

Chapter 4

Sustaining the Employability of Working-Age Adults: A Singapore Case Study



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Abstract There is a growing emphasis, globally, on aligning tertiary education with graduate employability. Much of this effort is directed towards young people's transiting from schooling to paid work via university and vocational education programmes. Yet, less attention is paid to sustaining working-age adults' employability through educational provisions. As employability embraces sustaining employment and seeking advancement across working life, it comprises an important educational provision. Drawing on findings of an investigation of Singaporean tertiary education institutions' continuing education and training (CET) provisions, this chapter proposes how they might be effectively designed, developed and enacted. Adopting a sociocultural perspective, it comprised concurrent phases of interviews with CET graduates ($n = 180$) and employers ($n = 40$), a survey of working-age Singaporeans ($n = 860$) and focus groups with CET educators and administrators. From the findings, sets of principles for the design and enactment of CET programmes focused on accessibility and effectiveness are advanced. In conclusion, although informed by Singaporean tertiary education, the findings reported here have broader applicability in promoting their employability and implications for working-age adults' sense of self.

Education as a Social Leveller

Education has always been viewed as an effective catalyst for social mobility by equalising opportunities and enhancing human capabilities. This notion of education as the great social leveller has been indelibly imprinted in the collective consciousness of many countries across the world. However, this emancipatory conception of education as a panacea for eradicating inequality and actualising social mobility can

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be oversimplified, raising unrealistic expectations. This slippage occurs in that this is an ideology that is inextricably embedded in a neoliberal project of individualist policies of competition, effort, hard work and the alleged benefits that supposedly flow from aspiring towards a “more meritocratic” society (Hoskins & Barker, 2014). Increasingly, however, this assumption is being questioned and challenged. There is growing concern that education, in its current form, is unintentionally cultivating social stratification and inequity. The argument is that it provides a distinct and unfair advantage to those privileged to gain access to it. There are important messages here for higher education, especially in continuous education and training (CET), on how we need to rethink the individualist policy rhetoric and remodel education so that it can provide opportunities for as wide a population base as possible. Yet, to do so requires accounting for the intentionalities, capacities and interests of individuals (Malle et al., 2001), and the kinds of experiences that are provided for them and their prospects for achieving those outcomes through individual’s engagement with them (Cole & Engestrom, 1997). This is the contribution that sociocultural theory makes in drawing our attention to the duality between historically and culturally derived social practices that comprise the experiences afforded individuals (Scribner, 1985), on the one hand, and how individuals engage with them, on the other. That is they are co-participatory (Billett, 2001). However, how these dualities are derived and enacted are shaped relationally by individuals and what they are afforded (Billett, 2006). It is this explanatory approach that is exercised here to illuminate the processes of engagement and change (i.e., learning) arising through engagement in CET. Globally, there is a growing concern about providing effective CET programmes to meet the needs of working-age adults. This concern is often directed to how these adults can (a) remain employable across their lengthening working lives, (b) contribute to their workplaces’ continuity and development and (c) collectively address governmental goals of supporting a robust economic base and providing quality services (Organisation for Economic Co-operation and Development [OECD], 2006, 2010). This need for effective CET provisions to sustain working adults’ employability has perhaps never been greater than during the era of the COVID-19 pandemic. As social distancing measures continue and with teaching and learning moving online, adult learners who lack ready access to a stable Internet connection and/or do not possess the digital literacy to engage effectively with the online lessons, face significant barriers to accessing and engaging in quality CET. While these challenges are not insurmountable, leading surveys such as the OECD Programme for the International Assessment of Adult Competencies (PIAAC; OECD, 2019) have demonstrated that adults with lower levels of education, lower paying jobs and lack of or insufficient employment are least likely to participate in adult education. The ongoing impact of the COVID-19 global pandemic will likely exacerbate and compound the learning barriers for these adult learners.

While many adults continue to work, the International Labour Organization estimates that around 80% of the global workforce are affected by workplace closures and that labour markets will likely suffer in both developed and developing countries (International Labour Organization, 2020). In response, many countries around the world have adopted counter-cyclical fiscal policies to fund stimulus packages

to support the unemployed and to increase expenditure in key areas such as health care, education and training (OECD, 2020). Each country's economic recovery is highly dependent on how well its workforce is prepared to meet the evolving needs of the changing labour market (Dikhtyar et al., 2021) and individuals' engagement with CET has shown to be strongly counter-cyclical (Dellas & Sakellaris, 2003). As highlighted by Dikhtyar et al. (2021) in their study on adult education and the impacts of the COVID-19 pandemic across ten developed countries (i.e., Sweden, Norway, the Netherlands, Germany, Italy, the UK, Australia, Singapore, Canada and the USA), there are increased investments in the upskilling, reskilling, or CET in the countries they studied that aim to expedite their economic recovery while concurrently improving re-employment prospects for middle- and low-skilled workers. In this regard, some governments have increased funding for CET, while others have provided financial support to employers for sending their employees for CET. In the case of Singapore, the government has adopted both approaches.

