage, parents transfer the responsibility of care to husbands and this exposes girls and young women to sexual and gender-based violence (Government of Lebanon and United Nations, 2019).

The problem of early pregnancies is compounded by a lack of legislation and policies that allow pregnant girls to remain in or return to school as they are considered a negative influence on other girls. Human Rights Watch (2018) reports that a minority of countries in Africa have laws, policies and strategies that ensure the re-entry of girls into education after pregnancy. In countries that have policies in place, there is often a lack of awareness among teachers, heads of institutions, communities and young girls. This leads to a lack of support for and/or arbitrary implementation of policies (Human Rights Watch, 2018). Even in these countries, little effort is made to ensure the re-entry of young mothers, so many girls do not return to school.

The poor legal environment intersects with sociocultural practices, gender norms and stereotypes to impact female participation in TVET. Many women are discouraged from undertaking non-traditional trades due to norms on appropriate occupational choices for their gender (Paudel, 2019). Beyond access, gender stereotypes and masculine institutional cultures contribute to the prejudices and discomfort young women encounter in TVET (Colley et al., 2003).

Survey respondents considered sociocultural barriers such as gender norms, family responsibilities and lack of child-care support as more significant barriers for young women than for any other group. Family responsibilities were a significant concern in access for young women, and lack of child-care support was a significant concern for progression of young women through TVET. In relation to other categories of disadvantage, gender norms were considered 'no concern' as often as they were seen as a significant concern.

Non-inclusive environment

An inclusive learning environment is an environment that reflects the diversity of learners where the pedagogical practices of teachers, the curriculum, the learning materials, the physical or built environment and other support services are tailored to the learners' needs. Access and the learning outcomes of many youth in education and training are impacted by an inadequate learning and working environment.

The nature of the built environment is a major barrier to access and progression of learners, especially young women, and those with disabilities. In many low- and middle-income countries, TVET institutions are not equipped with acceptable washrooms, boarding facilities for young women and disability-friendly infrastructure. This discourages the participation of learners and leads TVET institutes to discriminate against these learners in their admissions processes. Nonetheless, some survey respondents did note investments in study spaces (Latvia, Iraq, Malaysia), extra tutors or classes (Canada, Czechia, Sweden) and 'specialist learning facilities' (China, United Arab Emirates).

In classrooms and workshops, the pedagogical practices of teachers and trainers are often not inclusive of people with disabilities, young women, refugees and asylum seekers. These learners are frequently discriminated against. Studies show that male learners in TVET are given more support, learning materials and opportunities to demonstrate in classes and laboratories than female learners (Beilmann and Espenberg, 2016; Mutarubukwa and Mazana, 2018). These practices lead some women to lose interest and disengage with their programmes. Others adopt coping mechanism such as working hard to prove themselves (Mutarubukwa and Mazana, 2018; UNESCO-UNEVOC, 2020a). In contrast to these studies, the survey responses show that discriminatory practices in institutions are consistently seen as either of

minor or no concern by survey respondents in relation to any of the disadvantaged groups. This perhaps highlights the difficulty of asking practitioners to comment on such practices in their own institutions and complexities around definitions and perceptions of discrimination.

Furthermore, special educational needs and needs of learners such as those with disabilities are not catered for in teachers' pedagogical approaches (Alla-Mensah, 2019; Mäkinen et al., 2019; Tukundane and Zeelen, 2015). These practices are the cause and consequence of inadequate inclusive pre-service and in-service teacher training. A recent study by UNESCO-UNEVOC on the future of TVET teaching shows that TVET practitioners receive less instruction on inclusive education than on other areas such as knowledge of subjects and pedagogical competencies (UNESCO-UNEVOC, 2020b). This is consistent with most survey responses.

Crucially, sexual and gender-based violence (SGBV) is the most reported barrier that learners encounter in and around the school environment that affects their participation (Matenda, 2020). It is estimated that globally about 246 million children experience SGBV each year (UNESCO, 2016). While all female learners are disproportionately affected by this, learners in conflict or emergencies and a fragile context and those who commute long distances to school are usually at a higher risk of experiencing SGBV, as are those who face other forms of discrimination.

While the dynamics will be somewhat different (reflecting, for instance, a different age range and the further complications of work placements), it is reasonable to expect that this is a major issue in TVET. In this survey, safety issues for young women, particularly protection from sexual harassment, were raised in the 'other barriers' section of the survey. However, when asked whether gender sensitivity of the educational environment was a concern in the progression of young women, most respondents stated that it was of minor or no concern. Further research on the experiences or perspectives of TVET learners in this area will be useful.

Financial barriers

In conceptualizing disadvantage in this paper, income and household poverty have been highlighted as key aspects of disadvantage for young people. Their socio-economic status intersects with the type of TVET provision and the structures or modalities of financing available in countries to inform access and progression in TVET. Financing modalities are explored later in this paper. This section focuses on how young people's financial status and the available opportunities affect their education and training choices.

First, financial barriers lock learners out of TVET as many cannot forego the opportunity cost of pursuing TVET. In a study of the experiences of Syrian learners in higher education in Lebanon, Jordan and Turkey, Fincham (2020) noted that while scholarships enable some refugees to access higher

education, they are still overburdened by indirect costs. This is likely to be a problem in vocational education. The very poor are therefore screened out as they are unable to take up scholarships. This further increases class inequalities among refugees and members of the host societies. Those who can take up scholarships are forced to juggle work and school to cover other needs such as food, transport and clothing (El-Ghali et al., 2019; Fincham, 2020). The difficulty of carrying out both activities contributes to drop-out, a finding that has also been noted in the South African context (Powell and McGrath, 2018).

In contexts with little formal apprenticeship and widespread informal apprenticeship, finance heavily influences the decision on which mode to enrol in. Within informal apprenticeship, opportunities for further education in formal TVET are hindered by cost. This limits disadvantaged youth's access to and progression in the formal education system and decent employment in the formal economy. For young women, this intersects with sociocultural norms to reinforce their exclusion in and from TVET, as highlighted earlier.

Second, financial barriers significantly impact learning outcomes. Powell and McGrath's (2018) study on the experiences of learners in South African colleges showed that delays in funding can cause learners to miss important academic deadlines and/or to underperform. In addition, learners' decisions at critical junctures such as those relating to internships are affected by finance.

Financial barriers to access and progression relating to costs of tuition or transport were consistently seen as significant by survey respondents in all categories of disadvantage, and in particular for rural youth, young people living in poverty and young women. A total of 75 per cent of respondents saw transport costs as a barrier to access for young people living in poverty. This represents the most consistently agreed concern across the sample. In the free text boxes asking for 'other barriers', lack of access to technology at home, daily food and 'living costs' were cited as being significant barriers to accessing TVET for those living in poverty. In the final section of the survey, where respondents were asked what young people in these categories of disadvantage needed to access and succeed in TVET, almost all responses referred to financial support.

Proximity of TVET institutions

The participation of young people in rural areas is greatly affected by the availability and quality of TVET provision within a reasonable distance. Globally, there is an urban bias in the distribution of TVET institutions. Even in advanced economies such as the United Kingdom (UK), access to neighbouring institutions is hampered by poor access routes and public transport services (Commission for Rural Communities [UK], 2012). Where public transport is available, it is unreliable, infrequent and make commuting to nearby institutions financially costly and unsafe, especially for girls

(Education Authority, 2019). These are major factors that young people and their families consider in post-primary or post-16 education and training choices.

