



ARTICLE

Short Learning Programmes for Skills Development Beyond COVID-19

Israel Kibirige

University of Limpopo, Sovenga, South Africa

ABSTRACT

The COVID-19 pandemic set a New Normal (NN) and altered the modalities of performing different activities. Several activities came to a standstill, resulting in job loss and school closure. New dynamics in the labour market emerged, such as Working-From-Home (WFH), Virtual Meetings (VM), Social Distancing (SD), and Downsizing (DS). These dynamics altered employer–employee relationships, which espoused new skills. The strategy was to change policies to work from home and use Information Communication Technology (ICT). However, many people were not adequately skilled to face the new challenges. This paper aims to describe what short learning programmes (SLPs) are, why institutions offer them and examine why individuals participate in SLPs. The author uses the Capability Theory (CAT) and the Critical Reality Theory (CRT) to explain why SLPs are crucial to face employment challenges beyond COVID-19. The main findings are that SLPs are necessary for everyone to be re-schooled and attain new skills needed at a specific time. Hence, many institutions offer SLPs to various learners. The contribution of this paper is the advocacy of SLPs to increase individuals' employability. Hence, SLPs are depicted as a means for skills development beyond COVID-19.

KEYWORDS

knowledge, capability, unemployment, skills, development, short learning programs

Introduction

As the world attempted to come to terms with globalization and the Fourth Industrial Revolution (4IR) changes, COVID-19 interrupted all activities, including education (Schleicher, 2020). COVID-19 affected schools' time, employment, and the quality and quantity of education. Amidst all this pandemonium, it is incumbent upon the education system to produce adept individuals to meet the unprecedented changes. This situation is comparable to the United States of America economic depression between 1929 and 1941, where the New Deal was introduced to save the education system (Fass, 1982). The New Deal outlined the responsibilities of federal institutions to manage education affairs in their local environments for the less fortunate. The Deal powered teachers from the less fortunate groups to benefit from the educational funds. Likewise, individuals must have the knowledge and skills to live, work, and thrive during unexpected changes. It is no wonder that society and personality change are needed to survive beyond COVID-19 and meet the challenges of the 4IR and other Industrial Revolutions (IRs).

In our situation, SLPs contribute to society and personality change to equip individuals with the proficiencies they need to face new challenges. Everyone needs skills to enhance personalities and provide societal changes in these changing times. The changes from globalisation, 4IR, and the COVID-19 pandemic (Beraza, 2018; Schwab, 2016) have drastically altered the workplace environment towards increased use of technology (Beraza, 2018) and created the New Normal (NN). Therefore, Information Communication Technology (ICT) studies through SLPs would be recommended to meet 21st century needs.

Background

Globally, during COVID-19, institutions changed from contact to virtual learning (Georgiadou et al., 2020), and governments like Russia provided funds for ICT infrastructure (Nie et al., 2020; Revinova & Lazanyuk, 2021) and many others for sustainable development. In South African education after 1994 (the year of the end of apartheid), a lifelong learning framework using SLPs was adopted to redress the ills in education and attain social justice for everyone (Walters & Daniels, 2009). SLPs are used in Continuing Professional Development (CPD) in education institutions to learn specific skills (Melesse & Gulie, 2019; Thwala, 2021) and may attract monetary remunerations (Woessmann & Ludger, 2016) and enhance job satisfaction.

Theoretical Framework

To fit in the NN in society, the author uses the Capability Approach Theory (CAT) and Critical Realist Theory (CRT) as theoretical frameworks to clarify several issues regarding SLPs. CAT is a normative framework for human life quality and development (Robeyns, 2006) and was used to explain individuals' lived experiences in choosing

courses. It depicts what individuals are doing and their being (Nussbaum, 2000). It also deals with what individuals achieve. Individuals embrace human development in two folds: the ends and the means of development. The latter is vital, and individuals are directly or indirectly integral to all economic production to live and sustain others in society (Sen, 1989). Individuals need skills to be employable; hence, SLPs can upskill them in job opportunities and get better working conditions that improve their quantity and quality of life.

Sen (1992) presents two concepts of the CAT: functionings and capabilities. Functionings are the various roles an individual may undertake. Functionings are diverse and complex given that they range from individual to community-based and material to mental-based (Terzi, 2005). Functionings make up of intrinsic factors such as curiosity and desire to succeed. Community-based values like attaining education or skills command respect in any community (Gaskel, 2020). Capabilities recognise human diversity (Sen, 1992) in three aspects: individual characteristics, external environment, and capacity to transform the available resources (Terzi, 2005). Also, linking diversity to human justice is integral to human development. Therefore, to manage human development, one needs to manage the diversity of individuals regarding their functionings (achievements of a person) and capabilities (ability to achieve functionings) (Hinchcliffe & Terzi, 2009). L. Terzi (2014) argues that justice in institutions should be assessed according to individuals' diversity and let individuals benefit equally. Thus, this paper focuses on using SLPs to increase individuals' capability sets (Sen, 1989) and improve humans' ability and freedom to choose what to do and to why do it. Hence, SLPs can be a panacea to society and personality development.

The researcher used CAT to understand persons as "agents". These agents make up diverse goals for the community: motivations, habits, and sympathy of the individuals and the community (Sen, 1997). Hence, CAT has implications for the financial liberation of individuals related to the model of Homo Economicus since employment guarantees specific earnings. The robust and user-friendly model incorporates social norms, learning and cooperation, and interactive choices (Ng & Tseng, 2008). These interactive choices relate to individual behaviours in sociology, despite the criticism labelled against the model for being monolithic, which suggests enriching one person. This monolithic view can affect others as one person can be a resource to other people. Dealing with an individual can yield good dividends when everyone collaborates with another, making a chain reaction and benefitting many individuals. Therefore, the author argues that an individual is both a Homo Economicus (individual) and Homo Sociologicus (group of individuals—the society) (Ng & Tseng, 2008), given that all depend on one's self-interests. Considering the social view of norms (Weale, 1992), eight tenets are added to the social component that cannot be ignored as they are integral to the agent's decisions. These tenets include motivation for acting, rationality, freedom, morality and responsibility, action learning, human relations and social bonds, emotions, and preferences (Weale, 1992). All these tenets contribute to the individuals' decisions to take courses in formal schooling or through SLPs.