The focus in this chapter is on how CET provisions might be best designed, developed and enacted to be accessible and effective for working-age Singaporeans in the pandemic era. While the investigation reported and discussed here is based in Singapore, its findings may resonate far more widely as the issues discussed here are of relevance not only within Singapore, but also beyond. Quality CET, engagement of adult learners and employability sustenance are concerned in both developing and developed countries alike, increasingly so as the impact of COVID-19 intensifies globally and as many countries struggle to deal with the economic fallout of COVID-19.

To set the context, the chapter commences with discussing CET in Singapore, followed by a description of the investigation undertaken and its findings. In all, it proposes that individual subjectivities, societal needs and expectations converge and are contested through CET. It is also an educational provision in which individuals have differing viewpoints and contradicting opinions as members of a community in co-constructing their CET experience. As this educational provision is not compulsory, these matters are central to how adults elect to participate and engage with it. Realising its key goals requires being broadly inclusive and meeting the needs of those for whom they are being designed, enacting them in ways that make them accessible both in physical and educational terms, and offering experiences to achieve the outcomes that these individuals desire. What is proposed here is that provisions of CET need to address dual goals: developing the employability of students and graduates but doing so in ways and with outcomes that sustain and support working-age adults' sense of self. In this way, the findings remind and rehearse Rogerian concerns about adults as learners from an earlier era.

CET in Singapore

In a period described by some as the knowledge society (Leadbeater, 1999) and/or the informational society (Castells, 2000), modern society is characterised not only by the

emergence of a knowledge-based economy, but also by a concomitant rise in social inequalities (Leadbeater, 1999). These inequalities are often perpetuated through educational institutions; the importance of the schools as arteries in the society's knowledge circulatory system is encapsulated in Singh's (2002) observation:

Schooling institutions perform an increasingly significant role in the differential distribution of knowledge and information resources during these times. In addition, alternative, informal and virtual learning communities play a crucial role in the (re)production of the intellectual, moral and social human resources for the knowledge/informational society. (p. 572)

This is the case too with CET, where certain groups in society are marginalised by virtue of their socioeconomic status, family backgrounds, language differences, and age and/or educational standards, despite the efforts of the government in advocating lifelong learning (Fiel, 2020; Hoskins & Barker, 2014). This situation is particularly predominant in Singapore where a recent report on Singapore's results in the survey of adult skills—a product of the OECD PIAAC—indicated that older Singaporean adults, particularly those in the 55–65 age range, attained some of the lowest scores in literacy and numeracy among all participating countries/economies. The findings highlighted that the gap between the most and least proficient adults in Singapore is wide. Indeed, Singapore stands out as the country in which variability in literacy is greatest, at 77 score points, compared to the OECD average of 62 score points. While the report attributes the low proficiency among Singapore's older populations to the effects of age, educational attainment and language barriers, it underscored the inequality in access to education caused by differentiated access to technology and resources.

The Singapore government has long been prescient in recognising the importance of developing further working-age adults' occupational capacities. The Skills Development Fund (SDF) was established in October 1979 through the enactment of the Skills Development Levy Act (Government of Singapore, 1979). The SDF is supported through contributions by all employers in Singapore. Correspondingly, the government contributes to the SDF an amount equal to the levies payable by the employers. The fund is used to finance the “promotion, development and upgrading of skills and expertise of persons preparing to join the workforce, persons in the workforce and persons rejoining the workforce”, “the retraining of retrenched persons” and upgrading business operations and technology (Government of Singapore, 1979). This initiative was supplemented by the establishment of the Lifelong Endowment Fund Act in 2001 to finance Singaporeans in their pursuit of CET to enhance their continuing employability (Government of Singapore, 2001). These earlier initiatives emphasise a key policy focus for Singapore: the central role played in its economy by its workforce and the need for that workforce to be currently competent and able to respond to the constant changes in global economic circumstances and to support the ongoing viability of Singapore.

More recently, SkillsFuture Singapore (SSG) was formed as a statutory board under the Ministry of Education. It drives and coordinates the implementation of the national SkillsFuture movement that seeks to strengthen the ecosystem of quality

education and training in Singapore and to provide Singaporeans with the opportunities to develop their fullest potential throughout life, regardless of their starting points. As encapsulated by their own description (SkillsFuture Singapore and Workforce Singapore, 2020):

SSG plays a key role in the quality assurance for private education institutions and adult training centres. Together with educational institutions and training partners, SSG ensures that students and working adults have access to high-quality, industry-relevant training throughout life. SSG also brings together synergies in CET and pre-employment training, so skills requirements will continue to meet the demands of different sectors of the economy.

