

What Problem Should Skills Solve? Interrogating Theories of Change Underpinning Strategies and interventions in Vocational Education and Skills in LMICs

Stephanie Allais and Carmel Marock

Abstract

The aim of this paper is to understand the ‘theory of change’ underlying interventions to support vocationalisation of general education as well as vocational education and training (VET) and skills development. The focus is on interventions supported by development agencies and donors, although national policies are also considered, as the agencies work with governments and are both guided by, and influence, their priorities. The first aim is to interrogate what problem VET is seen as the answer to, and how VET is seen to solve that problem (their theory of change). The second aim is to understand the extent to which, and ways in which, vocationalising education is supported and VET favoured, as compared to other components of the education system such as early childhood development, early primary education, or university expansion, as an educational intervention.

We found that while some organisations have explicit theories of change—generally multiple theories of change addressing different aspects of the overarching system—many are currently in the process of developing these theories of change. A few state that they do not have a theory of change but rather focus on the development of targets for different components of the system.

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1. Introduction	2
2. Overview of the Research Literature	4
Research into the role of donors and development agencies.....	8
3. Methodology	12
4. Findings	12
4.1. Problem, and assumptions about underpinning problems	13
4.2. Interventions and how we measure what these achieve.....	25
5. Analysis.....	37
Reflecting on the findings	39
References.....	41

1. INTRODUCTION

The aim of this paper is to understand the ‘theory of change’ underlying interventions to support vocationalization of general education as well as vocational education and training (VET) and skills development. We use the term VET to encompass the full range of vocational education and training provided through schools and colleges as well as workplaces and other skills development interventions. Where organizations use the term ‘technical and vocational education and training’, or TVET, we use this term instead. The focus is on interventions supported by development agencies and donors, although national policies are also considered, as the agencies work with governments and are both guided by, and influence, their priorities. The first aim is to interrogate what problem VET is seen as the answer to, and how VET is seen to solve that problem (their theory of change). The second aim is to understand the extent to which, and ways in which, vocationalizing education is supported and VET favoured, as compared to other components of the education system such as early childhood development, early primary education, or university expansion, as an educational intervention.

The paper is structured in the following way. We provide a brief overview of the research literature on skills and development. This starts with a necessarily simplified distillation of two main theoretical approaches that contain implicit theories of change, because they analyze the relationship between skills and economies. It then considers some key research into the role of donors and development agencies in education, skills, and TVET.

We then present our findings, which are based on a review of TVET, skills and education strategies of influential organizations as well as a small, targeted set of key informant interviews. Four categories of organization are considered: development banks, country donor and development organizations, multilateral organizations, and philanthropic organizations and foundations.

We found that while some organizations have explicit theories of change—generally multiple theories of change addressing different aspects of the overarching system—many are currently in the process of developing these theories of change. A few state that they do not have a theory of change but rather focus on the development of targets for different components of the system.

The main problem which organizations seek to address through VET is consistently identified in the strategy documents and our interviews is that of youth un- and underemployment, although a few organizations have a larger number of social and economic goals. There are then a set of assumptions made about the main problem, a key one being that skills deficits are a substantial cause of youth un- and underemployment. Flowing from this is the assumption that VET is an important area to intervene in order to solve the specific problem of the perceived skills mismatch (between supply and demand of skills), but also the recognition that VET is currently not able to solve this problem because it is dysfunctional in a range of ways. This leads to a range of interventions focused on fixing VET.

These findings suggest that there are four main Theories of Change present in the VET space:

1. Supporting individuals to access education will improve their skills and therefore earnings.
2. Supporting individuals to access education while at the same time working with education institutions to improve offerings will improve individuals' skills and therefore earnings and the longer-term ability of these institutions to offer quality programmes.
3. Supporting individuals to access education while at the same time working with education institutions and the broader systems that shape and govern them, to improve offerings, will improve individuals' skills and therefore earnings, as well as the longer-term ability of these institutions to offer quality and relevant programmes.
4. Structural economic change is required to improve the number and quality of jobs available, and interventions to both stimulate demand and that support institutions that provide education and training to provide the expertise, are integral to strategies to achieve the requisite change.

There are, however, a number of tensions that emerge when reviewing the assumptions within these different theories of changes more closely, relating to which problems VET can assist with and the ways in which VET will assist to solve for the main problem.

One key tension implicit in these assumptions is between solving 'skills mismatches' and facilitating and supporting educational expansion for mass employment. Another contradiction is that while VET is seen as an immediate solution, it is also VET that is regarded as the 'weak link' in the education and training system, requiring extensive support to 'fix' TVET. Related to this, while we found extensive commentary on the need to 'fix' VET to address the problem, there is very limited comment on the assumptions that are being made about the ways in which the labour market needs to change to allow for the quality of the jobs that VET graduates access to be improved. Nor is the analysis of how to 'fix' VET integrated into a set of assumptions about how the economy itself must be transformed to allow formal employment to be accelerated and SMMEs to succeed. Instead, the focus of VET interventions, for many of the organisations, lies almost entirely on actions to enhance the quality of the education and training system, with limited focus on ways to address the structural challenges contributing to unemployment, although these aspects may be addressed in other parallel interventions that are being implemented by these institutions.

What also emerged from the research are factors that muddle the relationship between problem and intervention. First, our findings highlight the complexity of implementing integrated interventions. We found that many of the policy-facing organizations are aspirational about what should and could be done and offer guidance in their documents as to how to integrate interventions. But organizations that are more involved in supporting implementation and doing the work in countries say that from their experience, this level of integration is extremely hard to achieve. Another is the structure of institutions that are active in the development space, as well as the governments being assisted—separate divisions, units, and ministries dealing with economic development interventions and vocational and skills development interventions leads to fragmentation, which assist to explain why VET interventions are frequently implemented in parallel to interventions that seek to support shifts in the economy. Finally, there is an emphasis on delivering interventions that can be measured. This may explain why there is a tendency to measure whether policies, frameworks, and guidelines are adopted, whether structures established, or whether labour market information systems are adopted, rather than on understanding the extent to which interventions related to TVET contribute to tackling the identified problem as it is both difficult to measure the extent that the interventions have had an impact on the

problem or even the extent of the contribution that these interventions had made to changes realized. This can result in a prioritization of interventions that can be measured rather than ones that reflect the complexity of the skills formation system.

2. OVERVIEW OF THE RESEARCH LITERATURE

An analysis of the research literature shows two key approaches to the role of skills in economic development.

The first approach, Human Capital Theory, starts from individuals. This theory argues that providing individuals with knowledge and skills makes them more productive, helping them to secure or improve their employment status or income generation capacity, and in turn making firms and organizations more productive, leading to increasing national prosperity and well-being. Related to this is the idea of skill-biased technological growth, which contains the view that employers will upgrade the quality of jobs as more educated workers enter workforces. **The second approach** is relational: it looks at skill formation as a factor in complex economic and social systems which shape and are shaped by the nature of skills and skills formation system in a given society or economy. Instead of a neat causal system, in which we can separate out where x causes y, this approach suggests a complex system in which changing any one part will have an effect on all the others. Variations in skill formation systems are embedded in political economy structures, institutions, and relationships. Education and training systems are understood as complex sets of institutions with their own internal logics embedded within these social and economic arrangements. Each part affects each other and the whole, in ways that are heavily shaped by history and not always easy to change.

The two approaches influence interventions in VET differently. To explore this, we start with a very brief and necessarily simplified overview of the two sets of ideas, with a view to exploring the ways in which they could explain the theories of change implicit in VET interventions.

Human capital theory

Human capital theory lies unstated and unacknowledged behind much policy work. The key idea underpinning human capital theory is that education enhances individuals' productivity. Employers, it is assumed, are willing to pay higher wages to better educated workers because of they will be more productive than uneducated workers. Some of the early influential work that brought the idea to prominence is by Jacob Mincer (1958) and Theodore Schultz (1961); it is most widely associated with Gary Becker whose work developed the idea considerably (Becker 1993; 1976; 1962). The theory is concerned both with the contribution of human capital to economic growth and the formation and distribution of individual earnings.

In theory, human capital is not restricted to formal schooling or 'on-the-job training'; for example, Becker includes health and location as key components of an individual's human capital. But in practice, particularly in relation to rates of return studies, it has mainly focused on formal education, professional experience, training within the firm and migration, and in most policy interventions, the assumption is that students acquire productivity-enhancing knowledge and skills through education.

Empirically, a large body of work studies rates of return to education (Psacharopoulos 1994; 1991; Psacharopoulos and Patrinos 2004). Recent work in this sphere tries to use measure of cognitive achievement that are more fine-grained or accurate than simply years in schooling (Hanushek and Kimko 2000; Hanushek and Woessmann 2008).

While empirical researchers debate about how to measure human capital and the returns on it, there is also debate about what it is that credentials signify (Bills 2004). Some researchers argue that employers are uncertain about the marginal productivity of potential employees, and unable to clearly ascertain what knowledge and skills they bring, let alone how these enhance or otherwise affect productivity. What they do, therefore, is look for crude signals that differentiate applicants from *each other* (Spence 1973). In other words—while there is agreement that education signals productivity, there may be different causal mechanisms at work. For human capital theory, education leads to knowledge and skills that make workers more productive, for screening and signalling theories, education sifts the potential labour market. Qualifications could represent potential, staying power, or any number of other characteristics. Collini (2012) argues, for example, that employers sought arts and humanities graduates for top jobs in the UK not because they necessarily gain ‘useful’ skills through these courses, but because these courses have historically attracted many of the brightest students.

Other factors explain one’s relative position in the job queue (prejudice being one). A key one in current labour markets around the world is work experience, thus relegating young people to low positions in queues, even when they do have relatively good educational levels, and creating the impression that the youth unemployment crisis stems from individual attributes of young people, instead of being an unemployment crisis in which young people are in many instances at the back of the queue for jobs. Thus, while education levels is perceived as important by employers because of the importance placed on training costs, and more educated people are believed to be cheaper and easier to train, weighing against this decision-making process is the view that workers with experience are a known quantity, against a potentially risky decision.

From employers’ perspective, what exactly qualifications signal (and what theories explain why educated people are more productive, or not) may be immaterial—if they are getting the most productive workers. From a policy point of view, the difference may be very material.

This is because there are reinforcing cycles of prestige and status within education systems, whereby less able students are streamed into vocational options. If employers prefer to hire potential workers with senior secondary, or grade 10 rather than graduates from vocation programmes, as a recent firm survey in South Africa and Ethiopia suggests (Allais et al. 2020), and if professional and higher-level jobs are filled with graduates, the labour market prospects for VET graduates are low.

There is a range of critiques of human capital theory, some of which argue the productivity of workers is based on a range of complex factors, and that in many cases more educated workers are not more productive (Brown, Lauder, and Cheung 2020). Further, human capital theory assumes that people with more education will earn more, and get better employment prospects than people with less education. This, though, is increasingly not the case, as more and more people get higher levels of qualifications. Brown, Lauder, and Aston (2011) explore how multi-national employers are increasingly off-shoring legal and IT work, which

has the effect that young people in developed countries who made educational investments, often at considerable personal expense, in the hope of achieving well-paying and rewarding jobs, are increasingly less likely to access these jobs. Newfield (2010) discusses the casualization of academic work in the United States, for example, which shows how relative power in labour markets, and not qualifications, skills, or knowledge, that determines how work is valued and rewarded.

In many countries education provision has become relatively more equal, but income distribution has become more and more disparate; in others rapid growth in education has not led to equivalent growth in the economy (Lauder, Brown, and Tholen 2012; Livingstone and Guile 2012; Brown, Lauder, and Cheung 2020); this is clearly the case in Africa (Bashir et al. 2018; Allais 2020). Collins (1979; 2013) suggests that educational expansion is not driven by technological requirements of work, but rather by the inability of labour markets to absorb labour. He argues that rising demand for education absorbs increasingly surplus labour by keeping more people out of the labour force; he suggests that in places where the welfare state is unpopular for ideological reasons, belief in the importance of education supports a hidden welfare state.

For our purposes in this paper, the point is not the empirical validity or applicability of human capital theory, but its usefulness in designing policy interventions. Failing to distinguish between the screening role of credentials in labour markets and the substantive requirements of skills and expertise in workplaces can lead to confused policy interventions. Because it aggregates up from individuals, it does may not take sufficient cognizance as to what is needed to support the development of skills and expertise as well as the demand for skills and expertise in labour markets. For example, the ability of VET and other education programmes to prepare individuals for work is shaped by the ways in which work is organised (Lloyd & Payne, 2003; Grugulis & Stoyanova, 2011; Green, Hogarth, Thorn, Macleod, Warhurst, Willis & Mackay, 2017; Guile & Unwin, 2019).

Social and economic factors shape education systems: they shape people's access to education because of variations in the quality of education that people can access and because of the duration of that education (how long people can afford to stay in education or out of employment). Socio-economic factors are also key to educational success (Allais, Cooper & Shalem, 2019). Labour markets shape both the length of time people want to stay in education and whether they are obligated to stay in it. The nature of the economy also shapes the relative number of enrollments in general education compared to vocational education, the relative size of university enrolments, and the nature and extent of on-the-job training.