The author theorises that the SLPs dynamics' functionings and agents can be between the host institutions and the SLPs learners with the above social issues. CAT, as a normative theory dealing with functionings and agents in four specific contexts: companies, academic institutions, individual volunteers, and Non-Governmental Organisations (NGOs), should sponsor SLPs to cater for all individuals in society. Unfortunately, no attention has been given to those four contexts. The author advocates for raising funds from such sources to support SLPs to cater for the less fortunate in society.

CAT describes what the object (SLPs) is about, but it does not explain why students and institutions engage in SLPs. Neither does it explain why the less fortunate are not included in SPLs. Thus, there is a knowledge gap about SLPs. This gap can be addressed using the Critical Realist Theory (CRT) to explain why SLPs are offered and why all individuals, irrespective of their education and financial status, should engage in SLPs. CRT focuses on the structure and its organisation. Learning should be fun and interesting to prepare all individuals for future life because the acquired knowledge and skills are needed in all areas. In SLPs, learners attain knowledge and skills to function in a novel format to bring societal change and meet life's novelties (Figure 1). The aim was to investigate SLPs' roles beyond COVID-19. Therefore, the objectives are to (a) explain the concept of SLPs, (b) examine why institutions offer SLPs, and (c) examine why individuals participate in SLPs.

What are SLPs?

SLPs are offered in many institutions worldwide and are significant for lifelong learning (Melai et al., 2020). SLPs have different names, such as Short Professional Course in Spain (Sampaio et al., 2022) or short courses in the USA (Williamson & Heinz, 2021), France (Theodossopoulos & Calderon, 2021), the United Kingdom (Melai et al., 2020), South Korea (Kumar et al., 2022), Australia (Sokoloff, 2021), and Russia (Guzal, 2021).

In South Africa, SLPs have been recognised as an important educational component. The South African Qualifications Authority (SAQA) defines SLPs as short courses and skills programs within short learning programs (South African Qualifications Authority, 2004, p. 14), formal or informal. The courses offered are less than 120 credit hours, which can be competence-based, where credits are awarded according to the specific assessment criteria or attendance-based with no credits awarded. Coombs and Ahmed (1974) define formal learning as taking place in an "institutionalised, chronologically graded and hierarchically structured educational system" (p. 8). Formal learning programs require applicants to exhibit basic attainment before enrolling for a course that culminates in certified qualification (La Belle, 1982). Conversely, Coombs and Ahmed (1974, p. 8) contend that informal learning is a "lifelong" procedure to gain knowledge, skills, and attitudes in different settings. This type of learning occurs in different settings (Brookfield, 1986), including informal settings.

Why Individuals Participate in SLPs

The Organisation for Economic Co-operation and Development study (OECD, 2018) shows that 32% of the jobs will change how they are enacted, while 14% will be automated. Increased use of technology demands that people be trained before using technology. Something more dramatic is that only 41% of adult graduates may find work leaving the majority, 59%, with no employment (OECD, 2018). It requires innovation to find how to absorb these graduates. One approach is to re-skill them through SLPs. For example, 66% of unemployed youths (Statistics South Africa, 2019) can be re-skilled through SLPs and take up or create employment.

Similarly, teachers who graduated from universities a few decades ago (20 years) may not have used computer simulations. SLPs should equip such teachers with technology to foster learning. ICT use in schools have reported positive gains in New Zealand even before COVID-19 (Brown et al., 2018). Recent studies shed the light on the current state in Brazil (Tomczyk et al., 2020), Russia (Coutts et al., 2020; Guzal, 2021), India (ILO & OECD, 2020; Kanwar & Carr, 2020), China (Fang et al., 2022) and South Africa (BRICS) (Kibirige & Bodirwa, 2021). SLPs will remain an indispensable tool for education beyond the pandemic.

Why Institutions offer SLPs?

Why do institutions offer SLPs? Why are SLPs necessary for everyone in the 4IR and beyond? The author argues that current job market uncertainties during the 4IR, especially during the onset of COVID-19, need to be addressed. COVID-19 has ushered in and amplified concepts such as NN and Working-From-Home (WFH), reducing human resource duties as everyone worked from home. Virtual Meetings (VM) minimised jobs for contact meeting logistics, Social Distancing (SD), and Downsizing (DS) (Bartik et al., 2020) created challenges. These and many other dynamics have altered employer–employee relationships and created uncertainty about what skills will be needed tomorrow. It has set in job instability (Béland et al., 2020) and no one can tell who will be jobless with the next dynamic change. Today, universities and companies offer SLPs to students or employees to improve production quality. It means anyone can be a candidate for SLPs in the ever-changing environment: teachers, doctors, et cetera.

Lifelong learning is in line with the Andragogy theory, which postulates that there is no end to learning as long as one lives. Thus, the theory explains the role of SLPs in educating individuals to attain knowledge and skills to succeed in the ever-changing environment. The author agrees with Albert Einstein in this context: “Once you stop learning, you start dying” (as cited in Kafle, 2019, p. 5). Unfortunately, according to OECD (2018), only 14% of the adult population engage in upskilling courses, SLPs, in the South African setting, suggesting that more needs to be done. In this paper, the author argues that individuals must be re-schooled and equipped with knowledge and skills. Also, the author contends that SLPs can be the panacea to position individuals ahead of the dynamic changes. Such dynamic changes point to the effects of COVID-19 on schooling and the notable changes caused by IR4 and other IRs. Therefore, SPLs can assist governments in reducing unemployment by re-skilling or upskilling individuals to meet the current context (Belsky & Mills, 2020).

Notwithstanding the need for higher education, many with less educational attainment do not get employed. For instance, 6.7% of people with degrees were unemployed in 2018 compared to 28% with only matric attainment and 16% for Technical Vocational Education and Training (TVET) qualifications (OECD, 2018). It suggests that the more one is educated, the more chances of employment. It is more interesting considering we live in a knowledge-based economy, which makes adopting a Lifelong Learning approach crucial.

SLPs Have Not Been Inclusive

While SLPs have been used in the past, their use has not been inclusive, and there is a dearth of literature about their effectiveness (Hanbury et al., 2008). This dearth may be attributed to the long period it may take to see the impact, and results from such impact studies can better be gathered in longitudinal studies. For instance, SLPs were employed to build the capacities of teachers in introducing the Outcomes Based Education (OBE) curriculum. However, studies indicate they were ineffective in improving teachers' professional competencies to roll out the effective implementation of the new curriculum (Jansen & Taylor, 2003). The teachers were not oriented on what to teach in OBE, so many clerical and administrative tasks took teachers' time for preparation and teaching. During the workshops, they were given limited time to get a paradigm shift to implement the curriculum. Also, there were several changes in the curricula: Outcomes Based Education (OBE), National Curriculum Statement (NCS), and finally, Curriculum Assessment Policy Statement (CAPS), which rendered mastering the teaching difficult.