Following the advent of the SkillsFuture policies and its accompanying emphases on the post-secondary education institutions (PSEIs) as providers of CET, there is an increased interest in the transformation and professionalisation of those who organise programmes in and enact CET (Institute of Adult Learning, 2017a, 2017b). Specifically, there is increased attention on creating the opportunities for adult learners to upskill and reskill through CET, including learning through their work activities and in their workplaces. More than in other sectors, the efficacy of CET educators and providers, programmes and approaches are contingent on their links to workplaces and the CET students who work in them. To better understand what is required to be learnt through CET programmes and how best this knowledge can be learnt, it is necessary to identify and capture the requirements of the CET learners, as their perspectives will be central to the provisioning of effective CET and learners' engagement in them.

Context of Study

In this chapter, we draw on the empirical evidence of Phases 1 and 2 of a research study funded by SkillsFuture Singapore, from 2018 to 2021 (Billett et al., 2022; Leow et al., 2022). The study adopted a mixed methods approach comprising a combination of qualitative and quantitative procedures for the gathering and analysis of data. The research was structured in three phases. Phase 1 comprised gathering and analysing interview data from 180 graduates who had recently completed CET programmes, mostly offered by the polytechnics, and 40 employers of different sized companies in Singapore. In Phase 2, survey data were collected and analysed from 860 working-age Singaporeans who may or may not have participated in a CET programme. In addition, a supplementary survey was administered to ascertain changes in views about the accessibility and utility of online education provisions post a 9-month lockdown (Billett et al., 2022).

The key question guiding this research is: *What are the kinds of capacities and institutional practices required for CET educators to provide accessible and effective CET provisions for Singapore's adult working population and how might these capacities be developed?*

This key question is informed by four sub-questions:

1. What are the learning needs and requirements of adults in Singapore to remain employable across lengthening working lives?
2. What kinds of curriculum models, practices, and pedagogic strategies will best meet the needs of these learners?
3. How can the educational capacities required to meet these needs be developed within and across the PSEIs?
4. How should adult Singaporeans come to engage in the task of securing their employability?

Method

Interviewees

The interviewees comprised 180 working-age adults who had graduated from CET programmes within 4 years from the commencement of the study, and with at least 5 years of working experience. Graduates of CET programmes were selected as interviewees as they had informed insights about the purposes for participating in CET and the kinds of educational experiences provided, including their accessibility and how these provisions engaged them in learning aligned with their purposes for participating.

Most of these informants (63%) were male ($n = 112$), whereas 33% were female ($n = 64$). They were from a diversity of age groups (17.8% were 21–29, 24.9% were 30–39, 33.7% were 40–49 and 23.7% were above 50). These informants represent a range of educational backgrounds, having more years of schooling than the Singaporean mean, that is, 11.2 years (among residents aged 25 years and over; Department of Statistics Singapore, 2020). They are employed in a range of industry sectors, but predominately in education, health and professional services sectors, all of which are prominent in the Singaporean economy. The findings arising from these interviews are presented and discussed in terms of (a) what promotes participation in CET, (b) factors associated with individuals' CET attendance and (c) qualities of effective CET teachers.

Data Analysis

The analysis of quantitative data obtained from the pre-interview surveys commenced with data cleaning through consistency checks and missing value analysis, followed by descriptive analysis, undertaken using SPSS version 27. Descriptive statistics, mainly frequencies, were used to explore patterns of responses associated with

purpose, interest, efficacies and preferences. These response patterns were tabulated for presentation and discussion under the Findings section.

The interviews were fully transcribed for content analysis, using NVivo 12. The process included transcripts being read multiple times and coded to identify patterns and themes to draw out inferences about what the CET programmes afforded the interviewees and how they were engaged with by interviewees through their participation, including their means of attendance and engagement.

Through the interview data, distinct kinds of purposes were identified, including why these adults participated in CET, and how the CET provisions and the qualities of CET teachers were effective in securing their attendance and participation. These analyses are important for identifying alignments among reasons for participating, modes of attendance, and processes of engaging working-age adults as measures of what constitutes effective CET.