Skill formation systems

A well-developed mid-level theory in this regard is Varieties of Capitalism, which is powerful because it shows that in five key spheres (industrial relations, skills, corporate governance, inter-firm relations, and employee relations) interactions between firms tend to cluster in patterns of institutional complementarities. Through this analysis, the Varieties of Capitalism literature has been drawn on to explain why some wealthy countries have strong apprenticeship-based vocational education systems with large take-up, and others depend more on higher levels of general education. Literature on skill formation systems, largely within institutional political economy, builds on and critiques these insights highlighting key dimensions of variation of VET systems within wealthy capitalist countries (Hall and Soskice

2001; Thelen 2004; Busemeyer and Trampusch 2012b). Work in this tradition starts not from descriptions and comparisons of education and training systems, but from the political and institutional arrangements which arise from firm interactions in national countries and economies. It foregrounds ways in which both economic factors, including labour market regulation, collective bargaining regimes, welfare policy, and industrial policy; and political factors, including degree of federalization and type of election system, shape the demand for skills and lead to specific institutional arrangements and different types of provision and programmes (Busemeyer and Trampusch 2012a; Martin 2017; Oliver, Yu, and Buchanan 2019; Thelen 2004; Hall and Soskice 2001; Iverson and Stephens 2008).

Dramatic differences in the size, strength and status, and nature of vocational education systems in wealthy industrialised countries are argued to have been shaped by institutional arrangements and the roles of different actors in the process of institutionalization, as well as political and economic policies and cultural practices and values. In short, the relationships between VET systems and political, economic, and social arrangements are not coincidental, but intrinsic to different types of capitalist economies. Formal VET provision systems in wealthy countries tend to look very different from each other because they developed to meet the needs of specific economic sectors, and because they are embedded in specific industrial relations as well as broader social policy (Thelen 2004; Busemeyer and Trampusch 2012b; Hall and Soskice 2001; Bosch 2017).

With a few exceptions in Asia and Latin America (Ashton et al. 2002; Maurer 2012; Sancak 2022; Bogliaccini and Madariaga 2020), the institutionalist and political economy comparative approaches have had limited application in the developing world. Its firm-centric starting point reduces its purchase in contexts of high levels of informality and unemployment and low levels of industrialization, as well as in contexts where firms are mainly not in dominant positions in global value chains; its focus on national patterns is very limited for countries that have less control over their national economies.

The absence of systematic theorization of skill formation as part of the nature of economies in LMICs may lead to a default reversion to an implicit HCT approach in skills interventions. Given this absence, there is also an absence of a clear set of interventions—the approach does not lead to simple linear interventions, precisely because it presents a set of complex and inter-related factors, all of which affect each other. What it does foreground is why interventions focused only on attempting to develop specific skills in specific individuals, or to change the nature of provision in certain areas, often do not lead to the desired results. By contrast, a variety of interventions are premised on Human Capital Theory in terms of an implicit or explicit theory of change. Some are very simple, such as interventions focused on the provision of specific skills to specific groups of individuals, with the view to improving their income or ability to generate an income, or specific training interventions in workplaces. Some are more systemic—for example, reforming secondary school curricula, with the assumption that changing the content of the curriculum or pedagogy within the school system will lead to skills, knowledge, expertise, or behaviours that will make individuals more productive at work. Within this sphere of interventions, a more systemic approach is based on an assumption that skills interventions often fail because they are not producing the skills needed by the economy; this leads to interventions in the area of skills anticipation, which is a huge area of intervention in many Low- and Middle-Income Countries (LMICs) as well as interventions designed to bring VET closer to employers.

Research into the role of donors and development agencies

Starting from Kenneth King's seminal contribution, and moving to more recent contributions, we consider research focused on education and development agencies, and the roles and strategies of different development agencies working in education in general and TVET and skills in specific. We show that what seems to be constant, notwithstanding some fluctuations, is a focus on skills as key to support industrialization and economic development. Part of this has been an emphasis (at least in policy intent) on seeing education within broader social and economic development trajectories, but often translated into rather narrow and localized interventions. These kinds of interventions are typically operationalized through attempts to use skills anticipation and employer engagement to embed VET within this broader approach to economic policy. However, the result remains the implementation of interventions that focus on a few specific supply-side policy levers, which in general do not address the broader economic changes required. Within this context, the idea of 'skills mismatch' returns via the backdoor to the notion of individual skills as the key factor. This has in turn seen competing views being articulated on the role of skills in advancing the inclusion of disadvantaged groups into labour markets as well as the role of the government in ensuring 'relevant' skills coupled with the privatization or quasi privatization (through short term performance-based funding) of technical provision.

Kenneth King's (1991) study was a landmark in the field, because he provides a systematic overview of donor interventions in education, with a particular and highly influential analysis of TVET in specific. He argues that many donors were historically very interested in this type of aid—seen as obvious first step for supporting industrialization; attraction to the notion of the practical, the technical, the vocational. By the early 1960s it was becoming obvious that popular demand for academic secondary education would outstrip supply of jobs in the formal sector, but it was hoped that if formal secondary education offered a more diverse set of skills, support for it could be justified. This explains an emphasis on diversification of secondary education from the early 1960s—still strongly prevalent today, for example in a recent report from the Mastercard Foundation on secondary reform in Africa (Mastercard Foundation 2020), and in current policy reform in South Africa.

King discusses the path dependency of the low status of vocational education, from the legacy of colonial powers which 'widely assumed that there was something peculiarly appropriate about industrial education for subject peoples' (King 1991, 61). He argues that this was truer of British and Belgian colonial governments than French, and also discusses the strong influence of philanthropic institutions from the United States (US) focused on African American education. This confronted governments after independence, who also tried to push vocational curricula, but, as is discussed elsewhere, struggled to overcome the stigma which continued because academic high schools, initially directly and later because they funneled youth into universities, led to elite jobs mainly in government and state-owned enterprises (Forster 1965; Nherera 2000).

King argues that evaluative work was a strong component of work on vocational education by agencies, and also shaped the nature of interventions. In many cases agencies had dedicated units or entities for vocational education. In fact, he argues that one of the reasons for TVET being a focus for development aid is that it lent itself to evaluations of individual projects, in terms of isolating 'what works' and what is 'most efficient'. He also noted that what has been consistent over time is a strong role for the World Bank in leading the policy

agenda in this space. Because of this, he provides an overview of two major World Bank evaluative studies, which we also considered in their own right. The first is Dougherty (1989, 1) who argues that there is

A tendency by planners to overestimate the need for extended pre-employment training for entry-level jobs. This bias is reinforced by wishful thinking that training can provide an easy solution to the problem of mass youth unemployment.

The key argument which Dougherty made was that it is important to build on existing systems, and that different parts of education and training systems should play different roles and should not compete with each other. He also suggested that vocational education may not be efficient and should not be the focus of support in secondary education.

Dougherty also points out the complexity of understanding the effectiveness of training interventions, caused by the fact that:

... training is infinitely more complex and diversified than formal education. Training providers are more heterogeneous and dispersed, course lengths range from hours to years, applications range from the purely manual to the most abstract. In imposing some order on this chaos it is difficult to avoid what Claudio Castro calls the pit falls of generalization and aggregation, the first being an unwarranted presumption that a particular training arrangement will be equally effective in other contexts (for other occupations, or for the same occupation in other countries), and the second being a tendency to neglect the variety of training provision that is masked by the use of such terms as apprenticeship or vocational education. (Dougherty 1989, 1)

And also because of:

... the interdisciplinary nature of training itself. It involves both technical specialists and economic evaluators and there is so little overlap between their spheres of expertise that a communications gap appears to be the rule rather than the exception. This can be observed all the way from the highest levels of national and international planning agencies right down to the enterprise level (Dougherty 1989, 1).

The second large and influential World Bank report was Middleton, Ziderman, and Von Adams (1996; note that this 1996 report is the published version of an earlier version which King considers; we have considered the later version but also looked at King's analysis of the earlier one). They focused on how training is affected by macro-economic policies and argued that governments should intervene in decisions about wage and employment policy, technology, social policy, protection, monopoly, competition, et cetera, *together with* interventions in skills. They also suggested that distortions arise in inwardly focused, planned, protectionist economies. Like Dougherty, they argued for the importance of diverse strategies and asserted that government provided training should not be the core of vocational skills development; rather, government should focus on ensuring that general education produces the foundations while the private sector should provide training. King (1991, 86) argues that the World Bank view was premised on the understanding that, 'almost by definition' private training will be 'productivity-oriented and accountable'. The state should be the monitor and arbiter, not the universal provider. This basic policy logic has influenced many generations of TVET reform, and still underpins many interventions in so-

called ‘competence-based training’ reforms in many low- and middle-income countries today.

King (1991, 87) says, what the World Bank was really proposing was a new form of ‘manpower training’. The difference from previous was that instead of the tradition of estimating numbers of skilled people in relation to vocational training centres, they were proposing an attempt to recognize:

that the human resource system is inevitably affected by the macro-economic structures and frameworks in the state as a whole. In practice this will involve identifying not only the negative impacts upon training rigidities in the economic framework, but also monitoring changing patterns of demand for skills, in situations of dynamic technological change.

As King points out, this was a tall order. Perhaps the biggest contradiction that we see between policy strategies and actual interventions is a failure to really engage with what such a macro-perspective would mean in practice beyond a focus on understanding changing trends in demand for skills and the privatization of training. These interventions, tied to the concept of employer engagement, are also tied to the assumptions that this would lead to responsiveness and efficiency. This approach focuses on a few variables from the complex macro picture and suggests that they on their own can be change drivers. This argument was also tied to the view that training should be productivity related, and therefore should not be seen as the solution to youth unemployment or a variety of social ills.

Turning from King’s important contribution to subsequent research into the role of donors and development agencies, we find that similar observations are made.

Elfert (2021), also reflects on the dominance of the World Bank in setting the policy agenda in this space, describing a power struggle between UNESCO and the Bank over education in specific, and suggests that ‘to the detriment of UNESCO, the World Bank became the powerhouse of a global governance structure that was built with support from the United States government and furthered by the rise of economics’. This issue—the power struggle discussed by Elfert—was also highlighted by Valiente, who raises the dynamic of institutional positioning in relation to OECD education and skills strategies. He describes the ‘growing desire of the Directorate for Education and Skills of the OECD to play an important role in the definition of the global education agenda for development in the post-2015 scenario’ (p. 46).

In terms of the substance of the OECD’s Skills Strategy, Valiente (2014) argues that it introduces some significant policy innovations. In particular, it aims to move beyond a ‘traditional human capital approach’ by ‘incorporating some of the analytical contributions of the new political economy of skills’ (p. 46). This innovation, he argues, suggests that education and training systems should become ‘integrated into national skills strategies designed to upgrade the demand for skills of an economic structure that is unable to absorb a highly skilled workforce’. Valiente (2014, 46) argues that ‘This policy shift should be very much welcomed by those who have criticized the neo-liberal orientation of skills agendas and the inhibition of the state when faced with the structural crisis of employment’; in other words, he suggests that the OECD is focusing on addressing employment issues together with education, and not seeing the latter as the solution to unemployment.

One reason, perhaps, for the inability of countries or development agencies to develop holistic approaches to education and skills located in broader approaches to development relates to funding. Middleton (1988) argues that funding to secondary vocational schools declined in the 1980s:

Most simply put, a considerable body of research demonstrated that such schools were not cost-effective (Psacharopoulos and Loxley, 1985; Psacharopoulos, 1986; Lauglo, 1985). The criteria of effectiveness of primary importance in these studies were labor market outcomes—employment rates, earnings and social rates of return. While academic outcomes were, in many cases, comparable with academic secondary schools, higher costs lowered returns. (Middleton 1988, 223)

This is rather predictable, given the economic context of structural adjustment. Nearly 30 years later, in a review of donor and development policies, Mercer (2014) argues that a key challenge for developing countries is that they simply don't have the resources for all the educational priorities that are prioritized. Because of this, 'many countries have looked for and continue to look for support through ODA to fill the funding gap' (p. 30).

Mercer (2014) starts from the premise that the overriding focus in development policy has been on poverty reduction and economic and social development. He argues that education policy has been located within these, in the belief 'that relevant good quality education for all is a crucial driver of overall development' (Mercer 2014). Within this broad scope, he looks for noticeable trends in policy and investment priorities, and the extent to which evaluation of practice has fed into policy making processes. After reviewing a large number of donor policies, he argues that for the most part 'support to education is part of wider overall development policies reflecting the fact that education processes and systems cannot operate alone'. (Mercer 2014, 30). At the level of policy,

This has led to the emergence in donor policies of a comprehensive approach to education. Common features of such an approach are recognition of the interconnections between different levels and parts of the education system, the placing of education within broader social and economic development and the linking of TVET to the needs of the labour market. (p. 30)

In other words, there is a broad approach to education, which recognises the different components of an education and training system, and sees them as located in development strategies and as part of broader agendas, but this leads to a complex set of education interventions which then cannot be funded.

Turning back to the point highlighted previously, about the World Bank's attempt to identify and isolate key change levers, an issue that comes up in the literature is a focus on 'skills mismatch'. Adely et al (2021) suggest that this discourse is invoked in order to essentially return to the traditional human capital approach which Valiente suggests there had been a move away from, because, they show (considering the MENA region) that it is used to blame youth for unemployment. The assumption is that if individuals are able to attain the skills required by industry—made possible either through skills anticipation and/or building relationships between TVET institutions and employers—then individuals could access employment and employers would have skilled employees, allowing them to be more productive. The interventions thus focus on policy levers such as skills anticipation mechanisms, employer engagement, efforts to align curriculum with demand, and a strong

preference for private providers as the vehicle for TVET. Adely et al (2021) argue that ‘the skills mismatch discourse has near unquestioned status as a development truism’ and ‘elides the structural inequalities that shape access to quality education and stable employment’.