Targets of SLPs

The purpose of the SLPs is to address individuals' capacity gaps arising from the ever-changing environment. The question is: Who are the clients of SLPs? It is those who have money to pay for SLPs fees while denying people living in poverty, as they cannot afford the fees. Thus, the current SLPs model favours the elites and the haves and is not for the have-nots (Kirsch & Beernaert, 2011). This lopsided access to SLPs by the less educated communities is a "ticking-time-bomb" for escalating unemployment, vulnerability to poverty, and crime. Something must be done urgently. Who should start it where it is most needed? Can SLPs be felt in the deep rural areas where unemployment is as clear as daylight? Can SLPs be developed to benefit the millions of unemployed individuals? The author believes SLPs should be tailored for these less-educated communities more than it has been recently, providing opportunities for social mobility.

The author posits that SLPs can be the panacea for producing empowered individuals to respond to unequivocal employment demands. This deficiency in employability skills is not only a South African problem. While Africa has 20% of the world's population under 25, there is limited preparation to succeed in the 4IR. For instance, South Africa's unemployment is 30% to 40%, which is increasing (Statistics South Africa, 2020). There is a need to engage these unemployed people in SLPs to gain the skills and knowledge needed by employers.

COVID-19 Effects on Education

Globally, education institutions had to close at one time (Li & Lalani, 2020), and over 90% of children were out of school because of closures (Guidance Note, 2020). While studies may not have quantified the overall impact of missing school, school closure effects on learning outcomes cannot be discreet. Learners lost time in schooling because of shutdowns, exacerbated by inequities for learners already lagging in education access. Schools adopted online learning as a stop-gap measure in different countries during school closures (Schleicher, 2020). Unfortunately, many children from rural areas in Low-and-Middle-Income Countries (LMICs) do not benefit from online learning because of limited technology and internet access (Bhula & Floretta, 2020). To salvage the situation, change the *modus operandi* and policies (OECD Policy Responses, 2020a) to allow new notions, such as working from home or online learning (OECD Policy Responses, 2020b). Hence, many education systems worldwide have re-opened in a hybrid format: online/virtual and alternate class attendance (Hargittai & Micheli, 2019) as NN. However, many children face challenges in adopting virtual learning in South Africa and other countries in BRICS (Anwar et al., 2020). As the COVID-19 waves come and go, the confusion continues, with schools shutting down and re-opening irregularly to cater for educational needs that include the safety of learners, teachers, and families (Meinck et al., 2022). It implies that all stakeholders in education should play new roles in supporting students' learning in this state of mutability.

In the South African context, schools closed for a few months and continued learning rotationally, where learners would attend school on alternate days. This rotational learning challenged the teacher and the learner to cover the required content in reduced time. This quick-fix method in education can result in producing individuals with knowledge gaps. Also, because of socio-economic challenges arising from the pandemic, some children did not attend school because their parents either lost jobs or their salaries were reduced, thus becoming financially vulnerable. To attain the job as a quantity factor and find the quality of working conditions (Sen, 1989) will remain a challenge now and in the future. Therefore, programs must equip individuals with basic knowledge and skills for survival in the 4IR and beyond. SLPs can provide individuals with skills to deal with knowledge gaps just-in-time in ever-changing contexts.

The competence of schooling is determined by the consistency between the quality of education and job market needs. Before the COVID-19 pandemic in December 2019, global discrepancies were identified between the graduates produced and the labour market demands (Verma et al., 2018). For instance, The World Bank's (Guidance Note, 2020) metric of "learning poverty," which refers to children who cannot read and understand a simple text by age 10, was a staggering 80% in low-income countries. This challenge was also exhibited in the low secondary education completion rate of only 35% (Brown, 2020). There is low proficiency in reading Science, Technology, Engineering, and Mathematics (STEM), and a low proportion of university students per population in the school system. A study by van Zyl et al. (2012) acknowledged that

South Africa's school system did not prepare learners adequately for higher education. The study indicated that many learners who joined universities lacked basic skills, such as reading and writing. These identified gaps in reading and writing can be addressed through SLPs.

The Deplorable Situation of the World Education System

Through education, individuals are equipped with technical and non-technical skills necessary for productivity. Knowledge and skills are dynamic; thus, the labour market demands unique skills in different settings. It is no wonder that The Global Human Capital Report (2017) emphasized the significance of lifelong learning. If one lives, there will be new knowledge and skills to learn to keep abreast with change. Lifelong learning can occur through further education: formal, informal, long, or short duration since our focus is to reduce unemployment and increase efficacy for the employee through SLPs.

Crucial Issues at Hand

Capability Approach Theory (CAT) is a theoretical framework for conceptualising human capabilities and functionings (Sen, 1980). CAT emphasises the quality of life individuals can attain and achieve. This framework is underpinned by three key concepts: functionings, capabilities, and freedom and agency. Functionings are about what an individual can do. Capabilities include an individual's achievements, which reflect what one can achieve (functionings). The last one includes an individual's freedom to choose what to do or become (Sen, 1985). Functionings are achievements, while capabilities are the abilities to achieve. For instance, functionings constitute abilities to study and achieve knowledge and skills in higher education. Thus, the capability approach has been used to conceptualise the role of SLPs in improving people's "capability sets", particularly what they choose and achieve to meet the changing market demands. Thus, Sen's CAT provides a lens to understand the potential efficacy of SLPs in increasing individuals' capability to choose and achieve during COVID-19, the 4IR, and beyond.

The author argues that SLPs can equip individuals with the required competencies. The COVID-19 pandemic is like a wake-up call to be ready for any unexpected change. While we have always known that change is the most permanent phenomenon in the world, no one ever imagined the changes that have occurred because of COVID-19. It can be likened to the great depression in the USA, where the education reform system adopted a New Deal to enhance skills for everyone. Similarly, it can be compared to the 1967 reform in Ireland, where education policy changed to remove inequality (Raftery & Hout, 1993).