Beyond the overall goals for CET programmes, data on how the programmes were delivered (e.g., online, face-to-face, or combination), the approach, dispositions and actions of CET teachers were elaborated through the perspectives of those who had experienced them. Hence, practical findings associated with the organisation of learning experiences (i.e., curriculum) and their enactment can be derived from these data. Further, the findings emphasise the importance of viewing educational goals, processes, and outcomes as being inherently relational (Billett, 2006). That is, bases for understanding degrees relations are founded in the duality between what is afforded individuals on the one hand, and how they come to engage with them, on the other. While this sociocultural perspective privileges the social and cultural settings that are generative of the experiences provided for adults, there is also the need to account for how individuals come to engage with and learn through from those experiences. In this way, there are personal bases to the processes of learning through these programmes. These person-dependent factors underpinned much of the judgements that were made, relating to individuals' personal experiences, needs, capacities or exigencies (Billett, 2006). Hence, it is necessary to understand both the provision of CET experiences and how these were engaged with by individuals.

Ethical Clearance

To ensure confidentiality and privacy, informed consent was secured and explanation of the procedures and participants' rights was provided prior to commencing the interviews. Participants' permission was also sought to record the interviews. In the case of the two participants who declined to be audio-recorded, notes were taken. Further, to maintain participants' confidentiality and anonymity, names were removed throughout this chapter when excerpts of interview data are presented.

Findings

The findings reported here refer to five aspects of the participants' responses about the provision of CET they experienced: (a) key motivations for participation, (b) inhibitors of participation, (c) qualities of effective teachers, (d) government subsidies and (e) future provisions. Each of these is reported and discussed in the following sections.

Key Motivations for CET Participation

As working-age adults' participation in CET is of their own volition, understanding their key motivations is an important consideration for CET providers. Overall, most CET graduates report personal and professional reasons, often associated with employability: securing employment, shifting to new employment or advancing within existing employment. From the survey responses, the interviewees ranked their top three purposes for participating in CET, and while informants referred to learning associated with sustaining employability (i.e., professional motivations), they concurrently emphasised personal betterment and educational outcomes, as constructed by and through individuals' participation in these socially derived activities. These purposes are presented in Table 4.1.

From the interview data, three key motivations for participating in CET were identified: (a) personal and knowledge development, (b) relevance and practicality and (c) professional recognition, all of which emphasise personal factors and epistemologies (Billett, 2009).

Table 4.1 Motivations to engage in CET

Motivating factors	<i>n</i>	Percentage
Increasing possibility of employment	183	22.0
To increase my knowledge or skills	147	18.0
Government subsidy	121	16.0
Keep my job	106	13.0
To do my job better	59	7.0
My company requires me to do so	58	7.0
To obtain a certificate	34	4.0
To improve career prospects	34	4.0
To start my own business	23	3.0

Personal and Knowledge Development

Informants reported participating in CET predominantly to learn new knowledge, maintain their industry relevance, or to advance to the next education level. Some informants also reported intending to utilise the skills they gained through CET to transit to another career:

I wanted to go and take a degree after my diploma. (Female, 21-29)

It's really something that I add on to my personal skill sets. (Male, 40-49)

My key impetus for taking that course was definitely to gain more knowledge and to fulfil my passion in sports, so being an avid runner myself I think the course, I wanted to know more especially from the coaching and the scientific point of view. (Male, 30-39)

I took up the CET programme is because there are many people talking about data analytics, data science. It's a new field to me. Maybe I may need it in the future. But not at the moment, because most SME don't use this technology. And I think it could be helpful to helping my daughter's business. (Female, not specified)

These data suggest that these adult participants have clear intentions (Malle et al., 2001) in participating in CET and that there is a close alignment between professional and personal intents (Billett, 2009). This is perhaps not surprising given that working-age adults' sense of self or subjectivity is often strongly aligned with their occupations (Noon et al., 2013; Suzman, 2020). So, the intertwining of these two sets of intents—the social and personal—emphasises the centrality of CET being able to deliver occupational outcomes that are also important to working-age adults' sense of self. Hence, their ability to sustain employability, either in the form of maintaining their current job or assisting movement to another, is more than an economic consideration (i.e., paid work): it is also germane to who they are as adults: their sense of self or subjectivity. Hence, the relevance and applicability of CET provisions to meet their needs are important.