In conflict contexts and countries that host large numbers of refugees, the camps that are established for refugees and displaced people are often far from key services. While alternative arrangements are made for primary education in the camps, access to post-secondary and tertiary education is affected by the distance to nearby institutions and the curtailment of movement due to legal restrictions. For example, in a study of refugees' training needs in Jordan, it was found that distance and availability of transport to training sites were among the most important factors in the enrolment and retention of learners. Others included the accreditation of institutions, the programmes offered and the provision of stipends (United Nations High Commissioner for Refugees, 2020). Accreditation was a concern particularly in non-formal TVET programmes delivered by NGOs and intergovernmental organizations (Fincham, 2020).

In this study's survey, proximity to TVET institutions was seen as a particular concern for rural young people and young women. In these two categories, the distance to an educational institution is a concern because of the practical issue of time/cost of travel and the sociological issue of safety and protection. These issues intersect when family responsibilities, particularly for young women, mean that travel costs and time are calculated according to childcare or other family issues.

Labour market challenges

TVET is known for its close link to employment and self-employment. However, young people encounter various challenges in the labour market and in the school-to-work transition. Among the factors that contribute to the challenges are the nature of economies, skills mismatch, and the support structures available to them. These interact to disproportionately affect some learners.

Skills mismatch, defined as the incongruity between the skills supplied by TVET institutions and those demanded in the labour market, is seen as a major cause of un/underemployment in the TVET literature. There are several types of skills mismatch, most notably vertical and horizontal mismatch. Vertical mismatch occurs when people are over/under qualified for the available jobs. Horizontal mismatch occurs when the type of qualifications or skills that individuals have are inappropriate for the job (International Labour Organization, 2014). The latter results from poor links between TVET curricula and labour market needs and points to the relevance of partnership with employers and up-to-date labour market information systems.

However, this should not be seen, as it often is in policy circles, as a failure solely on the part of TVET systems and providers. The real problem is outside the control of providers when

the bulk of the economy is the informal economy or when traditional, long-term, good quality jobs at intermediate skills levels have declined hugely. Regardless of the nature of national economies, relationships between labour market needs and TVET provision are challenging. Even where employers are well engaged, planning for future skills needs is necessarily much more challenging than reacting to current needs.

Among the disadvantaged youth that this paper focuses on, young women, migrants and people with disabilities are more vulnerable in formal and informal labour markets. Studies on countries with segregated vocational training for learners with disabilities show that this practice affects their integration into regular or open workplaces (Lange et al., 2020; European Agency for Development in Special Needs Education, 2002). Taking into consideration the discriminatory practices of employers, overprotection in some labour laws and misconceptions about this group, segregated workplaces are created to keep them employed (Chang et al., 2019; Fasching, 2014). Such workplaces contribute to negative attitudes and injustices towards them. In many countries, young people who experience disadvantage are most likely to enter the informal economy. There, they are likely to experience long working hours; a lack of voice, social protection, job satisfaction, and access to finance and technology; and low productivity.

For migrants, access to decent employment is hindered by a lack of recognition of skills and qualifications gained in origin countries and legal and occupational restrictions in host countries (Wedekind et al., 2019). For example, in Jordan foreigners including refugees are barred from entry into some occupations or professions. Access to occupations is determined by the Ministry of Labour based on assessment of the demand for labour and the supply of qualified Jordanians. In 2017, seventeen professions or occupations were closed to non-Jordanians. These included 'administrative and accounting professions, clerical professions, telecommunication jobs, jobs in sales, most technical professions, including mechanical and car repair, engineering, education and some professions in hospitality' (International Labour Organization, 2017). Most of the occupations open to foreigners, including refugees, are semi-skilled and unskilled in the agriculture, construction and service sectors (International Labour Organization, 2017). Given this restriction, high graduate unemployment and a lack of decent jobs, refugees are discouraged from pursuing TVET while others undertake jobs, they are overqualified for or that are unrelated to their fields of study (Human Rights Watch, 2020). In a study on the capabilities of TVET learners in Palestine, Hilal (2019) found that TVET graduates are disproportionately engaged in unskilled and semi-skilled work due to the unavailability of jobs and restrictions to their movement in the region.

Inadequate information, advice and guidance

Information, advice and guidance (IAG) is essential to take advantage of financial opportunities, build strategic networks and navigate complex labour markets and education systems to make informed choices about career, educational courses and pathways. Some of the barriers to access and progression in TVET and employment/self-employment discussed in earlier sections can be mitigated if young people are provided with adequate IAG.

Several studies highlight the lack of IAG as one of the main reasons why many young people do not choose and progress in TVET (European Union Agency for Fundamental Rights, 2019; Marope et al., 2015; Vlaardingerbroek and El-Masri, 2008; Zeelen et al., 2010). All young people need IAG but refugees, asylum seekers, immigrants, youth in rural areas and young women tend to need it more. This was confirmed by most participants in the survey. Among female learners, the lack of IAG contributes to gender disparities in science, technology, engineering, and mathematics and non-traditional courses and trades or occupations (UNESCO-UNEVOC, 2020a).

In addition to a shortage of IAG, there is evidence of poor guidance that reinforces stereotyping and exacerbates disadvantage. For young women, people living with disability and refugees (and those at the intersection of these categories), advice may be used to stream them into unpopular vocational programmes, many of which are unpopular precisely because of their poor correlation with positive labour market outcomes. Too often what are realistic aspirations of disadvantaged learners are characterized as unrealistic and inappropriate as a result of discriminatory attitudes. Programmes are offered without adequate understanding of their preferences and guidance on prospects for further education or career progression (Beilmann and Espenberg, 2016). This contributes to drop-outs due to lack of interest in the programmes.

In a study on barriers to the participation of disadvantaged youth in State of New South Wales in Australia, Youth Action, Uniting and Mission Australia noted that in 2015, under the Smart and Skilled programme, funding was made available for about 200,000 fee waivers for disadvantaged youth (Youth Action, Uniting, Mission Australia, 2018). Due to poor promotion, lack of clarity about eligibility requirements and lack of information for the targeted population, only 12 per cent of the waivers were taken up in the first year. This suggests that more needs to be done to furnish young people with IAG in addition to the other forms of support required to expand access and improve progression in TVET.

In the context of a rapidly changing world of work, Sultana (2017) highlighted career guidance as essential in enabling young people to '[manage] non-linear career pathways,

where the relationship between TVET and a single lifetime occupation is broken'. Such non-linearity is the experience of most people globally.

Education is also changing rapidly. Increased modularization and permeability between TVET and higher education makes IAG about education, training and employment opportunities more important for all learners, especially the disadvantaged (Alla-Mensah et al., 2019; Schröder and Dehnbostel, 2019).

Lack of information, advice and guidance was seen as a significant concern by around half of respondents across all the categories of disadvantage addressed by the survey. It was particularly strongly associated with the challenges facing young migrants and refugees. In combination with the concern about legal and administrative barriers for this group, these responses suggest a particular awareness of this group's difficulties in accessing standard advice and services.

Barriers during the COVID-19 pandemic

The effects of the COVID-19 pandemic and subsequent lockdowns in many countries must be addressed. Rapid reviews of the pandemic's effects on TVET (Avis et al., 2020; GIZ [Deutsche Gesellschaft für Internationale Zusammenarbeit], 2020; Majumdar and Araiztegui, 2020; World Bank, 2020) and an IIEP-UNESCO consultation with African ministries point to unsurprising systemic impacts where lockdowns and/or institutional closures have taken place:

- » The COVID-19 pandemic has led to even less access to practical learning in workplaces
- » In most countries, those learning at home are hampered by limited digitalization of content
- » Few teachers have had any training in online and blended learning
- » These teaching and learning challenges are exacerbated by poor and/or expensive connectivity

Given that many TVET learners already experience multidimensional poverty, there are major concerns about the ways in which the pandemic is unequally affecting the most vulnerable learners, who are the focus of this paper. Where resources are particularly constrained, it seems inevitable that prioritization will often follow existing patterns of advantage and disadvantage. Many of the barriers identified earlier in this paper will have got bigger for many disadvantaged youth. This is not simply an issue of the Global South. In England, the January 2021 lockdown prompted the Association of Colleges to note that approximately 100,000 TVET college learners lacked access to remote learning (Hughes, 2021). Those in traditional apprenticeship are likely to be even more vulnerable than public TVET learners.