Conversely, high-level education attainment resulted in inequality and altered parent-child relationships (Lucas, 2001). In this discourse, the author contends that keeping abreast with ever-changing contexts requires the acquisition of new knowledge and new skills (LeBlue, 2020). Change causes re-

schooling, and the author believes SLPs can be the new deal to prepare people to face new challenges.

Re-schooling is about up-skilling and re-skilling. Thus, people need to embrace lifelong learning to be a re-schooled society, especially in technology education (Rahmatullah et al., 2022). No one is so qualified in any field that there is no need for capacity building. SLPs are the panacea for capacity development to address personal and professional development challenges. New knowledge and skills gained from targeted SLPs can address capacity gaps, unemployment, and job dissatisfaction. It is envisaged that the 4IR will affect employment at all levels. Thus, the different sectors need to upgrade skilled people and infrastructure that promotes job opportunities in the 4IR and beyond.

Discussion and Conclusion

This section deals with the main findings or the big picture regarding SLPs and discusses what SLPs are, why participate in SLPs, why offer SLPs, SLPs have not inclusive, targets of SLPs, and effects of COVID-19 on education. The main discourse the author advances is that SLPs are necessary for everyone to improve the *modus operandi* [the way of doing things] now and tomorrow beyond COVID-19. It is what one can achieve (Sen, 1985), and it is re-schooling and choosing what will meet the job market (Béland et al., 2020).

The author, on what SLPs are, used the South African Qualifications Authority (SAQA) definition of SLPs. They are short courses to enhance skills (Melai et al., 2020; South African Qualifications Authority, 2004), and they can be formal or informal. Currently, SLPs are offered in many institutions in South Africa (Table 1). Again, the author hypothesises that the more SLPs are offered, the more popular they will be. Hence, the need for this discourse regarding what SLPs in higher education now and beyond COVID-19. Considering individuals participating in SLPs, one wonders who needs SLPs. The author shows that everyone wants to (a) do better in his current job and (b) be guaranteed a job tomorrow. Hence, teachers, doctors, lawyers, artisans, nurses, et cetera, will be re-schooled to meet the changes in the workplace.

As shown in the section regarding why SLPs are offered, the researcher contends that institutions of higher learning and companies in South Africa offer SLPs to a diverse group of individuals (Table 1). These SLPs should narrow the gap between the working class due to changes in working environments. For example, institutions that offer ICT contribute to narrowing the digital divide. The need for institutions to offer SLPs is global, as shown during COVID-19, where virtual communication and learning were encouraged to keep abreast with duties in various countries (Coronavirus Research, 2020).

Before COVID-19 SLPs were not inclusive because they were considered a luxury, but during the pandemic, it became necessary to learn the NN to meet the demand of the workplace. Currently, SLPs offered at UNISA on what it terms a “just in time” and yet enough to keep individuals in employment. It was evidenced during lockdown; after that, workers learnt to communicate through Zoom¹, conferencing,

¹ Zoom® is a registered trademark of Zoom Video Communications, Inc.

Table 1
A Few Samples of SLPs Offered by Various Institution in South Africa

Group	Institution	Course Sample (Total courses offered)	Target	Duration
Institutions of Higher Learning	University of South Africa	Academic skills for different groups (20)	Professionals and students	Varies
	University of Witwatersrand	ICT in Education for Practitioners and Policy Implementers (5)	Professionals and students	Semester
	University of Cape Town	Data Handling for Primary Teachers—EDN2015CE (55)	Professionals and students	6 hours
	North West University	Designing Environmental Education Materials (40)	Professionals and students	Varies
	Cape Peninsula University of Technology	Writing Development Programme (5)	Professionals and students	≤ week
	Stellenbosch University	Data Handling (28)	Professionals and students	varies
	University of Johannesburg	ICT Solutions in Education (34)	Professionals and students	Varies
	University of Pretoria	Assessor Training (36)	Professionals and students	3 days
	Rhodes University	ISEA Integrated literacy workshop (5)	Professionals and students	Varies
	Walter Sisulu University	Information Technology Essentials (6)	Professionals and students	Varies
	University of Limpopo	Certificate in Inclusive Education (2)	Professionals and students	6 months/ block sessions
	University of Free State	Different courses (16)	Professionals and students	Varies
Nelson Mandela University	Educational courses (83)	Professionals and students	Varies	
Companies/ others	Commerce and Computer College of South Africa (Pty)Ltd	ICT certification (Not specified)	Professionals and students	Varies
	Afri-Training Institute	Various certification (Not specified)	Professionals and student	Varies
	Damelin Online Short Courses	Various courses (Not specified)	Professionals and students	Varies

and submit reports from colleagues (Hargittai & Micheli, 2019; Hunsaker et al., 2019). What COVID-19 did was accelerate the need to use available for day-to-day duties. Thus, the need to learn technology links with the CA about what to learn (Sen, 1985) and why to learn it. This link is a knowledge gap that can be addressed using the Critical Realist Theory (CRT) (Archer, 1995) to explain why SLPs are offered and why all individuals, irrespective of their levels of education, should engage in SLPs. CRT focuses on the structure and its organisation. For SLPs to succeed, we need to link the structure and agency. CRT links what to why by providing the cause (Figure 1). It also addresses the seven ontological developments of critical realism broadly divided into three categories: basic, dialectical, and philosophy of metaReality (Bhaskar, 2020). Basic critical realism is level one, dialectical extends to level four, and the last three are dealt with as the philosophy of metaReality (Archer, 1995). These developmental ontologies are enacted in structure and agency (Booker, 2021), and they can safeguard against unemployment beyond COVID-19 and in eminent IRs. Hence a motivation for individuals' engagement in SLPs.