Relevance and Practicality

There are also informants who engaged with CET to develop themselves professionally. They often measure their achievement based on how relevant their CET is to their work and how the newly acquired skills helped them in their workplace, or the perceived effectiveness of these skills in their future workplace:

It's meaningful, it's useful, something that can be, that is practical I can use in my workplace. (Female, 50+)

It's a skill set where I could use it for the supervision of my staff and the interns that I'm taking on board, so that's the reason, probably the core reason for the CET programme. (Female, 21-29)

I find that training people and actually helping them to learn, will ... have a positive outcome on my work performance as in KPI. So – so that was how I engaged with MTD because I thought ACTA was just the preview and MTD will be give me more theoretical basic kind of practical knowledge at work. (Female, 30-39)

I was actually able to stay relevant and yet also apply like day-to-day stuff like immediately. So it's not like after studying for like two years and then I actually go out to work. It's just like I work and then I study and then I work again. So I actually do apply it really well. (Female, 21-29)

I think I could apply the knowledge and the skills, you know that I've learnt, somewhat to my work. (Male, not specified)

My work involves a lot of technical specification and with this course I am able to understand this system and the – the various equipment of system as being used in the building so in that aspect it helped me a lot. (Male, 40-49)

Noteworthy in these quotations is that the outcomes these working-age adults are seeking to achieve is not premised upon “passing the test”, “getting the certificate” or “achieving high marks”, but rather, applicability to their work-life goals. That is, the kinds of valued outcomes stated here are about the various applicable outcomes achieved through the education provision, rather than the certification provided by it, which is perhaps far more valued in school and preparatory education and training. Thus, rather than participation in an educational programme being an end within itself, these working-age adults are seeking outcomes from it that are aligned with their employability goals, and it is these that drive their intentionalities (Malle et al., 2001). This is not to say that certification is unimportant, but that the certification and other outcomes need to be aligned with the individuals' employability goals. In this way, their purposes for participation are shaped in the negotiations that comprise the duality between what is being afforded through these courses and what they mean for these individuals.

Professional Recognition

Indeed, there were informants who enrolled in CET to secure recognition in the form of a new certification as well as the increased opportunities it brings. Yet, again, rather than the inherent qualities of certification, they often measure the degree of their achievements based on tangible goals, such as a wage increase and being able to assume new roles due to their new qualifications:

I was told that this particular course was really marketable and is upcoming and so it's something that I could acquire to make myself more marketable also in the work front. (Male, 30-39)

I wanted to use it as a stepping-stone to get a new job or move in a different industry which I managed to do that. (Male, 40-49)

First thing is transactional, you got your paper to show your work. You have a qualification there. One. Another reason I should relay to my friends is progression. You get to go for your masters, you get to study more. (Male, 21-29)

Number one is the certification. Err which also can help me to build up my resume and ... and ... recognition that I'm knowledgeable and skilful in this industry yeah. (Male, 40-49)

To me it's that I, I achieved in terms of my job scope gets expanded. I got recognition in terms of the things I do and I was given a bigger job scope. To me is, that is in a way of promotion. (Male, 40-49)

I think the programme also helped me to secure a job much faster than my peers. (Male, 30-39)

These motivations and personal purposes are essential to be accommodated in the focus and design of CET programmes as these adults reported electing to participate in them for these kinds of specific purposes. Hence, understanding those decisions and judgements about the likelihood of achieving those purposes is important to gaining insights into how effective CET provisions can be enacted to enhance individuals' participation in CET following their initial training.

As Roscoe (2002, p. 3) stated, "no professional completes their initial training equipped to practice competently for the rest of their life". This aphorism underscores the importance that professionals (as perhaps all working adults) must further develop their occupational knowledge to maintain the relevance of their skills (Lester, 1999). The key is that CET engagement and motivation are inextricably interwoven. Motivation empowers and strengthens CET engagement that leads to individuals' actions in their CET participation. According to Tranquillo and Stecker (2016), there are three interrelated basic psychological needs that serve to promote and enhance individuals' intrinsic motivation in their engagement with continuing professional education: *autonomy*, *competence* and *relatedness*. The same or similar psychological needs were often reported as in the quotes above. While autonomy denotes the ability of the individuals to act and make decisions independently on their CET engagement, competence refers to the feeling of pursuing and realising their CET goals in a proficient manner. Given the centrality of sense of self and subjectivity of these working-age adults and the threats to it by the prospect of unemployment (Billett, 2008), redundancy or failure to transfer to a preferred occupation, there is a necessary consideration of how their sense of self can be maintained, in such circumstances and negotiations. These issues are exemplified in the formation and maintenance of emotional bonds with others, such as peers in CET programmes. An environment that fosters these elements can prime individuals to become engaged and invested in their CET, but in a psychologically safe way that supports and extends their subjectivity as working-age adults. Here, issues about counselling prior to engagement in CET and assisting graduates in realising their employability goals begin to emerge as key adjuncts to the CET provision itself.