5. Strategies that address the needs of disadvantaged learners

This chapter uses the 4As framework to look at strategies that help to address the needs of disadvantaged learners in regions, countries and institutions. The following strategies should be read with caution though: while they may all be promising practices that are worth exploring further for their applicability to various contexts, the evidential basis for each varies and this paper does not endorse their efficacy in the specific case or their wider suitability for other contexts. Rather, they are presented as illustrations of approaches that might be worth further consideration.

Availability

At international level, various instruments, conventions, strategies and policies are in place to harness global efforts to include all people in education and training.

Examples include UNESCO's Recommendation Concerning Technical and Vocational Education (2015), UNESCO's Strategy for TVET (2016–2021), the Sustainable Development Goals (SDGs), the Convention Relating to the Status of Refugees (1950), the 1967 Protocol Relating to the Status of Refugees, the Convention on the Rights of Persons with Disabilities (2006), Refugee Education 2030, the Djibouti Declaration on Refugee Education in the Intergovernmental Authority on Development's (IGAD) Member States and the Djibouti Plan of Action on Refugee Education.

At national, state and federal level, a virtual conference organized by UNESCO-UNEVOC on inclusive TVET showed that most countries have policies that specify access to TVET for disadvantaged youth (Alla-Mensah, 2019). The virtual conference highlighted that TVET in most countries is understood in policy as a system that meets all learners' needs regardless of gender, race, ethnicity, disability, etc. However, as will be seen in the section on accessibility, there is still some understanding that inclusion refers to learners with SEND. In addition, more needs to be done to ensure a broad understanding of inclusion.

Box 1 briefly discusses the Djibouti declaration as an example of availability of TVET at regional level for forced migrants in the IGAD region. IGAD is an economic community that comprises eight countries in the Greater Horn of Africa: Djibouti, Kenya, Ethiopia, Somalia, Sudan, Uganda, Eritrea⁴ and South Sudan. Despite the long history of forced migration within the region, the declaration is the first to establish a regional approach to dealing with the educational needs of marginalized groups including refugees, returnees, internally displaced people and cross-border mobile populations such

Box 1 - Example of regional good practice in refugee education – the case of IGAD

The Djibouti Declaration and Plan of Action is a framework on education for refugees, returnees and host communities that was adopted by IGAD member states in 2017. The IGAD region hosts about 4.2 million refugees and 8.1 million internally displaced persons. Of this population, over 60 per cent are of school age (Intergovernmental Authority on Development, 2020). Uganda hosts the largest number of refugees, estimated at 1.3 million.

In the declaration, member states commit to develop five main areas that are relevant to the education of refugees and their contribution to origin and host countries. These are:

- » Regional education quality standards
- » Regional skills development for refugees
- » Inclusion of refugee education in national education systems
- » Accreditation and certification of education programmes
- » Financing, partnerships and monitoring in support of refugee education

Following these commitments, a regional education policy framework was published in 2020 to guide individual state and regional efforts to achieve targeted goals. In the policy framework are eight policy priorities and intervention areas (PIAs). They include PIA 5.2 on primary and secondary education, PIA 5.3 on tertiary and higher education, PIA 5.5 on TVET and post-secondary training, PIA 5.7 on refugee education and PIA 5.8 on gender and education.

The IGAD regional education policy is commendable. However, while it seeks to contribute to the development of an inclusive education system, learners with SEND are not mentioned. This could lead to neglect of these learners' needs within the marginalized populations that the policy targets. In addition, the policy's effectiveness will depend on member states' efforts to develop policies and enact concrete measures, especially in the area of TVET and financing, to achieve the objectives. A study of four of the member states, namely Kenya, Somalia, Uganda and Djibouti, shows that progress has been made in achieving some of the policy measures. Kenya, Uganda and Djibouti have all enacted Refugee Acts and developed policies that stipulate refugees' rights. Among them, Uganda has some of the most progressive, inclusive legislation and policies on refugees (Hammond et al., 2019; International Labour Organization, 2020).

⁴ Eritrea's membership has been suspended.

as pastoralists (Intergovernmental Authority on Development, 2020). In addition, it is comprehensive as it is built on five principles: quality, accessibility at all levels, affordability, relevance of education, and inclusion of all disadvantaged populations. Other frameworks that focus on labour migration in the IGAD region and implications for the recognition of skills and labour market participation of migrants have been evaluated by the International Labour Organization (ILO, 2020).

National-level policies

All survey respondents named policies that target particular groups. The most common were policies of financial relief for the costs of tuition, food, accommodation or transport for young people in the general categories of 'disadvantage' or 'vulnerability'. There were also examples of national policies that target specific groups and of institutional take-up of national policy. Some of the institutional interventions are highlighted in Table 2. As a consequence of either a generalized targeting of disadvantage or a single-group target, very few policies focus on specific intersections of disadvantage.

Accessibility

This section focuses on strategies that make TVET accessible to disadvantaged youth. These pertain to financing and ensuring an inclusive learning environment. Beyond this focus on formal TVET, most young people, whether disadvantaged or not, access vocational learning through workplaces.

Therefore, attention to the accessibility of decent work, including vocational learning as an integral part of this, must not be neglected (McGrath, 2018).

Financing TVET

Financial support for the TVET subsector is very important in making TVET accessible in practice. Various financing modalities exist in different countries and regions and are dependent on the political economy of skills development. Five main financing mechanisms have been described that are used to increase access and retention in TVET and their implications for disadvantaged youth. These are universal free public TVET, targeting, student loans, work and study options, and support for private providers (Palmer, 2019).

Free public TVET

Article 2, Paragraph 3 of UNESCO's Convention on Technical and Vocational Education declares that 'states shall work towards the right to equal access to technical and vocational education and towards equality of opportunity to study throughout the educational process'. One of the strategies that has been adopted by some states to increase access to TVET for all is the abolishment of tuition fees at upper secondary level in public institutions. This strategy has been introduced in Ghana, Thailand, Kyrgyzstan, Uzbekistan, the Republic of Korea, Mongolia and Australia (UNESCO, 2013).

Making upper secondary education free is a useful strategy. However, other indirect costs need to be removed to ensure access in practice and the elimination of inequities. This is

Table 2 - National policies

Category of disadvantage	Country	Policy
Rural young people	India	Deen Dayal Upadhyaya Grameen Kaushalya Yojana ¹ http://ddugky.gov.in/
	Pakistan	Youth Skill Development programme https://www.cead.edu.pk/pmysdp%20i.htm
	Pakistan	Skills for All programme http://navttc.gov.pk/?page_id=8901
	China	Preferential policies in TVET institutions
Migrants/refugees	Canada	English language training
Young women	Pakistan	Quota on all TVET programmes
	India	Samagra Shiksha Scheme ² https://samagra.education.gov.in/
	Kenya	Gender mainstreaming in TVET institutions

¹ Deen Dayal Upadhyaya Grameen Kaushalya Yojana is an initiative of the Ministry of Rural Development in India. It is part of the National Rural Livelihood Mission and seeks to provide skills training for rural youths living in poverty.