It is important to note that within debates about development, a key shift has been away from a focus on economic growth only, to a focus on a range of social development indicators (the human development index) or a focus on what individuals value and therefore aspire to do (capabilities literature). But this shift in how development is measured and valued does not necessarily imply different paths to development—indeed, sometimes it leads to a focus on targets that are easier to agree on in international communities, while not tackling the difficulties of paths to development, which touches on complex global power relations and vested interests. Reinert (2006) argues that this has led to a ‘palliative’ approach to development; in other words, a focus on a set of outcomes that are seen as effects of development (eg rising levels of educational achievement) without any engagement with how change takes place and the imperative to address the nature and structure of economies.

3. METHODOLOGY

In the empirical component of our research, we reviewed publicly available strategies and reports focused on TVET, skills, and education strategies from a selection of organizations, including development banks, country donor and development organizations, multilateral organizations, and philanthropic organizations and foundations. We then conducted a small, targeted set of key informant interviews, with 10 individuals, from three Country Development Partners, one UN agency, three Development Banks, and one Foundation.

We focused on understanding the location of education in general and skills interventions in specific in the broader structure and work of the agency in question; how important TVET is in the broader areas of work; the relative focus on vocational versus general education including interest in vocationalizing the secondary school curriculum; and what problem they are trying to solve. We probed relationships between formal and informal work, and youth unemployment. As part of attempting to distill theories of change from descriptions of policies, approaches, and interventions, we also consider, where possible, what is evaluated and how evaluation takes place, or how success is understood. For document analysis we focused on strategic documents containing at least implicit theories of change that address TVET and found that these typically reference youth and focus on new entrants. We also looked for documents related to worker education and education in general with a view to understanding how these spoke to TVET and the extent to which the Theories of Change or Strategies that are in place explain how these different components of the education and training system are described in relation to each other and their interconnected and inter-dependent nature.

4. FINDINGS

In this section we outline the findings from the empirical research and indicate how different ways in which the different elements of a theory of change emerge in documentation and

through discussions about VET interventions. We begin by describing what is seen as the core problem to be addressed. We highlight that a shift in understanding the core problem—from a focus on poverty reduction to a specific focus on youth unemployment—has placed a growing expectation on VET as a component of the education and training system that is seen as ‘closest to the labour market.’ This move is explained by the different assumptions—both explicit and implicit—that we picked up regarding what are seen as the key levers of change. These assumptions reflect tension, as outlined in the research literature in Section 2, between an approach that focuses on the development of individuals’ ‘skills’ as an answer to access for new entrants to the labour market through improving productivity, thereby contributing to inclusive growth and in turn increasing opportunities for new entrants; and an approach that is more relational, situating education and skills as part of broader development trajectories. We then provide some examples of interventions that flow from potential change levers. These interventions exist in a continuum from those focused on building specific skills for individuals (groups of individuals); those that are systemic but focused internally on the education and training system including in terms of how it responds to the world of work; and those that seek to intervene across systems of education and training and the world of work. This overview is followed by reflections on the kinds of achievements that are anticipated and a consideration of the challenges that emerge from the ways in which change is measured.

4.1. Problem, and assumptions about underpinning problems

There is one single core problem that emerges as what most organizations are seeking to address when focusing on TVET: the **problem of the large number of young people that do not have access to employment or are underemployed and without access to sustainable income generating activities.**

This wide-spread notion of the core problem to be addressed is located in a range of different explanations about the causes of unemployment and underemployment. For example, there is a recognition that structural constraints in economies cause a lack of jobs. However, the recognition of structural unemployment does not seem to translate into the way in which the first major assumption: is articulated, which is that it is poor skills, or a skills mismatch, that contributes to youth unemployment and underemployment, which can deepen poverty and pose a threat to social cohesion and stability. This perspective is located in the assumption that ‘human capital’ is crucial to improving individual and national prosperity.

Assumption: Knowledge and skills are human capital that improves individual and national prosperity

The core assumption held by most organizations is that a focus on the development of individuals’ skills is building ‘human capital’, which will improve access to the labour market, enhance productivity and therefore contribute to growth and enable access to labour markets, thereby improving inclusivity, and in doing so contribute to increased cohesion. As expressed by one respondent,

By improving their skills, health, knowledge, and resilience—their human capital—people can be more productive, flexible, and innovative.

Because skills are understood as ‘human capital’, the idea is that skills create opportunities to establish a virtuous cycle between physical and human capital and growth and poverty reduction. This view was reinforced by a respondent who expressed the view that there is an increasing demand for countries to develop more advanced skills for going up the value chain. The key informant continued to state that,

... there is a focus on knowledge based economic growth and a focus on higher order skills emerging from our partner countries.

The key informant concluded that countries focus on investing in skills to increase the competence, and competitiveness, of sectors within these countries. We find similar perspectives in documentation.

A report of the African Development Bank states that,

Africa records the world’s lowest school enrolment and quality, leaving over 90 million teenagers struggling for employment in low-paid, informal sector jobs. Unemployment and underemployment of youth and females endanger social cohesion and inclusive development. These coupled with the mixed effects of limited access to quality education, health, nutrition, technology and innovation are strong warning signals to sustaining Africa’s growth and entry into higher value-added areas of production and competitiveness. Failure to tackle such formidable backlogs will deprive a whole generation of opportunities to develop their potential, escape poverty and support the continent’s trajectory toward inclusive growth and economic transformation. (African Development Bank 2014, iv)

They therefore turn to the concept of ‘human capital’ as defined by the World Economic Forum: ‘the ‘acquisition and deployment of skills, talent, knowledge and experiences of individuals and/populations and their value to organizations, economies and society.’ They argue that, ‘human capital is in economic terminology, an input (a necessary condition) to achieving inclusive and green growth’. The Bank further describes their contribution to human capital formation as part of their overarching contribution to inclusive and green growth and concludes that,

Human capital is at the heart of the Bank’s inclusive and green growth agenda—and its fight against poverty, gender inequality and social exclusion in Africa. The human capital agenda focuses on developing skills to boost productivity and competitiveness, tapping on technological innovations, and creating jobs; enhancing citizens’ voice to improve the quality of public services and the efficiency of public spending; and providing safety nets to protect the poorest against economic and social shocks. (African Development Bank 2014, 13–14)

The Asian Development Bank makes a similar observation and states that, ‘learning throughout life is becoming one of the keys to sustainable development, poverty alleviation, and social development’. Developing this argument, the bank states that there is a ‘growing consensus’ among developing member countries and development partners that ‘countries must reach and maintain a critical level of basic skills for societies to have the social and economic means to grow and prosper’. As such, the bank focuses on strengthening the education systems of developing member countries, with a view to facilitating their competing in the global economy (<https://www.adb.org/what-we-do/sectors/education/overview> accessed 25th July 2022).

The OECD’s *Skills Strategy* echoes this perspective and states that,

Countries in which people develop strong skills, learn throughout their lives, and use their skills fully and effectively at work and in society are more productive and innovative, enjoy higher levels of trust, better health outcomes and a higher quality of life. Skills policies play a central role in paving countries' development path by, for example, easing the adoption of new technologies and moving up the value added chain; they also make countries more attractive to foreign direct investment and tend to help foster more tolerant and cohesive societies ... To thrive in the world of tomorrow, people will need higher levels and different types of skills. (OECD 2019, 3)

And the OECD's education strategy states that,

Over the past 200 years, education systems have developed into major engines of economic growth and prosperity, state and community building, and social progress. By developing the knowledge, skills, attitudes and values on which societies rely, forging social cohesion and preparing people to become and remain competent workers and active citizens, education has shaped the world we live in today. In particular, the expansion of education and the increased supply of skilled workers and citizens have fostered democracy, the emergence of inclusive social and economic institutions, and the transformation to innovation-oriented knowledge societies. (OECD 2021, 3)

The OECD also recognizes the complexity of attitudes to education, and that trust in education and training systems is shaped by social stratification; they argue that an erosion of this project will have broader implications for society:

... when the engine of social mobility starts to sputter, trust in school systems falters and young people from vulnerable backgrounds may no longer invest their time and energy into schooling. The consequences of this will be felt beyond education when people lose trust in the "social contract", become defiant towards the "system", embrace populism and turn away from democracy. (OECD 2021, 5)

This statement is illustrative of what we generally found to be nuanced perspectives on the complexity of the roles that education places in society, despite a widespread strong emphasis on the role of knowledge and skills in building 'human capital'.

Assumption: Skills deficits are holding back inclusive growth and poverty reduction

The inverse of the assumption that skills are key for individual productivity and national growth and development as outlined above, is the argument that it is the lack of relevant skills that is a major barrier to inclusive economic growth. An analysis of documents from a wide range of donors, development agencies, and development banks illustrates that an assumption of 'skills mismatches' is shared by many (most) development partners. This perspective is illustrated in this quote from the African Development Bank, which is fairly typical:

Africa lives a paradox of rapid economic growth with poverty and inequalities having striking effects on youth and women. The labour market disarray marked by rising skills mismatch, low productivity in the informal sector, unemployment and underemployment against a rising youth population set to reach more than one billion by 2050, reflects a generation at risk (African Development Bank 2014, iv)

The Bank explains further that,

The Bank will support investments in skills and technology development ... through knowledge work, policy dialogue and lending operations. Interventions will address the daunting challenge of youth and women unemployment and underemployment by tackling labour market skills mismatch and low productivity predominated by the informal sector, which employs many youth and women.

There is a general, although sometimes implicit, assumption that underpinning the main problem of youth unemployment and under-employment is a skills problem. As explained by one of our respondents:

Skilling and broader education are very important ... because that's what gets young people into the workplace fairly quickly. If they have the right skills, the skills that are demanded in the market, it will enable them to find relevant opportunities whether they go into employment or create their own.

The OECD's working paper on transitions from education to work in developing economies points out that youth in low- and middle-income countries are much less likely to be either employed or in education and training than their counterparts in wealthy countries. The working paper also points out that these youth,

... tend to leave education earlier and have longer transitions to work, characterized by a higher incidence of NEET¹ and informal employment. (Quintini and Martin 2014, 4)

There is a strong view that even when there is growth and demand for labour, young people lack the experience and skills to take advantage of these job opportunities, which leads to young people being in less secure jobs with few opportunities to navigate their way through the labour market. Key informants widely expressed the view that underlying the problem of unemployment/ underemployment is that individuals can't access rewarding work opportunities and employers can't be productive and grow *if individuals don't have the right skills*.

Similar arguments are made in the World Bank's 2017 Enterprise Survey, which found that 21 percent of firms identified an inadequately educated workforce as a major constraint², particularly pressing in Brazil, Mexico and Kenya. Examples of the views expressed by different agencies in this regard include:

Globalisation, an increasing pace of innovation and digitalisation bring along major challenges for many developing countries. One of these is the availability of competent, well-trained specialists. A shortage of skilled workers prevents companies from flourishing and creating enough decent jobs. Ultimately, this also impairs the economic growth of a country (<https://www.seco-cooperation.admin.ch> accessed 25th July 2022)

¹ NEET stands for Not in Employment or Education and Training

² World Bank. (2017). Enterprise Survey. Washington DC: World Bank. Accessed online from: <http://www.enterprisesurveys.org/data/exploretopics/workforce#--7> [Accessed 3 March 2018].

Consequently, there is a strong focus on skills as the *key problem* to be addressed in the short term as key to realizing wider change. The inverse of this is the idea that changing skills profiles will lead to economic change: UNESCO, for example, suggests that VET can facilitate the transition to green economies and sustainable societies (UNESCO 2021a, 15)

This assessment of the way in which development partners understand the problem does not negate recognition, widely expressed in documents and key informant interviews, that *unemployment/ underemployment is a 'wicked problem', with complex reinforcing interactions that call for a continued focus on the education and training system as a whole together with an understanding of the different elements of the economy.* For example, the African Development Bank talks about the need for a range of interventions and approaches, not limited to skills:

A lack of technical and employable skills, information on jobs and access to capital has limited young people's abilities to fully use their skills and contribute to the dynamism of the private sector. *So increasing support for entrepreneurship and creating an enabling environment for good-quality job creation for Africa's youth remains crucial for promoting economic growth, productivity, innovation and employment.* (African Development Bank 2014, 4, our emphasis)

And one of our key informants commented that,

We never look at skills and TVET as a stand-alone intervention. It has always to be connected. If you don't have that labour demand side, there is not much you can do with the skills you promote. I would say enterprise and employment are a high priority, before creating the skills.

Overall however, what we find, as discussed below, is that *while both interviewees and documentation present a picture of complexity, where education is one ingredient amongst many, with no expectation that education on its own can shift things, further analysis of the problem tends to focus on education as the solution.* This in turn leads to an emphasis on providing specific skills to specific individuals, without any effective integration with economic development strategies.

Further, what is evident from the above is that many education and development policies assume that literacy and primary education play a key role in poverty reduction, while secondary and higher education is crucial for economic development in the global 'knowledge society' (ADB, 2020b). Within this argument about the need for a continued focus on addressing problems relating to access to Early Childhood Development, schooling, and higher education more broadly, is the view that as stated by a key informant:

TVET is the major gap that has been detected, and where more interventions are needed. The universities are normally much stronger than TVET institutions, there is general attention to that.

The informant added: 'governments stated that they don't have a problem with higher education. Even when we said, please design a higher education intervention?'