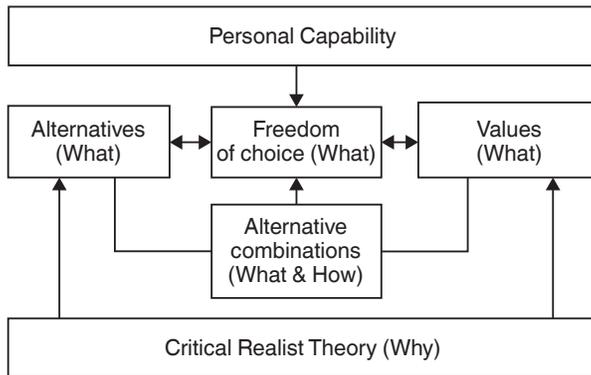
As stated in the section regarding the crucial issues at hand, engagement in SLPs enhances new knowledge and skills. In this way, a re-schooled society is created. Also, the re-schooled society will solicit sponsors of SLPs to enable the less fortunate to improve their skills. Thus, in this discourse, Capability Approach Theory (CAT) (Sen, 1985) was used as a lens to conceptualise what SLPs improve people's capabilities. In contrast, CRT provided the reasons for the enactment to avert unemployment beyond COVID-19. The author's discourse explored the current changes brought about by COVID-19 and the working conditions during and beyond COVID-19. The outcome of the discourses is that institutions offer SLPs considering Sen's Capability Approach Theory (CAT) (Sen, 1985) to explain the "what" concept, while the Critical Realist Theory (CRT) explains why individuals engage in SLPs. For example, the author used CAT as a lens to understand SLPs issues regarding workplace changes arising from globalisation, the 4IR and the COVID-19 pandemic. Besides CAT, the author used CRT to understand why institutions offer SLPs and why individuals choose to take available alternatives of upskilling through SLPs. After upskilling, one can do new jobs in a different context (Agha, 2022). While previous education emphasised technical expertise, there is an inevitable shift in employability skills to more social and soft skills (Kahn, 2017) and the use of ICT and internet of things (IoT) despite the fears raised by youths (Abramova et al., 2022). The 4IR, for instance, demands communication, teamwork; ethics and professionalism; lifelong learning; problem-solving, management, technology, decision making, critical thinking, and leadership (Clarke, 2016; Jameson et al., 2016). Many of these skills are hard to automate because they are associated with human interactions in different contexts.

Acquiring such skills from SLPs would make individuals more versatile, thus increasing their survival options. It calls for a deliberate effort to re-school individuals to empower them to meet the new market demands. The various capacity gaps must be identified, and customised SLPs should equip people with such skills, thus narrowing the capabilities gaps in different contexts. SLPs provisioning will have both short-term and long-term benefits. It will create jobs, as individuals use their newly

gained skills to improve their functionings. It is no wonder University of South Africa (UNISA) and others have well-established SLP programmes for various individuals' needs. In addition, the University of Johannesburg (UJ) has already established short online courses: *Artificial Intelligence in the Fourth Industrial Revolution (4IR)* and *African Insights, SLPs—Massive Open Online Courses (MOOCs)*, which are limited in the country. To offer such programmes is a big endeavour and would require all stakeholders to work together as a team. As the African axiom goes, “it takes a village to raise a child” and “one ant cannot build an anthill” (Semali & Stambach, 1997, p. 15), suggesting that by working as a team, people achieve more. The participants need to be consulted on their passion to identify market needs and aspirations. To date, universities and companies offer SLP to students or employers to improve production quality. Anyone, such as teachers and doctors, can engage in SLPs. Figure 1 below illustrates a model for conceptualising SLPs for a re-schooled society. The model highlights the issues that influence individuals' decisions to consider capacity development through SLPs, and why institutions and students engage in SLPs.

Figure 1

A Model to Understand What and Why Institutions as Well as Students Engage in SLPs



Although SLPs have been around for decades and have been used as remedial programs, there is a paucity of literature on their impact on improving human capital. Higher education institutions should work closely with different employers to establish the apparent capacity gaps in the short term. It will generate those skills needed in the community and must be communicated to society. Also, there should be an evaluation of the quality and quantity of the SLPs. In this evaluation, the focus should be on how SLPs meet the communities needs. When considering the deficiencies, we need to consider the need for society capacity enhancement from a wide range of fields. There is a need to create inclusive SLP opportunities to include the low-skilled and less educated individuals to avoid further vulnerabilities. Thus, in this paper, there are two contributions: (a) this discourse motivates everyone to get re-schooled through SLPs to meet the ever-changing employment market; (b) there is a theoretical contribution regarding the use and the explanations of Critical Realist Theory (CRT)

besides Capability Approach Theory (CAT) to generate a novel understanding of what and why SLPs are offered to all individuals (students) (Figure 1). The author borrows the words of Siry et al. (2012), who contend that society will attain a blend of doing and causative discourses. It suggests that society can access all forms of SLPs to advance skills development for their good.

In the long term, the key to unlocking Africa's prospects is to produce a skilled workforce. Therefore, there is a need for systemic changes in the education system, from the Early Childhood Development (ECD) level onwards, to give prominence to ICT and innovation and infuse social and soft skills in education curricular and co-curricular activities programming. Lobby for SLPs funding to also cater for the less fortunate in society. Establish quality assurance for SLPs in all sectors by appointing monitoring and evaluation officers to ensure quality. Also, blending humanity and technology for everyone on the globe to obtain security and boldness to face the future (Volini et al., 2021). It is envisaged that many SLPs graduates will gain knowledge and skills for their present and future work, especially as the world economy changes from a commodity economy to a knowledge economy. Similarly, the knowledge holders should get loans from the bank to establish SLPs.

Considering the COVID-19 pandemic, globalisation, and 4IR, chances for employment have shifted dramatically to favour technology-literate individuals. This paper highlights the need for a re-schooled society through SLPs to improve individuals' employability. Individuals without such skills will soon become irrelevant and thus be destined for a life of economic vulnerability. This paper highlights SLPs in providing re-schooling opportunities for all to meet the 4IR demands.

Since people have different capability sets (Nussbaum & Sen, 1993), SLPs should cater for their different needs. If they do not choose from the available resources, it will be "the tragedy of goodwill" (Floridi, 2006, p. 255). Re-schooling is a goodwill one can take from SLPs offered at various institutions. Thus, goodwill probably displays a readiness to participate in what is of interest in this discourse, which is getting everyone involved in SLPs to avert unemployment now and in the future.

Re-schooling is a goodwill one can take from SLPs offered at various institutions. Failure to take that opportunity is a tragedy where there is a lack of power to act on the available information. It implies that individuals are pressured to act on issues, and yet they have neither skills nor the resources to deal with the issues at hand. In that case, outsiders, like companies and NGOs, should promote and sponsor SLPs as a step in the right direction.

Final Thoughts

Suppose there are opportunities to improve the functionings of less fortunate people with low socioeconomic status through re-schooling; there will be a community that will not function and limit national growth. The COVID-19 pandemic, globalization, and 4IR demands are likely to exacerbate the suffering of the less fortunate. This paper described SLPs as a building block for individuals' capacities to respond to labour market demands. The author used CAT and CRT to advocate for formal SLPs. Many

informal SLPs are not documented and need further studies. The author contends SLPs can be a panacea for unemployment in the ever-changing world. Considering the formal schooling attained by individuals and the informal setups at the workplace, everyone needs SLPs to catch up with the recent developments in life. Hence, SLPs can be a panacea for everyone.