² The Samagra Shiksha Scheme aims to improve the quality of education learning outcomes and ensure the delivery of progressive education (from pre-school to upper secondary).

extremely important for youth living in poverty in rural and urban areas and can be achieved with targeting, as described below. In addition, for migrants to benefit from free secondary education, administrative and legal barriers to accessing TVET need to be removed and prior skills and qualifications must be recognized. Care needs to be taken to ensure that free public TVET does not compromise on quality and lead to a reduction in support for private TVET provision.

Targeting

Targeting is the most widely used strategy to increase access to TVET for disadvantaged youth. It has two modalities: the provision of scholarships, stipends, training vouchers and other subsidies directly to individuals; and the allocation of funds, subsidies and other incentives to training providers (both public and private) or authorities to increase access for disadvantaged people (Palmer, 2019).

Nepal's financing system provides an example of implementation of the two modalities. Like many countries, Nepal operates an input-based financing model in which government allocates funding to public TVET institutions to cover salaries, equipment, etc. (Karki, 2012). This financing model is not tied to specific policy objectives and may not result in expanded access for disadvantaged youth (Palmer, 2019). Given this, scholarship schemes are provided for learners in public institutions, particularly those from disadvantaged backgrounds such as Dalits and conflict victims. In addition, the Council for Technical and Vocational Education and Training, the overarching body that regulates private and public TVET institutions, mandates private institutions to provide scholarships for up to 10 per cent of total enrolment to learners from low-income backgrounds (Karki, 2012). While these initiatives help to expand access, they are not enough to meet learners' financial needs, as there are many who need financial assistance.

Student loans

The provision of student loans to cover the cost of TVET is one of the areas that has long received increased attention in the literature (Ziderman, 2004). In spite of this interest, loan facilities, which are mostly available for tertiary programmes, are either non-existent or function poorly in low- and middle-income countries.

High-income countries have a range of loan schemes, including government sponsored, public-private and privately managed schemes (Welamedage, 2017). Public loans tend to be more favourable than private loans. This is because they are usually interest-free and associated with flexible repayment schedules. In some countries, repayment only begins after a minimum income threshold has been reached, which relieves learners of the pressure to service loans. Examples include Australia and the UK (for higher education, although the possibility of extending this to TVET is under consideration in 2021). However, some of these schemes are only available for certain levels of study.

India is an example of a middle-income country that offers a loan facility to learners pursuing vocational programmes at International Standard Classification of Education (ISCED) level 4 (Indian Overseas Bank, 2021). As part of the skills development agenda in India, the country has launched a skill loan scheme to provide finance for TVET learners. Loans are available for courses run by a range of providers, namely the Industrial Training Institute, polytechnics and training partners affiliated to the National Skill Development Corporation or Sector Skills Council, State Skill Mission and State Skill Corporation, leading to a certificate, diploma or degree (Indian Overseas Bank, 2021). Repayment schedules vary depending on the duration of the course. For courses longer than a year, repayment begins a year after completion. Unlike contexts where loans need not be serviced below a certain minimum income threshold, the repayment schedules for skill loans in India may put pressure on learners and deter people with learning difficulties and those from poorer households from obtaining loans.

Student loans are useful but are not accessible to all. They may be inaccessible to adult learners, part-time learners, refugees and asylum seekers. In addition, when they are accessible, learners need to cover living expenses, which makes additional support necessary for poorer households to take advantage of student loans (Welamedage, 2017). Furthermore, loans are sometimes linked to approved courses that may not be preferred by young people. Attempts to increase the participation of disadvantaged groups in TVET by eliminating cost will require a combination of the strategies discussed earlier. In a review of TVET loans in Europe, the European Centre for the Development of Vocational Training (CEDEFOP, 2012) highlights five of these considerations:

- » Development and properly supported enforcement of eligibility and risk assessment criteria well-targeted state guarantees
- » Harmonization of loans with well-targeted grants or subsidies
- » Introduction of more flexible repayment conditions and/or, where possible, introduction of income-contingent loans (analysis shows that the latter are the best at addressing the disadvantaged)
- » Proactive targeting policies to better address the needs of disadvantaged borrowers; mostly because of debt aversion, low numbers of disadvantaged learners apply for loans and are not all those most in need

The application of these measures may be difficult in contexts where there is a low capacity to manage the coordination and administration of funds and where an efficient tax administration and the data needed for targeting or monitoring are inexistent.

Work and study options

Many national TVET systems were initially built on models of block or day release for learners who were already employed as workers. However, over time, and particularly in less industrialized countries, this modality has become less common. As a result, many learners seek to augment their incomes while they are studying. To encourage TVET enrolment of students living in poverty, efforts are sometimes made to facilitate work opportunities for students to earn and cover part or all their tuition fees and other expenses. The work opportunities are geared towards income generation, but students expect them to be valuable or meaningful to their technical and vocational programmes. An example is the case of China where local governments and TVET institutions offered students work opportunities in factories. However, some problems were reported including 'internships' in areas unrelated to the field of study, harsh conditions and poor remuneration (Koo, 2016). This leads to the perception that work and study options designed to enhance access to TVET are a 'rather discriminatory dual-track option' (Palmer, 2019). While well-designed work integrated learning enhances learning outcomes, the reality for many is that the pressure to work to finance study negatively impacts academic performance.

Inclusive learning environment

An inclusive learning environment is one that accommodates the needs of all learners regardless of their background. As mentioned in the section on barriers, inaccessibility of the physical environment and a poor social environment in and around schools are some of the barriers to inclusion of disadvantaged learners in TVET. Examples of efforts to increase the physical accessibility of schools are the construction of ramps to aid the mobility of some learners, appropriate signage, and gender and disability friendly washrooms.

Many programmatic interventions and student initiatives have been introduced to raise awareness of and foster a conducive social environment in schools by addressing SGBV. An example is the 'Say no to violence against women and girls' campaign in TVET colleges in Vietnam. Codes of conduct for teachers are very common in efforts to promote inclusion, as in an example from Malawi⁵. Codes of conduct aim to instil professionalism or ethical standards in teacher practice and enhance the experience of learners by addressing misconduct such as discrimination and harassment (Poisson, 2009). Many countries have codes of conduct that are written and others that are implicit. A review of countries that are parties to the European Convention shows that most have codes of conduct at national, regional and school level (Golubeva and Kaniņš, 2017). From that review, six principles emerge that underpin best practices in eleven countries:

- » Stakeholder involvement in the development of teachers' codes
- » Integration of dissemination activities with teachers' education, training and professional review
- » Practical workshops and seminars are held for teachers with the involvement of professional bodies responsible for the code of conduct
- » Adequate disciplinary procedures
- » Regular reviews of the code
- » Professional bodies provide consultation and guidance on the application of the code

The six principles can be adapted to other contexts and are all essential to foster an environment in which learners feel safe, confident and valued. However, it is crucial to focus on awareness creation among teachers and learners, disciplinary measures, mechanisms for reporting complaints and support structures to assist learners who report issues of misconduct by teachers and learners relating to bullying, sexual and gender-based violence and discrimination. This emphasis stems from research on codes of conduct that shows that while they are widespread, they often fail to address the needs of learners due to low awareness, poor reporting structures and reluctance on the part of relevant stakeholders or offices to discipline misconduct especially relating to sexual and gender-based violence (Poisson, 2009; UNESCO and United Nations Girls' Education Initiative, 2014). In addition, it is important to encourage TVET institutions to develop their own internal codes that guide and regulate the conduct of staff and learners where these do not exist.