Inhibitors to Participation in CET

While gaining insights into working-age adults' motivations and personal purposes for engaging in CET is essential, understanding the factors that inhibited their participation is equally, if not more, important. This is because, ultimately, individuals decide how they come to mediate what they experience and learn from it (Billett, 2009). The Phase 1 interviewees reported common external environmental factors such as work commitments, travel time, family commitments, cost, and access to venues, as common inhibitors to their CET participation. These inhibitors are indicated in Table 4.2. It is noteworthy that time associated with work and travel are the

Table 4.2 Factors inhibiting CET participation

Inhibitors	<i>n</i>	Percentage
Job demands	71	20.9
Travel time	61	18.0
Family care commitments	43	12.6
Fees for CET programmes	32	9.4
Location of CET providers	30	8.8

most frequently mentioned impediments. For instance, Phase 1 informants advised that they spent, on average, almost 1.5 h travelling per day to and from work.

While the occupational fields of the interviewees encompass various industries, these inhibitors are consistent with past literature that examined the barriers to participation in continuing professional development and education globally across Africa (Bwanga, 2020; Kanamu et al., 2017), Australia (Marriott et al., 2007), Canada (Penz et al., 2007), Japan (Mizuno-Lewis et al., 2014), Malaysia (Aziz et al., 2013), Saudi Arabia (Aboshaiqah et al., 2012) and the UK (Furze & Pearcey, 1999). These barriers can be categorised into three broad areas: attitudinal, physical and structural.

Attitudinal barriers are denoted by the lack of self-motivation and the feeling of CET's irrelevance to their personal and professional needs. While engagement with CET remains a personal pursuit where individuals identify their own learning needs and engage in appropriate CET programmes, there is a need to adopt a more holistic approach and to establish a CET system where the provisions of CET are made more equitable to everyone if they wish to engage in it. Learning is more effective when the learner is engaged in applying theory to practice (Harden & Laidlaw, 2021). This holds implications for the CET teachers in creating rich and authentic experiences for the learners that will engage them.

Physical barriers are identified as impediments that hinder individuals' participation in CET. Factors such as time constraints, work and family commitments, financial constraints, distance to CET venues, and restricted accessibility to learning resources are examples of physical barriers. To help their employees overcome some of these barriers, employers can consider providing employees with protected time and supporting employees' CET to take place during working hours.

Structural barriers are largely represented by practices, procedures and policies that serve to limit individuals' opportunities to engage in CET. Examples of these structural barriers may include, but are not limited to, lack of knowledge about CET opportunities, staff shortages, poor CET programme administration and lack of employer's support. In our study, while there is an electronic portal that seeks to offer a one-stop solution to companies and individuals looking for suitable accredited CET courses, there was generally poor user experience among our informants with regard to this portal:

I did try to enquire some course on the SkillsConnect or SkillsFuture, but I realise that the information, I have to wait quite a long time for people to reply me? So, if you ask me what can the SkillsFuture do? It makes me wonder if that the listing there has been reviewed actively, because you know firstly, when I recently enquired about the course, they told

me that I should have contacted another person, but I told them that the person I contacted is actually being listed as the contact person in the SkillsFuture website. After that, I did ask a series of questions, which nobody replied me, and we have to follow up with a call. And then, they said that they will get the information sent over, which until now, I have not received the email of the information. So, my comment on the SkillsFuture that, even before they are thinking about reaching out to people, maybe they have to think about responding to people first. (Female, 30-39)

A sizeable proportion of our informants is employed by small- and medium-sized enterprises (SMEs), and due to a shortage of staff and associated high workloads in SMEs, these informants often had to forgo their CET participation to sustain the company's productivity:

I think one of the biggest challenges is manpower, because now with the rising operation cost and manpower cost right, it is kind of difficult for SMEs to hire like, workers in excess.... SMEs, they are faced with this double whammy whereby clients are cutting down cost and then your staff is asking for better rates, payouts. So, the SMEs can only hire a workforce that can sustain their current client, they cannot hire in excess. So, when we were considering sending engineers or staff for courses right, so these people who are not available during that course period, the other engineers or other staff will have to cover the workload. So typically, I feel that the duration of the course is very essential. So, if it's just a two-day course or a three-day course, I feel that the company is quite supportive. But if let's say, you are talking about a long-term course where the person will have to be involved in a year or a few months, then it is quite tough, because the workload will be too heavy to take, and you cannot possibly delay a client's request for that long. (Female, 30-39)

At times, this challenge may be aggravated by poor organisational culture where managers or employers do not believe in the need for CET.

Qualities of Effective CET Teachers

The quality of education can never exceed the quality of teachers and their teaching. In order to develop a functioning and sustainable CET system, we must first understand what constitutes effective CET teaching. In the pre-interview survey, the informants indicated from a set of descriptors, with the option to add more, what constitutes the qualities of effective CET teachers. The responses are presented in Table 4.3. In this table, the qualities are set out in the left column, ranked in terms of frequency [*n*], indicated in the right-hand column.