Assumption: VET as an immediate solution

Reports and key informants emphasize the importance of VET, arguing that if countries can be proactive in the way they adapt their training supply in a context of rapid technological change, then VET will benefit individuals, economies, and societies. As articulated in an important UNESCO publication, the idea is that VET systems should supply firms, and economies more broadly, with the skills needed for inclusive and sustainable growth, so that

young people and adults have the skills they need to thrive in the world of work will evolve rapidly, and the capacity to handle change. VET is also seen as having a role to play in equipping youth with the knowledge, values, skills, and attitudes they need to understand their rights and empower them to engage and promote a just world of work and just societies (Marope, Chakroun, and Holmes 2015).

A key informant commented that before 2018 their institution did not have a view on VET and skills. The respondent indicated that their focus was on access to first 12 years of education, and specifically supporting effective primary education, and ‘skills system strengthening work less so’, but they now prioritize VET and skills. The respondent explained this shift stating that ‘we see an increased demand for TVET and skills’ within the context of the shift from a focus on ‘small scale work at country level focused on supporting youth, youth voices, youth empowerment’ towards a strong prioritization of the need to address youth employment. The respondent commented that,

In that time (2015 to 2018) there was a decision made that a fund should be set up, but not what it would be spent on. Then there was a huge consultation period with networks and country partners, about what would best support economic growth. Everyone was calling for TVET, everyone was calling for skills. it was interesting and very surprising.

Another key informant stated that,

TVET and skills is the focus, this is where we can have an added value on the labour force. In the broad agenda of the institution skills has always been there, skills and TVET, particularly in the last decade. In the last 4 or 5 years, when we transitioned to the future of work agenda which is aligned to the 2030 agenda, looking at how the world of work is changing this is where skills have gained a lot of visibility. It had been neglected as an area of work. It has taken a new dimension from the perspective of enhancing human capital, human capabilities.

A similar argument was made by other respondents who indicated that when looking at the different components of the education and training system, decisions to shift towards VET were made. The Asian Development Bank notes that raising the productivity and incomes of workers in the informal sector and enterprises in key nonfarm economic sectors can be supported through investment in upgrading the skills of master craftspersons (ADB, 2015a). Documentation describes an extensive portfolio of employment-related projects, ‘including more than USD 1.6 billion of investment in education, with 34 percent of those funds going toward technical vocational education and training over the past decade.’ (ADB, 2018b). In another document, the Asian Development Bank (ADB, 2022b) suggests that ‘Technical and vocational skills among the youth are also seen as critical tools for promoting peace and inclusiveness in fragile contexts and for livelihood in rural economies.’

This emphasis on VET rests on the assumption that while education and training is generally important, it is VET that needs attention as it is the ‘weak link’ This argument is well articulated in the following comment made by a key informant:

At the heart it was how do you drive growth? Seen as how do you increase productivity? People were looking at the labour force and saying, which part of the labour force is currently not productive? TVET systems were not meeting demands,

employers were bringing in skilled workers from overseas. Basic school interventions might help, but people still need technicians.

The focus on VET and its potential to expedite greater levels of access to labour markets and in turn, the development of more productive labour markets was in part because of its perceived ability to accelerate the transition of new entrants into the labour market:

I've been working on developing skills projects in the [organization] for the last 12 years. When I started and I started working in the education sector working mainly with education ministries that had TVET under their mandate and mainly with TVET colleges that did long term training. That is what drove the shift. The [organization] was not happy with the outcomes of a lot of the projects especially in the African region and South Asia region. Projects were not achieving what they set out to achieve in terms of employment, completion. More and more country directors were interested in short term programmes that could get people into jobs quicker. That would be better than these very rigid academic programmes.

This argument, that VET *could* provide a way to get individuals into work faster than higher education, was made by another key informant:

The fact that they have shorter timelines to work. You get too many young people saying we finished university five years ago. *In most cases and when done right one can access employment within three months.* Within three months or less they are employable, or they can be employed. Young people need to get into a place where they are able to earn an income.

The key informant went on to explain that to make these transitions young people need the requisite skills and stated that,

If they had the right skills, the skills that are needed in the market, if they had been exposed to opportunities that are coming up in work, if there are strong linkages and work readiness skills, that allows them to get to a place that allows them to get dignified income. So in terms of the targets of getting young African people into dignified work, we are improving opportunities for young people. We are giving them the opportunity to see TVET as a pathway not a last resort.

VET is therefore also seen as cost-effective relative to higher education. Rising university enrollments along with full public subsidy of tuition costs in many countries, as well as student loan and bursary systems, have led to poor quality and relevance of provision. In the context of a lack of jobs, this becomes a severe problem. A key informant commented that,

If the practical training is strengthened overall and connected directly to what the market is demanding, *there is no doubt that TVET can be a huge contributor to youth employability* in a diverse market because you know when you look at TVET today it's at the bottom of the pile in terms of interest for young people pretty much across all countries that I've come across if you can't make it to university or any other thing. *And that's because it's been under resourced, and it's not been well presented.*

Of course, the emphasized sentences point to where the contention is, and also, the source of analysis that leads to interventions. The research literature and key informant respondents were candid that there are not many examples of 'when done right', therefore enabling 'access to employment within three months'. Nonetheless, this is the driving logic. That is, the idea of VET as 'closer to labour markets' and that short courses enable people to get

into work faster permeates all of the assumptions about the potential role of VET. However it is also clear to all respondents that VET systems are not actually working and are not actually getting people into work in the desired ways.

The discussion above points to something of a contradiction: both in the documentation and key informant interviews, what comes out strongly is that VET is the solution because its *raison d'être* is to get people into work, but also, that it is not the solution because it is not actually doing this. The inevitable assumption, then, is that what is needed is to 'fix' VET.

So while the core problem is under- and unemployment, and while an assumption is made that skills deficits are a substantial cause of this problem, the next assumption is that skills deficits can **often be attributed to failures in the supply of education and training system and specifically within the VET system**, which is described as 'closest to the labour market'. The reasons for this failure of the VET system is a subject of considerable debate, and the articulation of these problems becomes more specific as players narrow down to their work.

Before discussing this, we need to note that not only is VET seen as central to solving skills deficits that are seen as a key cause of youth un- and under-employment, but some organizations see VET as solving other problems as well. For example, UNESCO's 2016 to 2021 strategy also seeks to address the problems of youth unemployment and a perception of inadequate levels of entrepreneurship, but adds the problems of high levels of inequity and gender inequality; the challenge of facilitating the transition to green economies and sustainable societies; and preventing migration, disengagement from society, and reduced economic participation, and violence stemming from dissatisfaction about society and economic developments and opportunities (UNESCO 2021a).

Assumption: That for VET to be the desired solution, it needs to be 'fixed'

The expectations from 'fixed' VET systems are high, made more complex by the reality that these expectations compete with other.

One aspect of fixing VET is getting more people into VET, as argued here by the African Development Bank (African Development Bank 2014, 1):

Over the next 15 years, roughly 600 million children born at the beginning of the 21st century will be the key workforce of the continent. To benefit from the demographic dividend and build a highly skilled labor force, Africa's cohort of high school and technical and vocational education and training (TVET) graduates needs to increase significantly.

The Asian Development Bank also argues for increasing VET enrollments to 20% of all secondary students (up from 3%). The expansion of VET should provide the poor, adolescents, young adults, and students in grades 6–7 or their equivalent with access to VET. (ADB, 2015a).

But there are multiple tensions regarding the emphasis on expansion. Some respondents suggest that there are concerns about the massification of higher education, including the potential problems of supply exceeding demand. A key informant stated that 'everyone goes into higher education, you are getting engineers who are working as uber drivers.'

Respondents argue, however, that this does not negate the need for higher level technical skills. This was illustrated by the respondent, who elaborated that,

Countries are trying to make productivity relevant. How do we get the people who will be leading that 4th Industrial Revolution and who will be working in advanced manufacturing? We are looking at higher levels of TVET that are not currently delivering the pipeline.

What emerges is an idea that there *should* be an expansion within higher education, but that this should not be in universities and instead should be in VET institutions, including post-secondary institutions such as polytechnics and technical universities, which should provide high level VET programmes that are aligned with the specific needs of the labour market.

However, key informants recognize that even while this suggests an expansion in VET, available demand is still only likely to absorb relatively small numbers. This is the nub of the tension between the expectation that ‘fixed’ VET will support the development of highly skilled individuals that are needed in the economy and the expectation that ‘fixed’ VET will support large numbers of young people to access the economy. As observed by one respondent,

... there are perverse incentives of supply and demand playing out in weird ways, which results in a focus on higher education where the problem in fact lies with the need to create income generating opportunities for huge numbers of workers coupled with the imperative to grow those sectors of the economy that can be labour absorbent.

Another key informant observed that,

We need human capital rich absorption. You need industries that can employ huge numbers of lower qualified individuals. Agriculture, manufacturing. We don’t need huge amounts of qualifications and human capital going in

The extent that these expectations—that the expansion of VET can support the development of highly technically skilled individuals required for productivity, and therefore growth, while also enabling large numbers of young people to access employment—may be unrealistic was recognized by some of the respondents in terms of their inability to capture these imperatives in a coherent Theory of Change. For example, a key informant who emphasized that the imperative is to assist vulnerable populations to get into the job market but recognized the role of VET in developing highly skilled individuals, commented that they don’t always take a theory of change perspective, but rather consider discreet outcomes and outputs. This observation illustrates real tension between the assumption that VET can enable individuals to access higher level quality jobs while at the same time VET can address the imperative of inclusivity of large numbers of unemployed young people.

There are a myriad of assumptions about how to ‘fix’ VET

Emerging out of the competing assumptions about the problem that VET will solve are the various assumptions about what it will take to improve VET. This is illustrated by the different views offered as to what is being ‘solved for’; and therefore, the nature of the interventions that are suggested by development partners.

UNESCO (2021a, 19) argues, ‘In order to work towards the SDGs and solving (future) skills-related challenges, UNESCO supports countries to enhance the relevance and effectiveness of their VET systems through building capacities (i.e. providing advice and assistance, developing human capacities, offering information and insight, offering guidelines

and supporting networking and cooperation)'. Similarly, the Unesco 2016 to 2021 strategy argues,

... support the efforts of Member States to enhance the relevance of their TVET systems and to equip all youth and adults with the skills required for employment, decent work, entrepreneurship and lifelong learning (UNESCO 2016, 3)

A key informant observed that, 'the main challenge in developing Asia and the Pacific is to upgrade technical vocational education and training (TVET) so that it more effectively meets the needs of current, as well as future needs of labour markets.' The respondent suggested that one component of this is 'incorporating 21st century and digital skills into TVET programmes to enhance the employability of graduates', because of ongoing rapid economic and digital transformation, which, they argued, means that 'marketable skills tend to have a short shelf life'. They also stressed that the

... key to success remains cooperation with the private sector in TVET planning and delivery centred around work-based training, towards establishing demand-responsive TVET systems. Aligning TVET programs with government economic priorities, in areas such as high value manufacturing and services industries, should be part of national growth strategies. These strategies should increasingly include national initiatives to promote lifelong learning for re- and up-skilling.

This statement alludes to the problem frequently pointed out relating to the absence of strong linkages with employers and weak responsiveness to labour market demand. An emphasis on 'fixing' relationships between education and work is highlighted across the documents included in this review; these emphasise the need for greater levels of alignment within the education and training system and specifically in terms of building linkages between academic education and VET through creating stronger partnerships between VET institutions and employers, improved skills anticipation, and frameworks that enable the codification of economic and labour market demand.

Other assumptions about the elements that impact adversely on the quality and learning including the concern that there is weak institutional leadership and governance; poor course design, teaching, and assessment; as well as qualifications and curricula that are not well aligned to the needs of industry. In many cases, a whole range of different aspects of problems with the VET system is identified and targeted for intervention. A key informant provides an overview of this approach:

The specific programme ... is focused on capacity building of TVET institutions in order for them to be able to deliver market relevant programmes to young people. This has a couple of aspects. One is institutional capacity: training the TVET institutions themselves. The other part is the ministry institutions, the TVET authority, the curriculum authority, the qualifications authority, etc. strengthening the capabilities. Because they are the bodies that oversee TVET from a national strategic overview. There is curriculum, there is training of TVET trainers, there was a labour market assessment to see where opportunities lie and also to capacitate institutions to conduct labour market assessment. There is a strong gender assessment. There is an area around recognition of prior learning: having the institutions ready to assess and certify as well as skill and upskill young people who dropped out of formal education and continued working but without the relevant qualifications to allow them to continue upward. Research: they can work through

TVETs to improve. We have also supported the development of a national TVET blueprint and a national workforce blueprint which will help to guide the TVET system whether it is government, partners. The workforce development is to identify those areas where the future skills will be needed and what types of skills.

The Asian Development Bank (2020b) lists as a typical set of interventions: ‘renovated state management of vocational education and training’; development of academic and managerial staff; development of occupational standards and a national vocational qualifications framework; curriculum and instructional material development; strengthening of standards for facilities and equipment; enhancement of quality assurance; improved linkages between VET institutions and enterprises; improved awareness (ADB, 2020b). All of this, however, assumes enormous capacity for institutional change.

Another factor that is highlighted by respondents relates to the understanding that many young people continue to show a preference for higher education. Respondents offered the view that despite the expectations of VET, young people continue to hugely value higher education and suggest that the low status of VET is a key challenge to increasing enrollments. Respondents assume that ‘fixing’ the VET institutions will change the perceptions of the value of the training provided in this component of the education and training system.