Lastly, the measures outlined above that make the physical and social environment in schools safe need to be complemented with wider societal efforts to address the safety and security of learners on their way to and from schools. Box 5 in the section on adaptability highlights the example of an initiative by Kepler to ensure the safety of its learners in Rwanda (see page x).

Institutional-level interventions to increase access to TVET

Table 3 presents examples of institutional-level interventions to increase the accessibility of TVET for young people. As shown in the table, most of the examples focus on financial support in the form of scholarships or provision of study resources, with some instances of targeted training or retraining opportunities. These point to the importance of multiple means for improving accessibility of TVET for disadvantaged learners. Interventions that alleviate immediate financial hardship, target specific groups for training or retraining, and promote progression to further education and employment are needed.

⁵ <https://www.stepmalawi.com/wp-content/uploads/2019/10/Instructor-Code-of-Conduct-Poster.pdf>

Table 3 - Institutional-level interventions to increase access to TVET

Category of disadvantage	Country	Institution	Intervention
Multiple/ general	Nigeria	CETVAR	Training/retraining programmes in areas of TVET for youth, retirees, women and disadvantaged groups for skill empowerment and poverty reduction
	Latvia	Daugavpils Construction Technical School	European Union structural funds project Support for Reducing Early School Leaving – PuMPuRS
	Colombia	Technological School Central Technical institute	Government programmes like Generation E, Ser Pilo Paga (Being Smart Pays), Reto U (Challenge U – for entrance to higher education)
	Haiti	Ecole Supérieure d'Infotronique d'Haiti (ESIH)	Mainly financial support, access to scholarships
	Comoros	Centre National Horticole	Learning opportunities for young women and men whose way of living is below average, especially in rural areas
Young people living in poverty	Chile	Duoc UC	Support for students with socio-economic vulnerability through devices such as: complementary feeding programmes, complementary transport programmes, complementary materials programme and an emergency programme, allocated according to vulnerability

Acceptability

Although public TVET is concerned with the relationship between learning and the wider world, it has received criticism for its lack of responsiveness to economic realities. In response to critiques of supply-driven TVET, skills mismatches, quality and the relevance of TVET programmes to employers' needs, efforts have been made to encourage public–private partnerships (PPPs).

The Shanghai Consensus insisted that partnerships needed to be recast in terms of responsiveness across the three pillars and in relationships with a wider range of social partners. In terms of TVET and disadvantage, our broad concern is how partnerships contribute to reducing disadvantage across learners' learning and careers. It is important to look

beyond the responsiveness argument that partnerships with economic actors necessarily improve TVET quality by increasing programme relevance. A three-pillar approach to acceptability offers a wider perspective on who learners are and what partnerships can do to meet their learning, work and life aspirations and overcome the effects of multiple forms of disadvantage.

Many respondents gave examples of connections between TVET and external organizations such as NGOs. However, most of these support young people in disadvantaged groups with their access to and progression within TVET. There were fewer examples of targeted policies for entry to employment. Some examples of external partnerships aimed at specific disadvantaged groups are given in Table 4.

Table 4 - Examples of external partnerships targeting disadvantage

Category of disadvantage	Country	Institution	Partnership
	Colombia	Technological School Central Technical institute	Programmes and projects with the local mayor's office Martires Action Plan of the Centre for Outreach and Social Projection
Young people living in poverty	Latvia	Daugavpils Construction Technical School	Cooperation with municipal institutions, for example, Daugavpils municipal social services to provide help for low-income families. Regular cooperation with learners' families to motivate learners and reduce risks of dropping out. Partnerships with employers help youth living in poverty to organize apprenticeships and workplace-based learning in companies.
	Latvia	Kuldiga Technology and Tourism Technical School	<ul style="list-style-type: none"> • IMA Auto car service • The Livelust association
Young women	Chile	Duoc UC	NGO Ingeniosas for the inclusion of young women in science, technology, engineering, and mathematics fields. Women in ICTs programme
	Nigeria	Yaba College of Technology	Women in Technical Education and Employment (Commonwealth of Learning)

The most common support mechanism for progression into employment that was listed in the survey was workplace training during TVET through placements and internships, followed by employment skills training within institutions. Very few of these mechanisms target specific disadvantaged groups. Nonetheless, there are exceptions. For instance, a government scheme in Kenya offers business loans to young migrants and refugees. In Latvia, the Inclusive Employment Guidelines 2015–2020 aims to tackle unemployment and is therefore likely to address the disadvantage that leads to unemployment. However, it is not solely focused on TVET. The largest scale intervention in this area that was reported in the survey was from India. Deen Dayal Upadhyaya Grameen Kaushalya Yojana has placed more than half a million rural youth in employment since 2014⁶. Although many respondents could provide overall statistics of progression from TVET into employment for all learners, none were aware of measures for tracking progression for the groups named in the survey.

The survey showed an awareness of access barriers for rural young people in TVET. However, there was only one example of partnerships or employment progression schemes aimed specifically at this group. This reflects a significant gap in the literature on TVET and PPPs, as most attempts to forge partnerships have a formal sector employer bias in ways that sometimes work against community groups in rural areas. Two case studies of initiatives in the area of acceptability are described in Boxes 2 and 3. Both examples show attempts to respond to the needs of the labour market, society and learners through partnership with a range of stakeholders.

The first example, Luminus Technical University College, demonstrates effective partnership between a TVET institution, the private sector and international funding organizations. In contrast, the second example, from Australia, shows the difficulties that community organizations encounter in a market-oriented VET system where smaller non-governmental organizations struggle to compete with larger registered training organizations for funding in a competitive training market. The latter case calls for careful consideration of the limitations of PPPs as highlighted in the Shanghai Consensus.

⁶ <http://ddugky.gov.in/content/about-us-0>

Box 2 - Case study of Luminus Technical University College (Jordan)

Luminus Technical University College is the largest TVET provider in Jordan. To increase its enrolment capacity, it partnered with the International Finance Corporation and the Islamic Development Bank to secure capital. Its partnership with these institutions has enabled it to transform its capacity and ‘focus on employability, pursue international accreditation, implement new teacher training efforts and develop innovative programmes’ (Baptista and Mignano, 2018).

Luminus developed partnerships with a range of national and international private companies and associations in Jordan to increase employability. The institution uses these partnerships to revise its curricula, making them more contextual and relevant to the needs of employers. Examples of courses introduced to enhance the employability of learners include language skills, soft skills, entrepreneurial skills and career readiness. Luminus also helps learners to secure internships, apprenticeship and jobs through the organization of job fairs and recruitment events. In its commitment towards female participation, it has negotiated with employers to create an inclusive working environment for female learners and graduates. Examples include allowing women to wear hijab to work and capacity building programmes for parents to address sociocultural norms that prevent women’s participation in the labour market. The institution is developing an integrated learning management system to undertake tracer studies (Baptista and Mignano, 2018).

The challenge for Luminus as a private institution is to balance profitability, quality and affordability to expand access for learners from low-income households. Some of the opportunities created for learners include flexible programmes that allow them to work part time to cover their tuition. About half of its learners work part time. Others include a lending fund and affordable educational loans of about 5,000 dollars for male and female learners. Luminus supports learners by paying the first-year interest rate. Furthermore, a range of scholarships (covering almost half of its learners) are offered for tuition, including a food and transport allowance for vulnerable learners. For Syrian refugees, the institution sought grants of over 37 million dollars from a range of organizations and the Jordanian government to cover the full tuition of Syrian refugee learners. This resulted from a realization that partial tuition did not expand access for the neediest people. To bridge the barrier of distance, a new branch of the institution has been opened in Irbid, one of the largest residential areas for refugees in Jordan.