References

- Abramova, S. B., Antonova, N. L., Campa, R., & Popova, N. G. (2022). Digital fears experienced by young people in the age of technoscience. *Changing Societies & Personalities*, 6(1), 56–78. <https://doi.org/10.15826/csp.2022.6.1.163>
- Agha, K. (2022). Training and upgrading skills of employees towards building resilience among the workforce. In Y. Ramakrishna (Ed.), *Handbook of research on supply chain resiliency, efficiency, and visibility in the post-pandemic era* (pp. 226–240). IGI Global. <https://doi.org/10.4018/978-1-7998-9506-0.ch012>
- Anwar, M., Khan, A., & Sultan, K. (2020). The barriers and challenges faced by students in online education during the COVID-19 pandemic in Pakistan. *Gomal University Journal of Research*, 36(1), 52–62.
- Archer, M. S. (1995). *Realist social theory: The morphogenetic approach*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511557675>
- Bartik, A. W., Cullen Z. B., Glaeser, E. L., Luca, M., & Stanton, C. T. (2020). *What jobs are being done at home during the COVID-19 crisis? Evidence from firm-level surveys* (Working paper No. 27422). National Bureau of Economic Research. <https://doi.org/10.3386/w27422>
- Béland, L.-P., Brodeur, A., & Wright, T. (2020). *The short-term economic consequences of Covid-19: Exposure to disease, remote work and government response* (Discussion paper No. 13159). IZA Institute of Labor Economics.
- Belsky, L., & Mills, K. (2020, April 24). Helping governments respond to the unemployment crisis caused by the coronavirus. *Coursera Blog*. <https://blog.coursera.org/helping-governments-respond-to-the-unemployment-crisis-caused-by-covid-19/>
- Beraza, C. (2018). The changing nature of the graduate employment market: The fourth industrial revolution. In J. J. Turner & G. Mulholland (Eds.), *International enterprise education: Perspectives on theory and practice* (pp. 213–233). Routledge. <https://doi.org/10.4324/9781315518213>
- Bhaskar, R. (2020). Critical realism and the ontology of persons. *Journal of Critical Realism*, 19(2), 113–120. <https://doi.org/10.1080/14767430.2020.1734736>
- Bhula, R., & Floretta, J. (2020, October 16). A better education for all during—and after—the COVID-19 pandemic. *Stanford Social Innovation Review*. <https://doi.org/10.48558/7QSP-FA19>

Booker, R. (2021). A psychological perspective of agency and structure within critical realist theory: A specific application to the construct of self-efficacy. *Journal of Critical Realism*, 20(3), 239–256. <https://doi.org/10.1080/14767430.2021.1958281>

Brookfield, S.D. (1986). *Understanding and facilitating adult learning: A comprehensive analysis of principles and effective practice*. Jossey-Bass.

Brown, G. T.L. (2020). Schooling beyond COVID-19: An unevenly distributed future. *Frontiers in Education*, 5, Article 82. <https://doi.org/10.3389/feduc.2020.00082>

Brown, G. T.L., O’Leary, T.M., & Hattie, J.A.C. (2018). Effective reporting for formative assessment: the aSTTle case example. In D. Zapata-Rivera (Ed.), *Score reporting research and applications* (pp. 107–125). Routledge. <https://doi.org/10.4324/9781351136501-11>

Clarke, M. (2016). Addressing the soft skills crisis. *Strategic HR Review*, 15(3), 137–139. <https://doi.org/10.1108/SHR-03-2016-0026>

Coombs, P.H., & Ahmed, M. (1974). *Attacking rural poverty: How non-formal education can help* (Report No. 10091). The Johns Hopkins University Press.

Coronavirus research April 2020: Multimarket research wave 3. (2020). Global Web Index (GWI).

Coutts, C. E.N., Buheji, M., Ahmed, D., Abdulkareem, T., Buheji, B., Eidan, S., & Perepelkin, N. (2020). Emergency remote education in Bahrain, Iraq, and Russia during the COVID-19 pandemic: A comparative case study. *Human Systems Management*, 39(4), 473–493. <https://doi.org/10.3233/HSM-201097>

Fang, Z., Lachman, J.M., Zhang, C., Qiao, D., & Barlow, J. (2022). A virtuous circle: Stakeholder perspectives of a short-term intensive parent training programme delivered within the context of routine services for autism in China. *Autism*, 26(8), 1973–1986. <https://doi.org/10.1177/13623613211070869>

Fass, P. (1982). Without design: Education policy in the New Deal. *American Journal of Education*, 91(1), 36–64. <https://doi.org/10.1086/443664>

Floridi, L. (2006). Information technologies and the tragedy of the Good Will. *Ethics and Information Technology*, 8, 253–262. <https://doi.org/10.1007/s10676-006-9110-6>

Gaskel, A. (2020, July 28). How skills will be crucial as we adapt to the post-Covid world. *Forbes*. <https://www.forbes.com/sites/adigaskell/2020/07/28/how-skills-will-be-crucial-as-we-adapt-to-the-post-covid-world/?sh=5d96e2ea2e26>

Georgiadou, E., Berki, E., Valtanen, J., Siakas, K., Rahanu, H., Edwards, J.A., Paltalidis, N., Agouropoulos, A., Hatzipanagos, S., McGuinness, C., Cavanagh, J., Kirby, P., Ojukwu, D., Savva, A., Stylianou, V., Plastira, M., Gevorgyan, R., Ross, M., Staples, G., ... & Panov, Iu. (2020). Challenges of rapid migration to fully virtual education in the age of the Coronavirus pandemic: Experiences from across the world. In J. Uhomoihi, E. Dewar, E. Georgiadou, P. Linecar, P. Marchbank, M. Ross

& G. Staples (Eds.), *Proceedings of XXVth International conference on e-Learning as a solution during unprecedented times in the 21st century INSPIRE 2020* (pp. 253–334). Solent University.