On a somewhat different note, key informant interviews and documents that we reviewed reference the need to strengthen value chains and local economies. For example, a key informant confirmed that skills are seen as a key route to jobs as they increase the levels of competitiveness in specific sectors, whether internal the country or for export, and enable firms to move up the value chain, strengthen the quality of jobs, and move from the informal to the formal sector. However, while there is extensive commentary on the need to ‘fix’ VET, **there is very limited comment on the assumptions that are being made about the ways in which the labour market needs to change to allow for the quality of the jobs that VET graduates access to be improved, or how the economy itself must be transformed to allow SMMEs to succeed and formal employment accelerated.** The absence of these assumptions when discussing the role of education and training is illustrated by an observation made by People First International:

Sustainable growth in MICs is primarily constrained by weak levels of demand in the economy. When these barriers are unblocked, productivity and growth is held back by skills deficits, which prevent firms from filling positions, becoming more productive, and expanding. High-level ‘soft’ skills are often in greatest demand, signalling an important role for HE and TVET, building on better foundations. Many young people – including graduates of HE and TVET – remain unemployed, in part due to poor skills. Women, low-income youth and people with disabilities face significant challenges across the target countries. While enrolments have expanded in recent decades, HE and TVET systems are failing to deliver the right skills due to failings in terms of quality, relevance, equity and cost-effectiveness.³

³ <https://people1st.co.uk/global-reach/our-work-in/africa/skills-for-prosperity-programme-%E2%80%93-previously-%E2%80%98glob/> accessed 21st November 2022

Specific interventions are seldom located in the broader economic and social context.

In short, what can be distilled is the following: youth are un- and under-employed because VET is not doing what it should be doing. In turn, VET is failing because of gaps in capacity (lecturers and resources), poor labour market intelligence, lack of embeddedness in economic policy, et cetera.

And varied assumptions about where VET will be offered, including suggestions that education and training is becoming more 'diffuse'

As indicated previously, an underpinning assumption that is made is that VET should form part of the broader imperative to support 'lifelong learning'. The OECD elaborates on their assumptions about the implications of enabling lifelong learning, stating that this will require 'more than expanding opportunities for adult learning; it will push systems to fundamentally rethink the timing and sequencing of education and skills development over the life course' (OECD 2021, 15) and indicates that,

Front-loaded educational biographies need to evolve into more complex and more diversified learning trajectories throughout life with learning integrated into work and other contexts.

They go on to say that, 'we used to learn to do the work, now learning is the work ... In the future, learning will enable individuals, communities, organisations and societies to translate opportunities into an active sense of agency that is necessary to ensure a good life for all. Learning is about enabling individuals and societies to acquire agency and act for the common good' (OECD 2021, 7); they also say that,

The distinction between acquiring knowledge and skills (in schools) and applying them (in workplaces) is gradually eroding with components of learning, assessing and qualification being renegotiated between both spheres. Employers will become more important in not only providing training and informal learning at the workplace but in engaging in social dialogue about the purpose, relevance and substance of education. It will be increasingly difficult to keep young people motivated to learn in schools when the outside world offers so much distraction as well as inspiration. (OECD 2021, 8)

This is interesting, because presumably people have always learnt in these places. Further, the basis for arguing that the distinction between acquiring knowledge and applying it is eroding is unclear. The OECD perhaps seeks to address this by suggesting that: 'Institutionalised settings remain important in providing spaces and opportunities for learning', however, they continue to say that these institutions 'are gradually losing their monopoly' (OECD 2021, 8). This argument seems to be explained by the assumption that technology shifts the channels for learning:

Technology is also creating new, alternative channels for human learning outside of institutional frameworks. Isolated time and space for learning was necessary when teachers and resources were scarce but the ubiquity of opportunities will allow learning to move beyond its institutional confinement. Enhanced by technology, learning will gradually flow to informal contexts and move beyond age-defined limitations. Countries will shift from qualification-oriented attainment up front to a new distribution of learning and skills development over the lifespan. Technology can support both learning throughout life as well as ways to recognise such learning.

Moving learning out of its institutional and age-related barriers will create important public policy challenges, requiring the development of new partnerships to support learning with innovative arrangements on both the supply and demand side. (OECD 2021, 8)

The whole discourse is also interesting because the lifelong learning discourse emerged in relation to a perception that once people leave formal education, and enter work and life, they no longer had access to education. Lifelong learning was about providing access to *educational* opportunities for these people. This seems to have been turned on its head, raising many questions and tensions. The same report asserts that institutions are core to education, and have evolved over time to serve masses rather than the elite.

This argument suggests that people were learning outside of institutions more, rather than less, in the past and seems to contradict the view that learning is only now, with the increase in technology, ‘becoming ubiquitous.’ Other questions that arise from this assumption relates to the view that learners have more agency and that employers are becoming more important in providing training and informal learning; where is there evidence that learners have more agency? Or that this is resulting in a move away from qualification oriented attainment or that employers are increasing learning opportunities. In general the evidence suggests that they are providing less.

4.2. Interventions and how we measure what they achieve

The previous section provides an overview of the problems that organizations seek to address and the assumptions that are made about how to realise these changes. In this section we provide an overview of some of the main types of interventions being implemented. Providing a systematic and quantified overview of them is far beyond the scope of this review; what we do rather is reflect on the main types, in relation to the problem and assumptions discussed above.

This overview of the interventions is followed by a reflection on four sets of interrelated factors that appear to complicate the relationship between interventions and the extent to which these address the identified problem. The first is the challenge of designing and implementing integrated interventions. The second is that organizations have their own institutional logics—and at times their strategies may be informed by carving out terrain or protecting turf more than real analysis of interventions based on analysis of problems. The third relates to institutional logics within governments that the donor and development agencies work with, as well as relationships between agencies. The fourth is the complexities of measuring the achievement in the VET and youth employment space.

Main types of interventions

There is considerable focus on **strengthening VET providing institutions**—colleges, schools, and institutes—by working with individual institutions to develop their capacity to implement new systems and tools. Other organizations work across the institutional (provider) landscape to improve the quality of VET provision. A key informant describes a combination of the two, in which they work with a small set of identified providing institutions, referred to as ‘centres of excellence’, with the hope that these will then provide support to other providers:

The idea was to strengthen the centres of excellence so they can act as mentors. There are over 2000 colleges we could not work with all them. It was really to support the mentors and the ecosystem. Rather than ignoring the lower levels. So among the mentees we have some colleges including two that work with young people with disabilities spread across the country. We wanted geographic representation across the country not just a focus on a few regions. We felt this is more sustainable because if these institutions begin to work together it strengthens all the TVET institutions they also have arrangements where they can do trainer peer to peer exchanges, access equipment. In the villages they can't have all the expensive equipment that is needed. They can access it through a mentor institution. It was looking at strengthening the whole ecosystem in a simple way that allows the institutions to take care of each other. I believe the sustainability is stronger than trying to strengthen individual institutions.

Another example referred to be key informants is attempting to enhance the quality of VET by **simulating the experience of being in a workplace for learners**. An example of this is a 'mini factory' within a VET institution that can provide employment and support entrepreneurship. A key informant stated that the production units or incubation hubs,

... could be for students in hospitality you end up with a bakery on campus. That bakery is both a teaching facility and a business producing baked goods to an outside market. Young people could be providing catering. Or create a mini restaurant that can serve students or other people. Basically, introducing more entrepreneurship training.

The informant also described another example of how they have embedded simulated experiences into a VET institution stating that when employers wish to,

... introduce new products but don't have the time or space they can bring it into the TVET institution and if you like test it out so that they are at the same time supporting learning and also innovation.

The informant commented on other models where they have intervened to **build the relationship between VET institutions and industry**, citing the example of their work in the dairy processing industry where they ensure that institutions have the right equipment by creating innovation hubs with manufacturers; they are exploring the possibility of funding grants, through the industry association, to support these initiatives.

Another type of intervention aimed at strengthening providers focused on **building college leadership**.

While most of the examples above refer to country-level interventions, there are other interventions that are developed through global platforms, with the idea that they can then be accessed by different actors. UNEVOC, for example, has a set of 'toolkits' as an online resource aimed at building capacity in TVET providers⁴.

⁴ <https://unevoc.unesco.org/home/Toolkits+for+TVET+providers>

Other interventions that focus on transforming VET institutions more widely through **lecturer development, curriculum and learning materials development, generating assessment tools, and the design of different forms of training programmes** including the dual training programme and new VET programmes to provide the skills needed for greening and digitalization. This aspect is integrated into the interventions of the Bridging Innovation and Learning in TVET (BILT) project, a UNESCO intervention which seeks to enable the areas of greening and digitalization. The ADB's Poverty Reduction Strategy Program II (2009–2011 (PRSP II) emphasizes curriculum revision in terms of duration, timetable, increased flexibility, and enhanced market orientation. The Strategy also focuses on attracting more qualified and experienced persons from industry to teach TVET programs and highlights the intention to improve ratio of teacher to student. The Strategy also seek to 'encourage private providers to increase their participation in TVET provision and make utilization of resources for TVET more efficient (e.g., double shifts)' (ADB, 2015a).

Other fairly wide-spread interventions include teacher guides, learning materials, and assessment tools, as well as capacity for external competency assessment.

There is also a range of interventions that focus on **building regulatory institutions**. For example, a key informant indicated that they work with institutions that are responsible for system level work, indicating a focus on the qualification's authority. The respondent explained that,

That organization [the QA body] in terms of policy is leading on the recognition of prior learning which is a strong element of our TVET programme because there is a large group of young people out there in the workplace who can't advance themselves because they don't have the right qualifications. We are working with the QA to see how TVET institutions can be centres for upskilling, reskilling, and certification.

They are also working with the TVET authority itself which is the custodian of all TVET institutions in the country, describing the focus in this way:

Strengthening their management practices. They are driving labour market assessment. Those are driven at the ministry level. That's where they sit. They oversee the TVET space, you cannot work with the individual institutions.

Others focus on building new institutions to solve certain problems: UNESCO describes itself as committed to supporting its Member States in designing and implementing cross-cutting interventions, including the identification of skills requirements to inform VET policies, strategies and programmes, the recognition of qualifications across countries, and the collection and analysis of data on progress towards Sustainable Development Goal (SDG) 4 and related technical and vocational skills targets.

There is a considerable focus on systems, frameworks, and structures.⁵ A key informant emphasized that in order to develop the regulatory institutions there is a need to build strong central support as country capabilities are being developed. A key informant stated that:

⁵ Especially from multilateral structures and development banks.

... understanding skills and future skills needs relates to the area of skills anticipation. Anticipation is not only forecasting but also assessments of skills required by the labour market. It should follow that skills anticipation should inform the strengthening of policy systems and institutions, strengthening the authorities and everything.

Other kinds of interventions that support institution-wide change includes the development of industry-led partnership frameworks, competency and training standards and competency-based training curricula, which are emphasized in a large number of interventions as well as by key informants. The OECD describes competency-based education as ‘an important correction to an educational paradigm dominated by the reproduction of subject-matter knowledge’ (OECD 2021, 13). A key informant indicated that they are working with the TVET curriculum authority as the curriculum is changing to be more competency based:

We have been working with them on the TVET side to train trainers.

UNESCO’s BILT project explains:

The focus is on identification, formalization and implementation of new qualifications and competencies with the objective to develop practically oriented guides for use by TVET stakeholders. The project began in March 2019 and will be finalized by the end of 2021 with the BILT learning forum and dissemination of practical guides.

The assumptions about the increasingly diffuse nature of learning, discussed previously, leads to interventions that focus on the imperative to ‘redesign’ education systems “by introducing more flexibility in learning trajectories, new assessment and credentialing arrangements, and by ‘tearing down barriers between the worlds of working and learning’ (OECD 2021, 10). With this in mind some institutions focus on creating new systems that are intended to ‘solve the problems’ or ‘limitations’ that have been identified with the Qualification Framework. For example, Unesco highlights areas that they believe should receive more attention, such as micro- and ‘digital’ credentials:

The education and training landscape is changing, and one specific factor is the emergence of alternative credentials, not offered by the formal TVET providers, but by other organizations, often linked to the tech sector. These digital credentials are part of a wider development towards more modular, flexible, and small-scale training linked to some form of recognised credentials. Micro-credentials put a new perspective on how to deal with qualification frameworks and how to integrate them in skills development systems in a useful manner. (UNESCO 2021a, 41)

Finally, one respondent described the support that they offer in the development of frameworks, focuses on supporting labour mobility across African countries. This work emphasizes the need for alignment between national qualification frameworks and regional frameworks as well as on systems to enable the recognition of qualifications and skills.

We also found that there are a set of interventions that focus on **awareness and policy dialogue** for peer learning and the exchange of experiences and insights. A key informant suggested that there is a need to support communication and awareness activities focusing on what fails VET and what kinds of opportunities are available post-VET. As an example of this kind of work, UNESCO established an Inter-Agency Group on Technical and

Vocational Education and Training (IAG-TVET), which promotes the exchange of views and the sharing of knowledge, and ensures the coordination of activities of its members involved in policy advice, programme implementation and research.

Finally, many of the interventions adopt a deliberate set of interventions to encourage inclusivity. This generally includes a strong focus on gender with other programmes targeting particular vulnerable groups, whether people with disabilities, migrants, et cetera. For example, the evaluation document developed by UNESCO makes the assumption about the role of VET in addressing inclusivity indicating that VET can support countries in the challenges that they face through ‘Making TVET less gender-biased, this will affect the wider gender inequalities and stereotypes’. A key informant observed that in the design of their interventions to provide technical and vocational skills they integrate a social inclusion agenda. This places emphasis on the inclusion of vulnerable groups and address issues relating to labour migration, refugees, persons with disability, gender equality.