The data are consistent with past teacher effectiveness research that identified a range of attributes and competencies that influence the quality and effectiveness of teaching. These qualities include:

- i. Deep representation of subject matter knowledge (Berliner, 2001, 2004)
- ii. Ability to relate to individual students (Lingard et al., 2002)
- iii. Repertoire of pedagogical skills (Shulman, 1986, 1987)
- iv. Creating optimal environments for student learning (Hattie, 2003)
- v. Problem-solving skills (Ayres et al., 2000)

Table 4.3 Effective CET teachers' qualities

Teaching practice	<i>n</i>
Providing relevant experiences for learners' needs and purposes	138
Accounting for and are sensitive to students' readiness	109
Make applicable the concepts (e.g., theories) they are advancing (i.e., teaching)	109
Illustrate what is to be learnt and its purposes (e.g., examples, stories)	98
Demonstrate competence in the field in which are teaching	84
Assist meeting learners' purposes and needs by being flexible and adaptive with approaches to teaching and assessment	72
Engage and utilise learners' experience and agency	67
Engage interactively and reciprocally with learners	67

While these qualities reflect what our informants expect of their CET teachers, what is perhaps noteworthy in their ranking of these qualities is the dual goals of promoting the students' employability and sustaining their sense of self as working-age adults. Interwoven through these responses are both sets of concerns. Hence, the requirements for an effective CET educator are more than having the occupational knowledge required to practise the targeted occupation; there is also the ability to provide experiences that will assist the students to learn that knowledge effectively so they can then apply it. Yet, and in addition, those teachers are required to exercise educational experiences in ways that are commensurate with the adult learners' existing readiness and capacities and in ways of engaging them respectfully in those processes that draw upon their experiences and contributions as adult members of the community.

Hence, in these responses, the requirements for effective CET teaching emphasise the duality of the educational needs of these adults: developing their employability and sustaining their sense of self in doing so. Clearly, there are issues of precarity being rehearsed here. That is, in embarking upon CET, these students potentially risk consequences for their sense of self as working-age adults. All of this suggests that overcoming issues of inequality and enhancing accessibility to CET for the adult-age population is more than the provision of programmes: it extends to how they are designed (i.e., to meet employability goals) and assisting these working-age adults to engage in a potentially precarious transition. That transition is prone to being risky, particularly in the era of the COVID-19 pandemic in which employment options and work requirements are becoming more dynamic, and older workers are potentially inhibited by societal sentiments that view them as being less adaptable and responsive, making it more difficult for them to learn new work requirements (Billett et al., 2021a, 2021b).

Government Subsidies for CET

Subsidies in the form of payment is an accepted practice in Singapore to encourage participation in specific kinds of education, and CET is no different in this regard. The potency of subsidies is evident in responses to the question about whether people would participate in CET if there were no subsidies. As can be seen in Table 4.4, there is a strong consensus among the respondents that subsidies are likely to be an important factor for individuals' decisions about CET participation. Of those who participated in CET, approximately 60% suggested that they would probably not do so without subsidies. These government subsidies are seen by working-age adults as important incentives for participating in CET programmes, more so by those who have not participated in CET as compared to those who have.

The level of financial support an adult learner receives is likely to affect the possibility that he or she will engage in CET. Poverty and living situations may also serve to limit or prevent access to supportive technology, such as a stable Internet connection, and these situations may also leave an individual with limited places to study (Bamber & Tett, 2000). Across different professions, financial constraints remain a major impediment to CET participation among working adults (Eroglu & Kaya, 2021; Zhang et al., 2020), and often this constraint may be a major determinant in their decision to engage in CET. Even though the Singapore Government's recurrent expenditure on education has steadily increased over the years (Department of Statistics Singapore, 2021a), the number of training places taken up under the Skills Training and Continuing Academic Education Programmes under the Institute of Technical Education has witnessed a drop from 20,932 in 2010 to 7650 in 2020 (Department of Statistics Singapore, 2021b).

While providing CET subsidies appropriate to sustaining employability may appear to be attractive to working adults, the fees for CET programmes appear to be of a lesser concern than their job and family commitments (see Table 4.2). Successful attainment and progression through CET provisions often go beyond the dollars and cents to involve a constant fashioning and re-fashioning of the self (Reay et al., 2010) to realise one's CET goals. Given that the Singapore Government has been actively promoting and financing CET for its citizenry, the solution to increasing CET participation may perhaps lie in situating CET within the workplace to assuage the various concerns of working adults that inhibit their engagement with CET. With these considerations in mind and, in particular, to find ways of securing accessible and supportive provisions of CET, it is worthwhile considering what those provisions might look like in the (near) future.