Guidance note on remote learning and COVID-19. (2020). The World Bank Education Global Practice. <http://documents.worldbank.org/curated/en/531681585957264427/Guidance-Note-on-Remote-Learning-and-COVID-19>

Guzal, M. (2021). Teacher training in Uzbekistan in the 20^s of the XX century: Problems and solutions. *Pindus Journal of Culture, Literature, and ELT*, 1(12), 6–8. <https://www.literature.academicjournal.io/index.php/literature/article/view/156>

Hanbury, A., Prosser, M., & Rickinson, M. (2008). The differential impact of UK accredited teaching development programmes on academics' approaches to teaching. *Studies in Higher Education*, 33(4), 469–483. <https://doi.org/10.1080/03075070802211844>

Hargittai, E., & Micheli, M. (2019). Internet skills and why they matter. In M. Graham & W.H. Dutton (Eds.), *Society and the Internet: How networks of information and communication are changing our lives* (pp. 109–126). Oxford University Press. <https://doi.org/10.1093/oso/9780198843498.003.0007>

Hinchcliffe, G., & Terzi, L. (2009). Introduction to the special issue “capabilities and education”. *Studies in Philosophy & Education*, 28, 387–390. <https://doi.org/10.1007/s11217-009-9133-7>

Hunsaker, A., Nguyen, M. H., Fuchs, J., Djukaric, T., Hugentobler, L., & Hargittai, E. (2019). “He explained it to me and I also did it myself”: How older adults get support with their technology uses. *Socius*, 5. <https://doi.org/10.1177/2378023119887866>

International Labour Organisation (ILO), & Organisation for Economic Co-operation and Development (OECD). (2020). *The impact of the COVID-19 pandemic on jobs and incomes in G20 economies* (An ILO–OECD paper prepared at the request of G20 Leaders Saudi Arabia's G20 Presidency 2020 monitors the pandemic's impact on employment). https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/multilateral-system/g20/reports/WCMS_756331/lang--en/index.htm

Jameson, A., Carthy, A., McGuinness, C., & McSweeney, F. (2016). Emotional intelligence and graduates–employer's perspectives. *Procedia—Social and Behavioral Sciences*, 228, 515–522. <https://doi.org/10.1016/j.sbspro.2016.07.079>

Jansen, J.D., & Taylor, N. (2003). *Educational change in South Africa 1994–2003: Case studies in large-scale education reform* (Working paper No. 28250). World Bank.

Kafle, D. (2019). Never stop learning [Editorial]. *Orthodontic Journal of Nepal*, 9(1), 5. <https://doi.org/10.3126/ojn.v9i1.25681>

Kahn, L.B. (2017, June 21). Demand for social and cognitive skills is linked to higher firm productivity. *Yale Insights*. <https://insights.som.yale.edu/insights/demand-for-social-and-cognitive-skills-is-linked-to-higher-firm-productivity>

Kanwar, A., & Carr, A. (2020). The impact of COVID-19 on international higher education: New models for the new normal. *Journal of Learning for Development*, 7(3), 326–333.

Kibirige, I., & Bodirwa, K.B. (2021). The effect of using computer simulations on grade 11 learners' performance in plants biodiversity in South Africa. *Journal of Baltic Science Education*, 20(4), 612–621. <https://doi.org/10.33225/jbse/21.20.612>

Kirsch, M., & Beernaert, Y. (2011). *Short cycle higher education in Europe. Level 5: The missing link* (Report). EURASHE. <https://www.eurashe.eu/resource-library/>

Kumar, N., Parsa, A.D., & Rahman, E. (2022). A systematic review on the current trend in nonsurgical aesthetic training for knowledge, skill, and professional identity formation. *Aesthetic Surgery Journal*, 42(9), 1056–1063. <https://doi.org/10.1093/asj/sjac020>

La Belle, T.J. (1982). Formal, non-formal and informal education: A holistic perspective on lifelong learning. *International Review of Education*, 28(2), 159–175. <https://doi.org/10.1007/BF00598444>

LeBlue, L. (2020, March 30). New skills for a new world. *Forbes*. <https://www.forbes.com/sites/servicenow/2020/05/30/new-skills-for-a-new-world/?sh=47054b1f3405>

Li, C., & Lalani, F. (2020, April 29). *The COVID-19 pandemic has changed education forever. This is how*. World Economic Forum. <https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/>

Lucas, S.R. (2001) Effectively maintained inequality: Education transitions, track mobility, and social background effects. *American Journal of Sociology*, 106(6), 1642–1690. <https://doi.org/10.1086/321300>

Meinck, S., Fraillon, J., & Strietholt, R. (Eds.). (2022). *The impact of the COVID-19 pandemic on education. International evidence from the Responses to Educational Disruption Survey (REDS)* (Rev. ed.). UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000380398>

Melai, T., van der Westen, S., Winkels, J., Antonaci, A., Henderikx, P., & Ubachs, G. (2020). *Concept and role of Short Learning Programmes in European higher education* (Research report No. 02.1). European Short Learning Programmes.

Melesse, S., & Gulie, K. (2019). The implementation of teachers' continuous professional development and its impact on educational quality: primary schools in Fagita Lekoma Woreda, Awi Zone, Amhara Region, Ethiopia in Focus. *Research in Pedagogy*, 9(1), 81–94. <https://doi.org/10.17810/2015.93>

Ng, I.C., & Tseng, L.-M. (2008). Learning to be sociable: The evolution of homo economicus. *The American Journal of Economics and Sociology*, 67(2), 265–286. <https://doi.org/10.1111/j.1536-7150.2008.00570.x>

Nie, D., Panfilova, E., Samusenkov, V., & Mikhaylov, A. (2020). E-learning financing models in Russia for sustainable development. *Sustainability*, 12(11), Article 4412. <https://doi.org/10.3390/su12114412>

Nussbaum, M. C. (2000). *Women and human development: The capabilities approach*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511841286>

Nussbaum, M. C., & Sen, A. (Eds.). (1993). *The quality of life*. Clarendon Press.