Source: Baptista and Mignano (2018)

Box 3 - Case study of Waltja Tjutangku Palyapayi (Australia)

Waltja Tjutangku Palyapayi (Waltja) is an Aboriginal NGO based in Alice Springs, at the centre of the desert region of inland Australia. Waltja was established in 1997 and is committed to improving conditions of Aboriginal communities by facilitating service delivery, identifying training needs of indigenous communities, advocating for improved education and training, and supporting employment creation. It partners with government and non-governmental organizations to achieve its goals.

Waltja registered as a training organization to help reduce some of the challenges in the delivery of accredited programmes in aboriginal communities such as the provision of culturally relevant programmes. However, the institution has not been able to deliver formal accredited programmes as envisaged, due to challenges in meeting the stringent requirements of the Australian Training Quality Framework. Given this, it has incorporated its 'training delivery workshops and hands-on support work in the childcare, youth and disability services through on-the-job training'. While this enables participants to access formal accredited training, Waltja cannot access public funding, in contrast to other registered training organizations that offer accredited training programmes. It therefore supports other registered training organizations to deliver training to indigenous communities through 'explicit multi-lingual intercultural mediation of programmes'.

Source: Lawrence (2006)

Adaptability

This section discusses some of the strategies that are being used to adapt TVET to learners' needs. The discussion focuses on strategies that make TVET flexible to accommodate the gendered needs of learners and the needs of those with disabilities, remote learners, migrants, out-of-school youth and those in poverty. As highlighted in the framework for categorizing strategies, the use of ICT needs to be seen as building on other elements of accessibility and acceptability. This is illustrated with examples in Boxes 4 and 5.

Curricular and pedagogic adaptations

In line with efforts to make TVET more inclusive, some countries have embarked on gradual reforms to make their curricula, learning materials and assessment reflect the diversity of learners. Efforts include mainstreaming gender into the curriculum and revising the curriculum and learning materials to make them culturally and linguistically relevant to specific groups of learners and appropriate for learners with SEND. While these efforts are instrumental in addressing gender stereotypes, norms, prejudices and discrimination in TVET, there is a disproportionate focus on gender mainstreaming to the relative neglect of the development of a culturally relevant curriculum. Efforts by UNESCO to link its cultural work on intangible cultural heritage and its educational work on TVET is promising in this area (UNESCO-UNEVOC, 2019).

The vocational pedagogies of teachers and trainers are central to quality teaching, the inclusion of learners, and learner performance and progression in TVET. In most countries, vocational pedagogy and other 'inclusive modules' such as gender, special education needs, multiculturalism and educational psychology are addressed through pre-service and continuing professional development (UNESCO-UNEVOC, 2020b).

In the TVET literature, learner-centred pedagogy is increasingly recognized as effective in meeting the needs of disadvantaged learners (Doherty and Aneyo, 2019; Lamb et al., 2018). However, there are inconsistencies, different conceptualizations, usages and understanding of the term in the literature and in practice (Bremner, 2020; Schweisfurth, 2013). These make it difficult to evaluate and compare the effectiveness of learner-centred pedagogy for different learners across different contexts (Bremner, 2020). In a meta review of the definition of the term, Bremner (2020) developed a framework that helps to conceptualize it and provide some clarity for policy-makers, practitioners and researchers. This is illustrated in Figure 8.

Figure 9 – Visual representation of the conceptualization of the learner-centred approach



Source: Bremner, 2020

In Figure 8, definitions of learner-centred approaches have been grouped into six categories: formative assessment, adapting to needs, power sharing, autonomy, active participation and relevant skills. Areas of intersection show the connectedness of the categories and provide the basis for exploring the benefits of each one. Contrary to narrow definitions of learner-centred pedagogy, the categories provide some flexibility. This can help practitioners to adopt and adapt them as relevant to their subject areas, learners' needs, and teaching and learning contexts. For example, consideration of learners' prior knowledge in 'adapting to needs' may be more suitable for refugees, asylum seekers and internally displaced migrants and young people in rural areas. Autonomy may not be useful for young people with learning difficulties who may require more contact hours, assistance with notetaking, etc. Consequently, the flexible nature of the conceptualization of learner-centred pedagogy responds to critiques regarding its applicability to different learners and its cross-cultural relevance, particularly in low-resource contexts (Schweisfurth, 2019; Sunzuma et al., 2012).

In a review of vocational pedagogies in Europe, the European Centre for the Development of Vocational Training (CEDEFOP) identified five benefits of teachers' use of a combination of learner-centred pedagogy. The dimensions used to assess the impact of learner-centred pedagogies map onto the six categories highlighted above. Two categories in CEDEFOP's list that are not included or clearly articulated in the figure above but are relevant to TVET are 'formation of vocational identity' and 'reconciliation of subject-oriented and thematic material'. The former is explained as 'skills and knowledge [are] connected to the development of attitudes, beliefs and values associated with a vocation or occupation' (CEDEFOP, 2015). The latter refers to the connectedness of 'subject learning and other learning experiences for the learner, for example, theoretical knowledge is applied in practical tasks' (CEDEFOP, 2015).

Evaluation of the impact of learner-centred pedagogy shows that a combination of categories in teachers' pedagogical practices leads to high motivation and engagement, learner satisfaction, low drop-out and retention, progression, and high achievement (Lamb et al., 2018; Wyn et al., 2004). Nonetheless, more evaluative studies are needed to understand how learner-centred approaches affect the achievement of disadvantaged youth in TVET. This will help with knowledge sharing, support strategies and the development of interventions to promote the inclusion of disadvantaged youth in TVET.

Survey participants' responses show that more should be done to provide teachers with the support needed to be inclusive practitioners. For example, most respondents noted that they had received training on how to support disadvantaged learners. However, the learning environment including curricula and learning materials do not allow them to adequately support learners' needs. In addition, in responses to the question on resources for teachers to use with vulnerable learners, it could be deduced that

inclusion was understood in the context of learners with SEND. Respondents to this question were mainly TVET practitioners and people representing TVET institutions. In addition, they mentioned limited funding for provision of these resources. For example, a respondent from Bangladesh stated that additional resources are provided only in specialist institutions for learners with disabilities, while a respondent from Italy described being reliant on staff or donations for any additional resources.

Technological responses

ICT is one area where effective strategies have been developed to address the intersectional needs of disadvantaged youth. The COVID-19 pandemic, digitization of the economy and the changing world of work have led to the need for more innovative, transformative ways of delivering TVET, which differ from and complement traditional approaches to TVET delivery. Some of the ways in which ICT is being utilized in TVET include curricula integration, assessment and flexible and blended learning (Mead Richardson and Herd, 2015).

In Hong Kong, a peer-reviewed repository of open educational resources has been created through the VPETCity project to enable access to contextually relevant, quality material (Wang et al., 2018). In jurisdictions with a similar qualifications framework, open educational resources (OERs) help to reduce the cost for states and institutions as contents can easily be curated and reused (Commonwealth of Learning, 2020). In addition, OERs enable smaller institutions to deliver quality training to learners by having access to centrally developed, validated material (Commonwealth of Learning, 2020). For example, the Open Polytechnic of New Zealand has made its online resources and platform available to other TVET institutions (Commonwealth of Learning, 2020).