Challenges shaping interventions

There is clearly a tension between ambitions and actual implementation. The research surfaced two key factors that seem to lead to slippage from a focus on the key problem to rather narrow implementation of interventions. The first factor is the challenge of implementing integrated strategies, and the second factor is the challenge of measurement of achievement. We consider a few aspects of each below.

Integrated implementation

As discussed in the literature review, for many decades there has been a strong sense in the ‘development community’ that support to education and training must consider the whole system and be located within broader economic development strategies. This suggests two different notions of integration which are explored in various strategic documents and reviews. The first is the extent to which there is an integrated sense of the whole education and training system, and the place of the specific VET interventions within this bigger picture. The second is the extent to which VET interventions are located in economic development strategies.

We found strong assertions that **integration within the education and training system** is important. For example, UNESCO (2019) states that the focus is on the education system as a whole, and at system-wide capacity development. At the level of documentation, there are grand ambitions, which perhaps take insufficient cognizance of the realities of actual institutions and institutional capacity:

The new TVET Strategy could apply a lifelong learning perspective as a transformative, future-oriented, principle to TVET and education as a whole, stimulating flexible, modularized, personalized approaches based on quality assurance and recognition or prior learning. (UNESCO 2021a, 8)

The imperative for integrated interventions is expanded upon in the 2019 OECD Skills Strategy, in the context of arguments about the importance of developing relevant life skills over the life of the individual and the need to create the spaces for individuals to learn throughout their life in both formal settings such as schools and higher education, as well as non-formally and informally whether in the home, the community or in workplaces.

We found some evidence of complementarities across different parts of institutions⁶ but respondents highlight the difficulties in this regard:

In the education sector guide we have a two-pronged strategy. We have to fix the basics, they are not great everywhere. We have many students in school, but an 8th grader may be at the level of a 6th grader. But we can't forever do TVET teacher training. We have to do some interventions to leapfrog. We have a strategy in thought. But how to operationalize it is more difficult. The transformational strategies are riskier because they are not always thought out, in terms of transformative eco-system learning. Countries and even us we are risk averse. So there is tendency to stick to smaller pilots and see how they go. We don't see too much in the systematic.

We also found that in practice most agencies have separate theories of general education and VET, and all key informants described this as a challenge; in the words of a key informant, 'We don't have much cross pollination across our investment.'

In terms of the integration of education, work, and the economy, we found a limited number of examples where development partners point to a combination of strategies and interventions. Examples are DFID's Economic Development Strategy (2017) and new Education Policy (2018), which highlight the urgent need to create more, higher-quality jobs that are more productive, alongside higher-level skills. In another example, a key informant spoke about the strategy of achieving workforce competitiveness by addressing skills mismatches and promoting private sector initiatives to develop value chains and encourage labor-intensive manufacturing, especially in areas such as agri-business and agro-processing. They elaborated:

The most successful ToCs at country level is when we design interventions that touch on the three pillars together. You can add social protection on top. If you work on skills, enterprises, business development, youth employment, that's a very nice combination in terms of potential impact.

Similarly, the 2019 OECD Skills Strategy (2019, 4) states that to use skills effectively in work and society:

Developing a strong and broad set of skills is just the first step. To ensure that countries and people gain the full economic and social value from investments in developing skills, people also need opportunities, encouragement and incentives to use their skills fully and effectively at work and in society.

Elsewhere, the OECD presents a more detailed analysis of how a range of different social, economic, and cultural factors shape the nature of learning focusing on the role of informal learning and on the importance of the quality of the workplace in learning and skills development.

⁶ For example, SECO's documents state that they promote the incorporation of market-oriented expertise in higher vocational training (post-secondary and tertiary levels), which complements the work of the Swiss Agency for Development and Cooperation (SDC), which focuses on primary education as well as vocational training up to secondary level II.

Some observe that while integration is important, there are contexts where it makes sense to focus ‘purely on skills interventions’. But in general interventions are seen as stronger if they are integrated:

If you manage to bring together all the relevant stakeholders that can make the development agenda happen. It’s a way of putting together government, employers, different ministries perhaps ministries of trade, planning, finance. So the more you encompass and contextualize skills and TVET within the country development agenda the better. To stimulate employment, we work on employment policies we also work on public employment programmes, employment intensive investments, and employment services. All these areas belong to the employment promotion agenda ... we also work on labour market information systems ... Under enterprise it is not only productivity we do a lot of work on SMMEs development, formalization of the informal economy, support to micro enterprises.

A key informant one spoke about the complexity of establishing new institutions intended to enhance the skills system, such as the sector skills councils that ‘has not been very successful in a lot of countries.’ Another key informant similarly said:

We tried them, they just didn’t have the representation. The idea is great but the councils got hijacked. They became a money pit, so much money went into them they should have been voluntary. There were some groups that felt they were not represented, it was the representation that was the real issue.

What emerges strongly is that integration is easier to state as an imperative rather than implementing in practice. Respondents who are supporting practical interventions explained that their system interventions revolve around those that will create institutional change but acknowledge that this is very difficult:

The harder project is focusing on systems. What we try to do is a mix of both. Usually, we would have a system level component about better public private engagement, certification, the qualifications framework, et cetera. Then other projects will focus on, for example, five institutions we will work with to strengthen XYZ programme. We find that 90% of effort governments put is on institutions, 10% on systems. We would like it the other way—once you change the system, for example, if you change how you hire people, incentives for instructors. And usually, these system level stuff doesn’t cost a lot of money, but governments put money on the institutions themselves, less on the system reforms. We are trying to change some of the financing models to try to address that. Results based financing where we can pay for policy actions which can be costed based on effort that it takes.

Other respondents highlighted why this is so difficult:

In some countries you need a few lead employers. So we are looking at what exists to bring those leading employers on board. It’s less formal, the [organization] likes to have very formal very institutionalized things, but I don’t think I have seen it working well.

While there are strongly expressed intentions about integrating skills, work, and economic development, most respondents recognize this point made by the OECD in the foreword to their Skills Strategy:

Implementing skills reforms effectively is a complex task, since skills policy is located at the intersection of education, labour market, industrial and other policy domains. This implies the need to coordinate and collaborate with a wide range of stakeholders, including ministries, officials at all levels of government, students, teachers, workers, employers, trade unions, and many others. Inter-sectoral reforms are often associated with very complex redistributive trade-offs as they are characterised by distribution and redistribution of resources across and between sectors as well as levels of government. Therefore, when designing and implementing skills policies, governments often face enormous political and technical challenges. (OECD 2019)

Respondents recognize that bringing these different parties together is very complex:

Now we are not just focusing on TVETs but on youth employment in a much broader sense. We don't talk about getting a job but earning opportunities. TVETs are only addressing part of the problem. You have to look at the transition. Historically donors and governments are terrible at working with industry, and they are terrible at assessing what employers are going to do. We are used to having levers in place. TVET is familiar. Private sector is difficult. When you try to bring the two together it is a bit of a nightmare. So that can be a challenge, trying to break out. People are often experts at one or the other. You need interventions that target both sides, and to be patient in bringing them together.

And in the main respondents primarily critique themselves for *not* being integrated. This is an example of a key informant describing an intervention seen as *unusual* because of its integrated approach:

We worked collectively, we looked at modeling, financial incentives like parental leave, at what point is it better to go to work, free childcare versus working, the quality of education, teacher to child ratios, at what point does education get affected. Looking at levers and tradeoffs at every level. It's very rare. We get stuck in silos. ... It's very difficult. Education and private sector development have always been very separate. Until we can combine them, we will always fall short.

In short: despite a clear sense of the core problem to be solved, and even where there are explicit assumptions about the need for integrated approaches across education and work, we find that interventions in education and training systems appear to be based on the idea that, if we fix X, then the skills deficit or mismatch will no longer be a problem. So the focus on institutional complexity within education and training appears to lead back to a simplistic analysis of both problem and solution. Further, in practice interventions that are described as looking at education in relation to the economy, such as skills anticipation, are mainly focused on effecting change within the education and training system, as opposed to changing the economy with implied needs for different types of expertise and skills.

The challenge of limited integration is also exacerbated by the ways in which government works. Respondents critique relationships with governments for lack of integration:

As a team that is coming in, we are not always talking to ministries of finance, economic planning. We are not having those conversations around what is your strategy for growth and how can skills align to support that/ we are one degree removed. ... There are multiple ministries don't want to work together, they also have their silos.

This relates to the second factor that appears to shape the nature of interventions: the ways in which governments frame priorities.

Role of governments in shaping interventions

The second factor cited as determining the selection of interventions is that in principle, donors and development agencies start from government identified priorities:

It comes a lot from the countries, this is how all the projects start from the country strategy, and the policy challenge employment and jobs, so the immediate response is TVET because then straight to the labour market. There is less appreciation on early childhood education. Some TVET projects have realized many students who transition to TVET probably have bad grades because of weak foundational skills so some integrate foundational skills as part of the TVET course to raise students' levels to compensate for the not-so-great basic education.

Similarly, a key informant argued, 'Our financing is only as good as how aligned the government is'. As another key informant explains:

... when there is a national agenda that we can push, that's the best. Other types of interventions are more difficult. You have to advocate, generate topics, see how it resonates, without pushing them. You enter more into a listening mode. Successful countries have managed to identify a competitive advantage for the country. It can be a sector to invest. We have seen research on skills for trade and economic diversification, it has unlocked in many country skills for trade and economic diversification means there is already an agenda from the country boosting some of the sectors, you are coming in with a skills agenda to boost the sector. That is an approach that works. Governments are committing resources, human and financial. It motivates and encourages further engagement and support.

In other cases, respondents observe that while there is an emphasis on the imperatives of government, there are cases in which the needs of other social partners mediates these priorities. A key informant also argued that, '... in practice it comes down to how coordinated and structured the government is'. The respondent explained that:

We did our homework to meet with private sector associations, big companies, lead industries. But it didn't really work with the TVET component so much because they weren't really interested in working with the private sector. If that relationship doesn't work it's not gonna happen.

The respondent went on to say,

... the private sector foundation was very well linked in to private sector companies. So they were very very successful. ... It was a semi-autonomous government body well aligned to the needs. So it has nothing to do with our theory of change (which is based on the government and where we are practically at that point). We did not have a drivers of growth study when we prepared that project.

Another key informant concluded that,

In Uganda where I worked the ministry was not interested in implementing short term programmes. They could not manage it with the civil service requirements. We set up a challenge fund with the private sector that could do the short-term training

with private companies that would then contract out public or private training providers. It shifted to education providers doing more short-term training.

There is clearly an ongoing tension between international agencies and organizations responding to needs identified by governments, and between governments acting because they believe it is what these agencies want or will support financially.

Interventions: factoring in relationships within and between organizations

A set of issues that in part shape the ways in which interventions are implemented relates to the internal complexity within organizations. Many of the respondents talked about a lot of internal disagreement, saying things like ‘... other colleagues would give you a different perspective’. Another key informant similarly suggests:

You will get a very different perspective [from all the players]. [Names unit] think about growth entrepreneurs. They are aligned to the education track people thinking about longer term training, really good foundational skills. [Names unit] are thinking about vulnerable youth who just need a short-term job. So both of them interact with education differently, all of these players are not on the same page in terms of an overall strategy.

Further, organizations’ work is at least partly informed by institution building strategies and approaches, with organizations explicitly arguing for them to promote themselves. As stated by the OECD, ‘In sum, it is a battle for hearts and minds: the OECD needs to position itself as an authority in this shifting landscape’ (OECD 2021, 8). Similarly, UNESCO explicitly positions itself as the leader of TVET thinking. Various international organizations use the term ‘comparative advantage’ to focus on their role in the VET space.

At other times they rather focus on complementarity with the work of other organizations, as captured by a key informant who argued that ‘the whole area of education, skills, TVET, anything we do, is to promote employability. We are trying not to overlap with what other agencies do, Unesco, Unicef.’ Similarly:

Working with others is important; it is interesting to see complementarities among agencies. But sometimes we are in competition. Sometimes it is easier to work alone. But when you have good partnerships you can advance much farther and you can achieve a lot.

They also suggested that the ability of organizations to work together was partly dependent on individuals. A key informant suggested that multilateral institutions that have more direct presence in countries are at times in conflict with those that operate more at the level of international policy directions and tools.

The tail wags the dog: Measuring achievements

The fourth and final factor that confounds the extent to which interventions are shaped by the problem to be solved pertains to the challenge of measuring change. Four main points about measuring achievements, and the ways in which these shape interventions, emerge through our findings. The first is the positioning of measurement itself as an intervention that should lead to change. The second is the complexity of short-term evaluations that are seeking to explain longer term labour market impact. The third, and related to this first point, is that there is a tendency to focus on achievement of interventions, instead of the contribution that is being made to solving the key problem. The final issue here, and again

this is related to the other points, is that measurability sells—both to national governments and to the taxpayers funding development aid or the governance structures looking to make decisions about investments. We briefly discuss these four issues below.

In relation to the first issue, weaknesses in measurement are widely acknowledged—albeit from different perspectives. Both documentation and respondents suggest a view that a stronger focusing on measuring change is critical. This leads to a focus on measurement itself as a tool for creating change. For example, the World Bank’s Human Capital Index is premised on the idea that better measurement will provide better insights, which will lead to better action through country engagement and analytical work, and which will raise awareness of the costs of inaction, and bolster demand for interventions that will build human capital. UNESCO similarly aims to action a ‘Data and knowledge lever’ to collect and analyze data on TVET programmes and their outcomes; document skilling, reskilling and upskilling programmes, and the training and work trajectories of young people around the world. They also aim to create a repository of TVET plans and strategies, including their monitoring and evaluation. The OECD also emphasises the value of measurement:

Comparative metrics used for benchmarking systems are now powerful tools for policy development and implementation. Trustworthy comparative data and indicators are rapidly becoming an important resource for governments to assess and benchmark education systems against those of other countries. The OECD has become the most prominent actor in this regard. (OECD 2021, 10)

In other words: providing comparative data is presented as an intrinsic good in building education systems (and, related to the discussion above, is also an area in which organizations can have a competitive edge over others).