OECD. (2018). *Getting skills right: Spain*. OECD Publishing. <https://doi.org/10.1787/9789264282346-en>

OECD Policy Responses to Coronavirus (COVID-19). (2020a). *Coronavirus (COVID-19): SME policy responses*. OECD Publishing. <https://doi.org/10.1787/04440101-en>

OECD Policy Responses to Coronavirus (COVID-19). (2020b). *Skill measures to mobilise the workforce during the COVID-19 crisis*. OECD Publishing. <https://doi.org/10.1787/afd33a65-en>

OECD Policy Responses to Coronavirus (COVID-19). (2020c). *The potential of online learning for adults: Early lessons from the COVID-19 crisis*. OECD Publishing. <https://doi.org/10.1787/ee040002-en>

Raftery, A. E., Hout, M. (1993). Maximally maintained inequality: Expansion, reform, and opportunity in Irish education, 1921–1975. *Sociology of Education*, 66(1), 41–62. <https://doi.org/10.2307/2112784>

Rahmatullah, A. S., Mulyasa, E., Syahrani, S., Pongpalilu, F., & Putri, R. E. (2022). Digital era 4.0: The contribution to education and student psychology. *Linguistics and Culture Review*, 6(S3), 89–107. <https://doi.org/10.21744/lingcure.v6nS3.2064>

Revinova, S., & Lazanyuk, I. (2021). E-learning trends and benefits: Russian realities. In *Proceedings of the 15th International Technology, Education and Development Online Conference INTED2021, 8–9 March, 2021* (pp. 1295–1304). <https://doi.org/10.21125/inted.2021.0302>

Robeyns, I. (2006). The capability approach in practice. *The Journal of Political Philosophy*, 14(3), 351–376. <https://doi.org/10.1111/j.1467-9760.2006.00263.x>

Sampaio, A. Z. (2022). The university of Lisbon's short professional course in BIM: Practice, construction, structures and historic buildings. *Architecture*, 2(2), 406–423. <https://doi.org/10.3390/architecture2020022>

Semali, L., & Stambach, A. (1997). Cultural identity in an African context: Indigenous education and curriculum in East Africa. *Folklore Forum*, 28(1), 3–27.

Schleicher, A. (2020). *The impact of COVID-19 on education: Insights from education at a glance 2020*. OECD Publishing.

Schwab, K. (2016). *The fourth industrial revolution*. World Economic Forum.

Sen, A. (1980). Equality of what? In S.M. McMurrin (Ed.), *The Tanner lecture on human values* (Vol. 1) (pp. 197–220). Cambridge University Press.

Sen, A. (1985). Well-being, agency and freedom: The Dewey lectures 1984. *Journal of Philosophy*, 82(4), 169–221. <https://doi.org/10.2307/2026184>

Sen, A. (1989). Development as capability expansion. In K. Griffin & J. Knight (Eds.), *Human development in the 1980s and beyond* (pp. 41–58) [Special issue]. *Journal of Development Planning*, 19.

Sen, A. (1992). *Inequality reexamined*. Harvard University Press.

Sen, A. (1997). From income inequality to economic inequality. *Southern Economic Journal*, 64(2), 384–401. <https://doi.org/10.1002/j.2325-8012.1997.tb00063.x>

Siry, C., Ziegler, G., & Max, C. (2012). “Doing science” through discourse-in-interaction: Young children’s science investigations at the early childhood level. *Science Education*, 96(2), 311–326. <https://doi.org/10.1002/sce.20481>

Sokoloff, D.R. (2021). Active dissemination—Over three decades of faculty development in active learning. In B. Jarosievitz & C. Sükösd (Eds.), *Teaching-learning contemporary physics. Challenges in physics education* (pp. 201–211). Springer. https://doi.org/10.1007/978-3-030-78720-2_14

South African Qualifications Authority. (2004). Criteria and guidelines for short courses and skills programmes. <https://www.saqa.org.za/docs/guide/2004/s-courses.pdf>

Statistics South Africa. (2019). *Quarterly labour force survey 2018: Q4* [Dataset]. Version 1.0.

Statistics South Africa. (2020). *Quarterly labour force survey 2020: Q1* [Dataset]. Version 1. <https://doi.org/10.25828/vkhhb-2j69>

Terzi, L. (2005). Beyond the dilemma of difference: The capability approach to disability and special educational needs. *Journal of Philosophy of Education*, 39(3), 443–459. <https://doi.org/10.1111/j.1467-9752.2005.00447.x>

Terzi, L. (2014). Reframing inclusive education: Educational equality as capability equality. *Cambridge Journal of Education*, 44(4), 479–493. <https://doi.org/10.1080/0305764X.2014.960911>

The Global Human Capital Report 2017: Preparing people for the future of work. (2017). World Economic Forum. <https://www.weforum.org/reports/the-global-human-capital-report-2017/>

Theodossopoulos, D. & Calderon, E. (2021). Enhancing fieldwork learning experiences for the architectural conservation curriculum. *Journal of Cultural Heritage Management and Sustainable Development*, 37(1), 1–16. Advance online publication. <https://doi.org/10.1108/JCHMSD-05-2020-0078>

Thwala, R. (2021). *Continuing professional teacher development overview* [PowerPoint Slides]. SACE.

Tomczyk, Ł., Martins, V.F., Eliseo, M.A., Silveira, I.F., Amato, C.H. & Stošić, L. (2020). ICT and education in Brazil—NGO, local government administration, business and higher education expert perspective. *World Journal on Educational Technology: Current Issues*, 12(4), 201–224. <https://doi.org/10.18844/wjet.v12i4.5198>

van Zyl, A., Gravett, S. & De Bruin, G.P., (2012). To what extent do pre-entry attributes predict first year student academic performance in the South African context? *South African Journal of Higher Education*, 26(5), 1095–1111. <https://doi.org/10.20853/26-5-210>

Verma, P., Nankervis, A., Priyono, S., Mohd Salleh, N., Connell, J., & Burgess, J. (2018). Graduate work-readiness challenges in the Asia-Pacific region and the role of HRM. *Equality, Diversity and Inclusion*, 37(2), 121–137. <https://doi.org/10.1108/EDI-01-2017-0015>

Volini, E., Hatfield, S., & Scoble-Williams, N. (2021). *From survive to thrive: The future of work in a post-pandemic world*. Deloitte.

Walters, S. & Daniels, F. (2009). Where can I find conference on short courses? In L. Cooper & S. Walters (Eds.), *Learning/Work: Turning work and lifelong learning inside out* (pp. 61–72). HCSR Press.

Weale, A. (1992). *The new politics of pollution*. Manchester University Press.

Williamson, S., & Heinz, A. (2021). Improving inclusion: Short courses as an opportunity for transnational education. In V. Tsiligiris, W. Lawton & C. Hill (Eds.), *Importing transnational education* (pp. 251–265). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-43647-6_15

Woessmann, L. (2016). The economic case for education. *Education Economics*, 24(1), 3–32. <https://doi.org/10.1080/09645292.2015.1059801>