While digitization gives learners access to a wide range of TVET courses, practical aspects of programmes are difficult to deliver online. Consequently, blended learning is increasingly being embraced as a means of combining face-to-face lessons, physical practical experiments or workplace activities with online or technologically enhanced learning. Blended learning also has the potential benefit for some disadvantaged learners that it reduces the time they need to spend in institutions. Technologically enhanced learning, including technological applications such as virtual reality, augmented reality and simulators, is being explored increasingly. However, these applications remain of limited reach globally, and particularly in low-income countries. This is likely to change: for example, there is a pilot programme using virtual reality in non-formal TVET in Uganda.

The delivery approaches discussed above help to bridge the intersectional needs and barriers that learners encounter in accessing and progressing in TVET. For some people living with disabilities, online learning is convenient. It helps to accommodate some forms of disabilities such as those

relating to mobility and difficulties grasping and engaging in discussions in class (Case and Davidson, 2011). In addition, it saves time commuting to school. This is particularly useful when the physical environment is not inclusive. Furthermore, online learning can provide a feeling of safety and the use of assistive technologies can enhance learning. Box 4 describes a school that has adopted a holistic approach, including the use of ICT to address the needs of learners with SEND.

Besides this example, online learning has some advantages for youth in poverty, those who are geographically distanced from TVET institutions such as migrants and rural youth, and female learners. For all these learners, the common advantage gained from online learning relates to the flexibility it offers to fit learning into other activities. For example, female learners can escape gender-based violence in commuting to schools and organize their studies around caring responsibilities. Youth in poverty who engage in livelihood activities can fit studies into non-working hours and geographical barriers are equally bridged with the opportunity to access preferred training online. Online learning is less costly and therefore more accessible. Unsurprisingly, there have been calls by technology companies, donors and government officials to digitize as much of the curriculum as possible. However, caution is needed in the balance between commercial and learner interests.

Flexible learning approaches also have some disadvantages. First, while courses are less expensive, the cost of data can be high for youth in poverty. This is particularly true for media-rich contents such as videos. Second, learners who do not have stable electricity, internet services or infrastructure may find it hard to access online resources. Third, online learning increases the feeling of isolation among some learners. Fourth, some online contents are not accessible or suitable for learners with SEND. Fifth, literacy in ICT is required to meaningfully engage with online resources and technological platforms. These challenges can be reduced with more support for learners. Box 5.5 presents an example of a flexible learning approach by the Connected Learning Consortium that seeks to address the intersectional needs of disadvantaged youth.

As Latchem (2017) notes, the 'teacher's role will need to be redefined from that of an instructor to that of constructor or facilitator of learning environments'. Latchem's remark was corroborated in a recent UNESCO-UNEVOC study on the future of TVET teaching. The study highlighted five transversal and applied skills that it is important for teachers to acquire: problem solving or critical thinking skills; digital or ICT skills; entrepreneurship or creativity skills; teamwork/ collaborative skills; and science, technology, engineering and mathematics (STEM) skills (UNESCO-UNEVOC, 2020a). In all of this, there needs to be far more attention to the challenges and possibilities of adopting new approaches in work with disadvantaged learners. It is essential that the individual needs of all such learners are considered, not just stereotypical views of what different groups require.

Box 4 - Case study of Milan Petrovic, a special education school in Serbia

Milan Petrovic is a primary and secondary school in the city of Novi Sad in Northern Serbia. It has a population of about 1,400 learners and 400 support staff consisting of special education teachers, occupational therapists, speech therapists, music teachers, art teachers, crafts educators, psychologists, social workers and doctors. The school is open to people of different nationalities and religions. Its curriculum is delivered in four languages: Serbian, Slovak, Hungarian and Romany. In addition, two foreign languages, French and English, are taught. It offers Christian and Islamic religious lessons to learners of faith. Milan Petrovic is very well equipped with learning resources, internet, computers and assistive technologies or equipment. Other facilities in the school include craft workshops (about 18 in total), a gym, a sensory garden and room, a playroom, dormitory and massage room.

The school has developed partnerships with other schools and organizes activities including exchange programmes that allow learners in the special school to engage with learners in a mainstream school. The teachers in the school undertake continuing training in ICT. A flexible learning approach is adopted that allows for face-to-face and remote online learning. This is supported by a learning portal called Milance, which functions like a learning management system. Assistive technologies are used to support learners in diverse ways, including in speech impairment. To cater to learning needs, teaching is personalized and organized according to an individual educational plan. This plan is revised constantly, at least once every three months, to reflect changes in individual needs. More information about the school can be found on the website [ŠOSO Milan Petrović – Početna \(smp.edu.rs\)](http://ŠOSO Milan Petrović – Početna (smp.edu.rs)) and a link to the Milance portal: [Миланче \(milance.edu.rs\)](http://Миланче (milance.edu.rs))

Source: Brolpito et al. (2016); Milan Petrovic (2017)

Box 5 - The Connected Learning in Crisis Consortium

The Connected Learning in Crisis Consortium is an education consortium that 'aims to support the provision of quality digital higher education in contexts of crisis and displacement by sharing and disseminating knowledge, experience and evidence; developing innovative and good practice; and ensuring accountability to learners and their communities in order to foster self-reliance' (Connected Learning in Crisis Consortium, 2017). The consortium, which is led by UNHCR and InZone, an academic centre at the University of Geneva, is made up of thirty-three members and programmes including co-leads. Among the partners are the Luminus Technical University College in Jordan, the Open University in the UK, the University of Nairobi, Purdue University, Jesuit Worldwide Learning and the Syrian Youth Assembly.

The consortium leverages the support of partners to increase access to accredited higher education programmes. Members commit to the consortium's quality guideline checklist on access, learning pathway design, connected learning pedagogy and academic support (Connected Learning in Crisis Consortium, 2017). It is committed to increasing retention and the learning outcomes of learners and provides financial, psychosocial, language and academic support. In the area of learning, Connected Learning programmes adopt a blended approach with on-site and online support for learners. To maintain a high retention rate in online courses, InZone's learning ecosystem is drawn upon. This collaborative learning eco-system aims to address challenges to online learning such as learning culture, language of learning and ICT literacy (Connected Learning in Crisis Consortium, 2017). In view of this, learners are placed in a support team comprising learners, lecturers and course coordinators, bilingual online tutors and bilingual on-site facilitators (O'Keeffe, 2020).

Through the support of Borderless Higher Education for Refugees, young women on Connected Learning's courses are put into a mentorship programme where they are connected with mentors across the globe to support them through their education. In Rwanda, a partner institution named Kepler has established a 'safewalkers' programme to ensure the safety of learners to and from classes on learning sites. Young women are taught preparatory courses to enable them to meet the requirement of higher education programmes. In addition, all learners are provided with psychosocial and socio-emotional support, and academic and career counselling to enable them to succeed in their programme (Connected Learning in Crisis Consortium, 2017).

Through the support system created by the consortium, learners can navigate online learning, acquire the skills and knowledge needed to be independent learners and use ICT to acquire and generate new knowledge to solve problems in their communities. The consortium has supported more than 7,500 disadvantaged learners in over 21 countries to pursue accredited higher education programmes (Wright, 2019).

ICT is an area in which effective strategies can be developed to meet learners' needs. It needs to be complemented with other support services. With other supportive structures such as strong institutional leadership, institutional policies, required infrastructure and changes in the attitudes of TVET teachers and learners, a strong impact can be achieved.

Chapter conclusion

Although this chapter has treated the 4As individually, it is apparent that they overlap and work in synergy. Policies and funding need to be combined with broader cultural change and institutional and TVET system responses that address learning technologies, physical learning environments, curriculum and pedagogy.