The second issue is the relationship between short-term evaluations and labour market impact. We find that evaluations of skills programmes use experimental and non-experimental designs to test whether the intervention have enabled the target group to transition into the labour market and on this basis determine whether the intervention is valuable. These focus on the impact on individuals, and the extent to which the intervention makes a significant difference in enabling access to the labour market, instead of whether the environment is changing to support a more sustained impact. This approach to measuring impact was critiqued by key informants; for example, a key informant indicated that Randomized Controlled Trials have led to the notion of a ‘bad buy’ whereby interventions are stopped when short term impacts were not as envisaged, despite the complexity of challenges in local contexts. The key informant argued,

... how we measure success in five-year projects is a very tense conversation. Should we be measuring employment outcomes 6 months after graduation? Even if the outcomes are good in the short-term they might be bad in the long-term. So, there is a challenge in how we measure success. I think we are still a very mixed bag of some successful and some unsuccessful. I am not sure if we know what the factors were that made one successful or not.

Another key informant emphasized the need for time; that interventions don’t always work fast:

... time is a big factor. I see what we have achieved in [names a country].... It was a long-term investment with millions of intervention. Really the intention of

reforming entirely the skills system. The large-scale impact requires money and time. Sometimes our projects are of small scale, you just scratch the surface. Sometimes it feels like it is all about pilots. The most successful is where you stay in the country for a long period of time. This is the only way to push a significant change. ... When you talk about skills there is nothing you can achieve in a cycle of 4 to 8 years. Perhaps we should do less, bigger. Otherwise, you do a little intervention here, another one there. The best would be to say we have three major projects in the region, we are doing that for the next ten years until we see some impact.

The third issue, which is related to the previous point, is that there is a tendency to focus on achievement of interventions, instead of the contribution that is being made to solving the key problem. This is discussed by Mcgrath and Lugg (2012), who also point out that the relationship between broader policy goals and specific interventions are often not specified and very unclear. That is, many short-term impact evaluations lack meaningful measures for exploring contributions to the solution of the wider problem being resolved, and there is often little engagement with the complex ways in which changing one component of a skill formation system will have an impact on other components of it.

There are also examples of ‘quantitative targets’ which are aimed at ‘bringing change in Member States’ TVET policies and systems’ (UNESCO 2021b). From UNESCO these for example include training more than 2,700 teachers and around 5,000 TVET stakeholders (leaders, officials, and experts from the private sector) in 50 countries in the period 2015–2021. A key informant discussed the challenge of the kinds of targets that are aimed at, which are often unrealistic:

Either you have quality apprenticeships, or you are failing. The discussion was dominated by countries like Europe, NZ, USA, even the spokesperson of employers and workers were from UK and Australia. Whenever the Africa group was speaking it was often very much alone in its battles in relation to the other countries. So that is a balance that we have to learn how to anticipate.

At the best, there is an attempt to establish the success of strategies in terms of the extent that VET institutions, as well as other institutions and organizations and the regulatory environment are strengthened. There is some focus on the relationships that have been established between VET institutions and employers and whether the mechanisms for aligning support and demand are established, whether through skills anticipation or qualification frameworks. But understanding the contribution that these changes have made to reducing unemployment/ underemployment and inclusive growth remains more elusive.

In short, there is to some extent what might be termed a circular ‘theory of change’, where success is seen as successful implementation of policy interventions or creation of institutional change, without consideration of whether the intervention has resulted in any resolution of the initial identified problem. For example, one country focused intervention describes success factors in the following way:

... a functional National Qualifications Framework; all vocational qualifications supported by industry, with occupation standards and skills solutions developed by Sector Skills Councils; a quality assurance system based on self-assessment, external inspection and focusing on continuous improvement; colleges being autonomous corporate bodies with employer links; learning in real or simulated workplace

settings; unitised and credit-based vocational qualifications; and funding linked to quality and outcomes. (British Council 2015)

The fourth and final point is that measurability shapes interventions by providing visible ‘wins’, as captured by a respondent:

... I think nowadays the big question everybody is asking for the Africa region and South Asia is youth employment and jobs. That’s the angle. But the solution is very much short-term training, get people into jobs as soon as possible. It’s a little bit like an election process, country directors love short term programmes. It looks good, it’s easy, it’s good for governments too. For country directors who are supporting government political mandates it’s very good.

Another key informant suggested that this type of focus raises serious difficulties for their work:

Part of it is around the KPIs that we use and how that relates to risk appetite and political priorities. There is often a huge push: Impact. Numbers. Impact. Numbers. It’s very easy on a programme on youth employment or TVET to look at how many people have we trained. It’s far more exciting to say we trained 20 million artisans than saying we held a series of policy workshops that could lead to one reform to the system. ... and the impact rarely aligns with political cycles and what people want. That demand in terms of numbers and people trained is the easy thing to do as the donor partner. Do a site visit every once in a while. Boom: effective programme. It’s a lot harder and higher risk appetite to do systemic reform. There are so many factors outside of a donor’s control. Is this something we can tolerate or not. Would a taxpayer want their money to be spent on trying to inform one specific policy change that may never happen?

This last point—about visible ‘wins’ relates to the points raised previously, about the role of donors and development agencies versus the role of governments.

What was clear across the analysis of documents and discussion with key informants is that there is very limited insight into relationships between the myriad of interventions and the extent to which they were solving or ameliorating the assumed underpinning problems, never mind whether they were contributing to solving the core problem. While this is obviously an extremely challenging thing for individual governments or donor and development agencies to achieve, it does suggest the need for extensive research into relationships between skills and economic development and growth.

5. ANALYSIS

From the findings above, we distilled four main theories of change, with some sub-variants within the two main theories. While seldom explicitly stated, we argue that these four, with their variants, are implicit in the documentation as well as the ways in which key informants talk about their work. We did not find that they can be easily allocated to different categories of donor and development agencies.

Type 1 – a focus on building individual skills

The first Theory of Change is that building individuals' skills will enable individuals to get work or create better work. This is, essentially, interventions premised on human capital theory in its most simplistic form. At the most basic, this could be interventions such as providing bursaries that enable individuals to develop skills, which will get them jobs or enable them to get out of a poverty trap. In other words, supporting individuals to access education systems. There are very few interventions that are in fact this simplistic. While there is widespread recognition that lack of funds for fees is only part of the problem that individuals have, and that the opportunity cost of studying is also a significant challenge, most organizations see the need not just to help individuals to access educational provision, but also to change the nature of that provision.

This leads to the second Theory of Change type.

Type 2 – supporting individuals to access programmes while trying to improve institutions

Here the logic is that supporting individuals to access educational opportunities is essential to address the skills deficit that is preventing youth from access jobs or improving their livelihoods, but in addition, education institutions and systems, and in specific VET institutions, need to be strengthened and reformed to be more responsive to the needs of economies. Here interventions could include supporting individuals to access programmes while also working on curriculum reform, or changing qualifications, or improving interactions between workplaces and education institutions, or training lecturers.

In other words: the main logic is still building individuals' 'human capital', but, there is recognition that building the required expertise in individuals requires various kinds of institutional change. Many interventions are not only at the level of individual VET institutions.

This leads to the third type of Theory of Change, which focuses on system change in education and training systems and regulatory systems. Many interventions discussed above appear to be driven by this third Theory of Change.

Type 3 – system change intervention

Here the logic is on changing a range of aspects of education and training systems. The idea is that enabling young people to access learning opportunities is not enough if you don't improve the nature of the offerings. Improving the nature of the offerings requires interventions that are broader than provider capacity building. This is partly because providing institutions are located in broader systems that govern what they can and can't do, and partly because change is required that is beyond the scope and capacity of providing institutions. Here we see interventions like attempting to build skills anticipation systems, using qualifications frameworks as tools to drive employer engagement and curriculum design, and building the capacity of government and system level organizations and institutions.

Where these interventions stop, however, is in attempting to change the economy. This is even when organizations and institutions do have other interventions that are directly aimed at changing the economy—these are seldom integrated with educational interventions, as would be the case in our last type of Theory of Change.

Type 4 – Integrated interventions into supply and demand

The fourth type of Theory of Change is one that we found very few examples of: economic development strategies that contain skills development interventions as part of growing demand for different skills. One potential example was found in work in local economic development, where there is some focus on building local ecosystems that encourage the creation of economic opportunities at the same time as supporting people to develop the expertise and skills to take advantage of these opportunities.

Thinking about VET in this way is more in line with the literature on skill formation systems. Instead of interventions which look at individuals, or at institutions as individuals to be incentivised, or at education and training systems as systems that can be changed on their own, it sees the education system as part of the society and the economy. Instead of a causal system in which x causes y, it prevents a complex system in which changing any one part will have an effect on all the others.

Reflecting on the findings

We did this research to understand the theories of change in the VET space. We explored how these theories of change locate VET within the wider education and training system and in context of the systems of education and work as well as within economic development. We found that in some cases organizations have multiple theories of change—separating different elements of the education and training system as well as the education and training from interventions in the economy. In other cases, there are implicit theories of change, but partners focus more on the achievements of specific targets that relate to discreet interventions.

What emerged strongly is that there has been a substantial shift with respect to the primary problem that organizations are seeking to address with education and training interventions, from a broader focus on empowerment and alleviation of poverty towards a focus on addressing youth unemployment and under-employment. An emphasis on VET then rests on the assumption that while education and training is generally important, it is VET that is closest to the labour market and that can more immediately deliver the requisite skills, which will then address the immediate skills needs of industry, contributing to both individual employment outcomes and economic development. This idea of VET leading to employment is frequently stated even when the same document or the same respondent is quick to point out that VET does not currently do so. So a key tension is that while VET is seen as an immediate solution, it is also VET that is regarded as the ‘weak link’ in the education and training system. Thus, while VET is seen as an immediate solution to enabling access to the economy there is also an acknowledgment that current VET provision will not enable this alignment—there is no quick fix.

Beyond this are many other tensions and contradictions in the assumptions about which problems VET can assist with, and the ways in which VET will assist to solve for this problem. For example, a key tension implicit in these assumptions is between solving ‘skills mismatches’ and facilitating and supporting educational expansion for mass employment. The first assumption identifies a need for ensuring that a relatively small number of individuals attain the higher levels of expertise that are important for industrialization. The second assumption is focused on the goals of enabling large numbers of young people who participate in VET programmes to access skills at the lower levels to encourage inclusivity,

through expanding education to large numbers of secondary level learners, making secondary education more ‘relevant’ in relation to possible economic opportunities. This despite little evidence that VET is able to contribute to meaningful inclusivity. These two sets of assumptions cannot be addressed by the same interventions.

In addition, while we found extensive commentary on the need to ‘fix’ VET to address the problem, there is very limited comment on the assumptions that are being made about the ways in which the labour market needs to change to allow for the quality of the jobs that VET graduates access to be improved. Nor is the analysis of how to ‘fix’ VET integrated into a set of assumptions about how the economy itself must be transformed to allow formal employment to be accelerated and SMMEs to succeed. Instead, the focus of VET interventions seems to lie almost entirely on actions to enhance the quality of the education and training system with limited focus on ways to address the structural challenges contributing to unemployment.

An emphasis on delivering interventions that can be measured further limits the extent that many VET interventions focus on the identified problem and therefore the object of policy in LMICs. The research literature makes clear that skills are produced through a set of social relationships and institutions and VET systems are a small component of this in most countries. Considering the literature on skill formation systems in wealthy countries, one of the things that is assumed is that the nature of the formal sector drives what skills are produced. It does it in a way that the providers are embedded in the economy where VET is strong. The informal sector can never operate in the same way and this raises questions about how the nature of informality shapes skill formation. Yet, many strategies in LMICs focus only on VET in isolation from the other elements integral to what a skill formation systems should do.

We suggest that in the main, VET interventions are not sufficiently integrated into economic development strategies. If fragmented interventions continue, little will be achieved beyond assisting very small numbers of individuals to access jobs that potentially others would have accessed—changing the positions in the job queue. Rather, economic development strategies need to be foregrounded, as well as issues such as working conditions and the ways in which different occupational levels are structured in workplaces. This approach would recognize that, for example, people make choices based on the nature of the work, levels of certainty—pensions, stable employment. We need to consider what shapes decisions in informal work and survivalist activities—it is seldom a first choice place to work. There is a range of ways in which the existence of informality could shape educational preparation for work—the challenge of needing higher skills for informality, the challenge of graduates wanting formal sector employment. These are not generally taken seriously in conceptualizing interventions—except for skills for basic livelihoods.

What is evident is that there are factors that further confound the implementation of interventions to address the problem. These include the ways in which institutions that are active in the development space, as well as the governments being assisted, are structured and the extent to which this encourages fragmentation. Further, our findings highlight the complexity of implementing integrated interventions. Interventions also appear to insufficiently consider how institutions can change. We found that many of the policy-facing organizations are aspirational about what should be done and offer guidance in their documents as to how to integrate interventions. But organizations that are more involved in

supporting implementation and doing the work in countries say that from their experience, this level of integration is hard.