6. Conclusions

It is widely accepted that TVET should focus particularly on the needs of disadvantaged people. What is less clear is agreement on who is included in this category and how to support them. This paper has used a very pragmatic focus on some groups that are widely considered to be disadvantaged, including refugees/migrants, young women, youth in poverty and rural youth. As stressed by this paper, these categories are not mutually exclusive and the effects of multiple forms of disadvantage need to be considered. However, the complexity of the notion of TVET for 'disadvantaged youth' is a challenge. At conceptual level, this means that there is still very little literature that looks at TVET responses across dimensions of disadvantage. At practical level, as reflected in the survey responses, 'disadvantaged' is often interpreted very narrowly and in ways that are insensitive to intersectional effects of disadvantage.

The term 'disadvantaged' could be associated with deficit language. An example of such language is how the English term 'NEET' (not in education, employment or training), beginning as it does with 'not', is used and positions learners as a problem to be solved rather than human actors. Equally, despite the attention given to the term in the wider education community, 'inclusion' clearly does not have a shared meaning across international TVET, as shown by a number of survey responses.

This paper began by considering UNESCO's TVET work of the past decade, starting with the international congress in Shanghai. Its development of the notion of the three pillars (economic, equity, environmental) remains crucial to TVET work. Through this, UNESCO insisted that TVET is not simply about preparing workers but is focused on how this contributes to the greater goal of sustainable human development. Shanghai also marked a more explicit focus in UNESCO's TVET work on a rights-based approach. Even though the right to TVET is less legally established than the right to schooling, the rights-based approach brings important perspectives to thinking about TVET and disadvantage. This informs our use of Tomaševski's 4As as a key analytical tool:

- » Availability captures the recognition of people's rights to education and training as specified in international, regional, national, state or federal legislation or regulations and policies
- » Accessibility focuses on the conditions that make it possible for learners to pursue and progress in and through TVET
- » Acceptability relates to the provision of quality TVET, as defined by key stakeholders, most importantly learners
- » Adaptability builds on accessibility and acceptability and focuses on the extent to which TVET can be tailored to learners' individual needs and adapted to changing trends in society and the world of work

This paper then used these lenses alongside a focus on key barriers to learning and life success for disadvantaged TVET learners as reflected in the literature and the survey. Issues here include:

- » **Language barriers**, especially for refugees and migrants but significant challenges can also be expected for linguistic minorities. Some literature notes that the use of colonial language as the language of instruction in several TVET systems acts as a barrier to access and success.
- » **Sociocultural barriers**, especially with respect to gender norms and related caring responsibilities. The survey data were polarized on this issue but it seems prudent to follow responses that did see an issue here. The survey did not go beyond a traditional notion of genders/sexualities but the study was aware, in English and other contexts, of further barriers that are experienced by a significant number of learners who self-identify in other ways around gender and/or sexuality (UNESCO, 2016).
- » **Financial barriers** are widely identified and multifaceted. Some systems have introduced bursaries and other financial support mechanisms. However, it is important to be mindful of how important such sources of income may be for the poorest households and avoid the assumption that all such income will be available for learners to use as intended. Strikingly, though average levels of disadvantage in the public TVET cohort are higher than in the schooling or higher education cohorts, TVET is less likely to be fee-free, which reflects the focus of free education campaigns on compulsory education.
- » The importance of **inclusive learning environments** is well-established. However, the work of the UNESCO Global Education Monitoring Report team, among others, has made clear the uncomfortable truth that many learning environments are exclusionary, whether by design or not. Exclusion goes beyond feeling excluded to very real problems around violence in and on the way to the institution. Sexual violence is too common an experience for female TVET learners globally, but we should also remember the effects of gang and drug cultures.

Each of these barriers (and they may be experienced in combination) plays into learners' decision-making processes along their vocational learning journey and can be key in 'failure'. Dropping out may have less to do with the moral failings of the individual learner and more to do with considered decision-making when faced with complex realities. Moreover, young learners often have limited say in such decisions, particularly if they are female, and sociocultural barriers may be obscured by more apparently neutral considerations of money or other resource constraints.

In the face of these challenges, there are examples of promising practices in TVET, but it is clear that there is still much to be done.

Regarding availability, international policies continue to stress inclusion of all in TVET. At regional and national levels there is progress, for example in the Djibouti Declaration on refugee education, India's focus on rural TVET and Pakistan's quotas for female learners in TVET. While single-issue focused, these policies offer specific commitments to making TVET more available to disadvantaged groups.

Policy commitments are essential but need to be backed by practical interventions to increase accessibility. Many of these are finance focused. Fees for TVET institutions have been abolished in a number of African and Asian countries. Alternatively, funding has been targeted to specific disadvantaged groups (such as disadvantaged castes) through scholarship programmes in countries such as Nepal. Learning loans have been advocated for many years but remain controversial. One reason for the controversy is the lower take-up among the most disadvantaged. Similarly, earning while learning is very attractive, but it is much more challenging to maximize the pedagogic benefits of this in highly informalized labour markets and skills systems. There are concerns about the quality of many work opportunities for TVET learners, including unpaid internships in advanced economies. Again, access to such opportunities is often correlated with existing patterns of advantage and disadvantage.

Accessibility is also related to being able to attend a vocational learning institution safely and being able to access learning. SGBV remains a scourge globally. While many countries (such as Malawi and Viet Nam) have developed new codes of conduct to tackle this within institutions, it is evident that this is a far wider societal challenge.

Acceptability thinking has been dominated by an employer focus. This is important but must be considered critically through the lens related to the needs of disadvantaged learners. An acceptability focus requires a consideration of how TVET meets the quality learning needs of all stakeholders, and learners must be central to this. In the field of targeted programmes aimed at disadvantaged groups, NGOs are far more prominent than in the TVET mainstream, and issues of coordination between NGO and state initiatives requires more thought. There are promising practices in a number of programmes to reach specific groups, as illustrated in the boxes on Jordan. However, across many initiatives there is a need for more rigorous tracking of learning, life and livelihood outcomes.

Adaptability in the survey responses is understood primarily in terms of how learning systems are made more responsive to the needs of disadvantaged learners. This includes what a number of countries have done to develop policies for accessible buildings. It incorporates efforts to make curricular materials more accessible. The survey and previous work by UNESCO-UNEVOC on inclusion points to a growth in attention to accessibility issues in initial vocational teacher preparation, but embedding this in actual classroom/workshop practice is more challenging. Many have realized that new learning technologies can support individual needs. There is great potential here, but we must also be aware of global and national digital divides. One example of adaptability to the particular needs of disadvantaged learners is presented in the box on a Serbian initiative.

Part of the utility of this paper's approach for thinking about TVET and disadvantage is that it reminds us that we are talking about a trajectory for (potential) TVET learners, not a single moment. Application, enrolment, retention, success and labour market insertion provide moments at which some will not be able to access the next step in their planned journey, while others will be discouraged from taking that step for a variety of reasons.

It is also important to remember that learners come with individual experiences, resources, structural impediments and aspirations. The key is to start from the learner while remembering that much of what limits their possibilities is structural and needs to be tackled as such.

Thinking about these complexities of circumstances and trajectories is essential if public TVET systems and providers are to be active agents in promoting the learning and human flourishing of the communities they are supposed to serve. Thus, part of planning, monitoring and evaluation needs to be focused on questions about how far policies, systems and institutions are capability-enhancing.

Of course, in focusing on what TVET can do to address disadvantage, it is important to remember that the world of work may not be equally progressive. Moreover, writing in a world still struggling with a pandemic, it is important to ensure that COVID-induced disadvantages are addressed to mitigate the risk of disadvantage in TVET increasing rather than decreasing.

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