Magical thinking can also pervade the approach to measuring change. The difficulties with understanding the contribution that interventions make to the actual problem may explain why institutions instead measure whether policies, frameworks and guidelines are adopted, whether structures established, or whether labour market information systems are adopted. However, this frequently results in a prioritization of interventions that can be measured rather than ones that reflect the complexity of the skills formation system.

There is clearly a recognition in policies related to VET in both wealthy countries and LMICs that the perceived value of university qualifications is leading to expenditure for states and individuals that is wasteful, and which might in fact be counter-productive in terms of the skills and expertise needed by employers and societies. There is also a strong concern internationally that university educated youth remain unemployed—and are increasingly some of the largest proportions of unemployed people in poor countries. This leads to policies that attempt to stop the expansion of academic higher education, or that attempt to change qualification systems in the hope that this will change how employers and students understand signals from education and training systems. This set of dynamics plays out differently in LMICs, and the broader set of issues clearly requires more research.

In conclusion: there is commitment amongst donor and development agencies as well as governments to support efforts to reduce youth unemployment, and yet the problem remains intractable. This leaves some tough questions for organizations involved in supporting development interventions:

- How can institutions find ways of developing more consistent Theories of Change that integrate work across programmes, units, departments, and other organizations?
- How can institutions confront internal tensions in their theories of change?
- What kinds of VET interventions would be required for the economies that actually exist, as opposed to the economies that are envisaged?
- If it is realistic for VET interventions to continue to relate to the formal sector, and not the bulk of the economy, what kinds of expertise and knowledge, as well as other forms of assistance, should be given to people in the informal sector?
- Is there an extent to which the focus on interventions like ‘fixing’ VET in the name of youth employment some degree of smoke and mirrors to hide the lack of possibility of real economic change, which would require changing international economic systems?
- What does all of this mean for what development partners could do? What is the most useful role that they can play? What would a ‘relational approach’, that considers a large number of potential policy levers, look like in different contexts?

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REFERENCES

- Adely, Fida Issa J., Ankushi Mitra, Menatalla Mohamed, and Adam Shaham. 2021. 'Poor Education, Unemployment and the Promise of Skills: The Hegemony of the "Skills Mismatch" Discourse'. *International Journal of Educational Development* 82 (April): 102381. <https://doi.org/10.1016/j.ijedudev.2021.102381>.
- African Development Bank. 2014. 'The Bank's Human Capital Strategy for Africa (2014-2018)'. African Development Bank Group's Human Development Department.
- Allais, Stephanie. 2020. 'Skills for Industrialization in Sub-Saharan African Countries: Why Is Systemic Reform of Technical and Vocational Systems so Persistently Unsuccessful?' *Journal of Vocational Education and Training*, 455–72. <https://doi.org/10.1080/13636820.2020.1782455>.
- Allais, Stephanie, Victor Kgalema, Carmel Marock, Volker Schöer, Tolika Sibiya, and Nduvho Ramulongo. 2020. 'TVET, Skills, and Company Transformation and Growth Insights from a Company Survey in Three Manufacturing Sectors in South Africa'. Skills for Industry Working Paper No R2. Johannesburg and Zurich: The Centre for Researching Education and Labour and Zurich University of Teacher Education.
- Ashton, David, Francis Green, Johnny Sung, and Donna James. 2002. 'The Evolution of Education and Training Strategies in Singapore, Taiwan and S. Korea: A Development Model of Skill Formation'. *Journal of Education and Work* 15 (1): 5–30.
- Bashir, Sajitha, Marlaine Lockheed, Elizabeth Ninan, and Jee-Peng Tan. 2018. *Facing Forward. Schooling for Learning in Africa*. Africa Development Series. Washington D.C.: The World Bank.
- Becker, Gary. 1962. 'Investment in Human Capital: A Theoretical Analysis'. *Journal of Political Economy* 70 (5, Part 2): 9–49. <https://doi.org/10.1086/258724>.
- . 1976. *The Economic Approach to Human Behavior*. Chicago: University of Chicago Press.
- . 1993. *Human Capital: A Theoretical and Empirical Analysis, With Special Reference to Education*. Chicago: Chicago University Press.
- Bills, David B. 2004. *The Sociology of Education and Work*. Oxford: Blackwell Publishing.
- Bogliaccini, Juan A., and Aldo Madariaga. 2020. 'Varieties of Skills Profiles in Latin America: A Reassessment of the Hierarchical Model of Capitalism'. *Journal of Latin American Studies* 52 (3): 601–31. <https://doi.org/10.1017/S0022216X20000322>.
- Bosch, Gerhard. 2017. 'Different National Skill Systems'. In *The Oxford Handbook of Skills and Training*, edited by Chris Warhurst, Ken Mayhew, David Finegold, and John Buchanan, 424–43. Oxford: Oxford University Press.
- British Council. 2015. 'Partners for Change: UK Sector Skills Councils and World Class Skills'. Macedonian Qualifications Framework Conference. London: British Council. https://www.britishcouncil.mk/sites/default/files/uk_sector_skills_councils.pdf.
- Brown, Phillip, Hugh Lauder, and Sin Yi Cheung. 2020. *The Death of Human Capital: Its Failed Promise and How to Renew It*. New York: Oxford University Press.
- Brown, Phillip, Hugh Lauder, and David Ashton. 2011. *The Global Auction. The Broken Promises of Education, Jobs, and Incomes*. Oxford: Oxford University Press.
- Busemeyer, Marius R., and Christine Trampusch. 2012a. 'The Comparative Political Economy of Collective Skill Formation'. In *The Political Economy of Collective Skill*

- Formation*, edited by Marius R. Busemeyer and Christine Trampusch, 3–38. Oxford and New York: Oxford University Press.
- . 2012b. *The Political Economy of Collective Skill Formation*. Oxford and New York: Oxford University Press.
- Collini, Stefan. 2012. *What Are Universities For?* London: Penguin.
- Collins, Randall. 1979. *The Credential Society*. New York: Academic Press.
- . 2013. ‘The End of Middle-Class Work: No More Escapes’. In *Does Capitalism Have a Future?*, edited by Immanuel Wallerstein, Randall Collins, Michael Mann, Georgi Derluguian, and Craig Calhoun, 37–70. Oxford and New York: Oxford University Press.
- Dougherty, Christopher. 1989. ‘Cost-Effectiveness of National Training Systems in Developing Countries: Issues and Experience.’ Policy Research Working Paper Series No 171. Washington D.C.: The World Bank.
- Elfert, Maren. 2021. ‘The Power Struggle over Education in Developing Countries: The Case of the UNESCO-World Bank Co-Operative Program, 1964-1989’. *International Journal of Educational Development* 81 (March): 102336.
<https://doi.org/10.1016/j.ijedudev.2020.102336>.
- Forster, Phillip. 1965. ‘The Vocational School Fallacy in Development Planning’. In *Education and Economic Development*, edited by Arnold A Anderson and Mary Jean Bowman. Chicago: Aldine.
- Hall, Peter A., and David Soskice, eds. 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Hanushek, Eric A, and Dennis D Kimko. 2000. ‘Schooling, Labor-Force Quality, and the Growth of Nations’. *The American Economic Review* 90 (5): 1184–1208.
- Hanushek, Eric A, and Ludger Woessmann. 2008. ‘The Role of Cognitive Skills in Economic Development’. *Journal of Economic Literature* 46 (3): 607–68.
- Iverson, Torben, and John D. Stephens. 2008. ‘Partisan Politics, the Welfare State, and Three Worlds of Human Capital Formation’. *Comparative Political Studies* 45 (4/5): 600–637.
- King, Kenneth. 1991. *Aid and Education in the Developing World: The Role of the Donor Agencies in Educational Analysis*. Harlow: Longman. Harlow: Longman.
- Lauder, Hugh, Phillip Brown, and Gerbrand Tholen. 2012. ‘The Global Auction Model, Skill Bias Theory and Graduate Incomes. Reflections on Methodology.’ In *Educating for the Knowledge Economy? Critical Perspectives*, edited by Hugh Lauder, Michael Young, Harry Daniels, Maria Balarin, and John Lowe, 43–65. Abingdon and New York: Routledge.
- Livingstone, D.W., and David Guile. 2012. *The Knowledge Economy and Lifelong Learning. A Critical Reader*. The Knowledge Economy and Education. Rotterdam: Sense.
- Marope, PTM, Borhene Chakroun, and KP Holmes. 2015. *Unleashing the Potential: Transforming Technical and Vocational Education and Training*. Paris: United Nations Educational, Scientific and Cultural Organization.
- Martin, Cathie Jo. 2017. ‘Skill Builders and the Evolution of National Vocational Training Systems’. In *The Oxford Handbook of Skills and Training*, edited by Chris Warhurst, Ken Mayhew, David Finegold, and John Buchanan, 36–53. Oxford: Oxford University Press.
- Mastercard Foundation. 2020. ‘Secondary Education in Africa’. Toronto, Ontario Canada: Mastercard Foundation. <https://doi.org/10.15868/socialsector.35972>.

- Maurer, Markus. 2012. 'Structural Elaboration of Technical and Vocational Education and Training Systems in Developing Countries: The Cases of Sri Lanka and Bangladesh'. *Comparative Education* 48 (4): 487–503.
- McGrath, Simon, and Rosemary Lugg. 2012. 'Knowing and Doing Vocational Education and Training Reform: Evidence, Learning and the Policy Process'. *International Journal of Educational Development* 32 (5): 696–708.
<https://doi.org/10.1016/j.ijedudev.2012.02.004>.
- Mercer, Malcolm. 2014. 'Donor Policies, Practices and Investment Priorities in Support of Education, and Post-2015 Prospects: A Review'. *International Journal of Educational Development* 39 (November): 23–31. <https://doi.org/10.1016/j.ijedudev.2014.06.001>.
- Middleton, John. 1988. 'Changing Patterns in World Bank Investments in Vocational Education and Training: Implications for Secondary Vocational Schools'. *International Journal for Educational Development* 8 (3): 213–25.
- Middleton, John, Adrian Ziderman, and Arvil Von Adams. 1996. 'Skills Training for Productivity: Strategies for Improved Efficiency in Developing Countries'. Report Number 12290. Washington D.C.: The World Bank.
- Mincer, Jacob. 1958. 'Investment in Human Capital and Personal Income Distribution'. *Journal of Political Economy* 66 (4): 281–302.
- Newfield, Christopher. 2010. 'The Structure and Silence of the Cognitariat'. *Edu-Factory Web Journal* January 2010 (0): 10–26.
- Nherera, Charles M. 2000. 'Globalisation, Qualifications and Livelihoods: The Case of Zimbabwe'. *Assessment in Education: Principles, Policy, and Practice* 7 (3).
- OECD. 2019. 'OECD Skills Strategy 2019. Skills to Shape a Better Future.' Paris: Organization for Economic Co-operation and Development.
- . 2021. 'Building the Future of Education'. Paris: Organization for Economic Co-operation and Development.
- Oliver, Damien, Serena Yu, and John Buchanan. 2019. 'Political Economy of Vocational Education and Training'. In *The Wiley Handbook of Vocational Education and Training*, edited by David Guile and Lorna Unwin, 115–36. Hoboken, NJ: Wiley Blackwell.
- Psacharopoulos, George. 1991. 'From Manpower Planning to Labour Market Analysis'. *International Labour Review* 130 (4): 459–70.
- . 1994. 'Returns to Investment in Education - a Global Update' World Development'. *World Development Update* 22 (9): 1325–43.
- Psacharopoulos, George, and Harry A. Patrinos. 2004. 'Returns to Investment in Education: A Further Update'. *Education Economics* 12 (2): 111–34.
- Quintini, Glenda, and Sébastien Martin. 2014. 'Same Same but Different: School-to-Work Transitions in Emerging and Advanced Economies'. OECD Social, Employment and Migration Working Papers No. 154. Paris: Organization for Economic Co-operation and Development.
- Reinert, Erik S. 2006. 'Development and Social Goals: Balancing Aid and Development to Prevent "Welfare Colonialism"'. DESA Working Paper No 14. New York: Economic and Social Affairs, UN_DESA.
- Sancak, Merve. 2022. *Global Production, National Institutions, and Skill Formation: The Political Economy of Training and Employment in Auto Parts Suppliers from Mexico and Turkey*. First edition. Oxford, United Kingdom ; New York, NY: Oxford University Press.
- Schultz, Theodore. 1961. 'Investment in Human Capital'. *The American Economic Review* LI (1): 1–17.

- Spence, M. 1973. 'Job Market Signaling'. *Quarterly Journal of Economics* 87: 355–74.
- Thelen, Kathleen. 2004. *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan*. Cambridge: Cambridge University Press.
- UNESCO. 2016. 'Strategy for Technical and Vocational Education and Training (TVET) (2016-2021)'. Paris: United Nations Educational, Scientific and Cultural Organization.
- . 2019. 'The CapED Programme Annual Report 2018'. Paris: United Nations Educational, Scientific and Cultural Organization.
- . 2021a. 'Final Evaluation of UNESCO's Technical and Vocational Education and Training Strategy'. Paris: United Nations Educational, Scientific and Cultural Organization.
- . 2021b. 'UNESCO Strategy for TVET (2022-2029). Transforming TVET for Successful and Just Transitions. Discussion Document.' Paris: United Nations Educational, Scientific and Cultural Organization.
- Valiente, Oscar. 2014. 'The OECD Skills Strategy and the Education Agenda for Development'. *International Journal of Educational Development* 39 (November): 40–48. <https://doi.org/10.1016/j.ijedudev.2014.08.008>.