Table 4.4 I would not sign up for a CET programme that is not subsidised by the government

Group	<i>n</i>	Percentage of responses			
		Strongly disagree	Slightly disagree	Slightly agree	Strongly agree
Did CET	462	9.1	19.7	28.3	32.0
Did not do CET	236	4.5	13.6	36.7	34.5

Table 4.5 Workplace actions to support learning

Actions in the workplace to support learning	Did CET		Did not do CET	
	<i>n</i>	%	<i>n</i>	%
Opportunities for applying what you have learnt in CET	377	71.1	180	68.0
Opportunities for learning at work (new challenging tasks within current job)	329	62.1	154	57.9
Opportunities for progressive rotation of job roles	291	54.9	146	54.0
Mentoring by more experienced colleagues	235	44.3	118	44.4

Future Provisions of CET

The Phase 1 interviewees often referred to their workplaces as being an important site for their ongoing learning within and across their working life. This raised questions about how learning can be supported through workplace provisions, and how PSEIs can reach out in support to promote workplace learning. Phase 2 respondents indicated how their workplaces could support the CET-related learning. As presented in Table 4.5, a key priority for both groups of participants (i.e., those who have participated in CET and those who have not) is the availability of opportunities in the workplace to apply what they have learnt from their CET programmes in their work.

The next most preferred workplace action was the provision of opportunities to promote learning through engagement in new tasks, as well as structured experiences in their workplace, such as progressive job rotations and direct mentoring. In this way, the provision of learning experiences and follow-up support in the workplace in terms of organising those experiences and augmenting learning through mentoring offers a way forward. In expressing their “wish list” for supportive workplace learning practices, the informants refer to experiences that are highly accessible to them and that offer highly applicable learning outcomes that can be exercised in their existing workplaces. Most centrally, the most preferred option emphasises the key imperative of employability outcomes from CET: that what has been learnt needs to be applicable to work practice and this should be inherent within the CET programme itself. That is, more than an institutional focus on teaching and assessment being the endpoint, the educational provision needs to engage and extend into their work activities. There are specific suggestions about how that learning can arise within their existing workplace to achieve the kinds of goals that are important to them in ways that are guided and effectively supported. Again, these responses emphasise that participation in CET should be directed towards developing capacities that can promote working-age adults’ employability, thereby sustaining their sense of self as adults.

The respondents also ranked a set of suggestions about how CET provisions could be enhanced by contributions from workplaces reaching into the provisions provided within CET institutions; that is, how the workplaces can be integrated within the CET

Table 4.6 Actions by CET providers to support work-based learning

Actions by CET providers to support learning through work-based activities	Did CET		Did not do CET	
	<i>n</i>	Percentage	<i>n</i>	Percentage
Industry experts to deliver lessons	294	56.6	122	46.2
Work placement/attachment opportunities related to CET course	284	54.7	159	60.2
Linking CET assessments to work-based activities	281	54.1	126	47.7
Work-based educational project	244	47.0	114	42.2
CET teachers coming into the workplace	125	24.1	62	23.6

programmes and support learning in and through work. Their rankings are presented in Table 4.6.

In their preferences, there is a very strong emphasis on integrating and making relevant the CET provision by extending it into the workplace. This includes having industry experts engage with learners through presentation, learners having the opportunity to engage in workplace experiences, and work-based activities being used as the basis for effective and reliable assessment. Added here is a focus on projects based on the workplace, with CET teachers engaging in the workplace being the lowest preferred action. Again, noteworthy here is the emphasis on the organisation of the curriculum, as well as pedagogic and assessment strategies being linked strongly to the work-related activities of CET learners. In these ways, future provisions of CET are seen to be strongly associated with having and integrating workplace experiences as part of the CET programme, its teaching and its assessment. Further, there are consistent emphases on finding ways to integrate the two sets of experiences (i.e., in the workplace and PSEIs) to achieve effective CET outcomes. This finding is consistent with the government's initiative to integrate and foster a stronger link between the curriculum taught in school and the needs of the workplace and industry through the SkillsFuture Work-Study programmes.

Conclusion

The CET space is a site where individual identities converge are contested and reconciled through their experiences of participation in it. It is also a place where individuals can share differing viewpoints and contradicting opinions as members of a community in co-constructing their CET experience. To realise the key goals of education provisions is for them to be broadly inclusive, meeting the needs of those for whom they are being designed; enacted in ways that make them accessible, both in physical and educational terms; and offering experiences that achieve the kinds of outcomes that these individuals want. What has been proposed here is that provisions of CET need to address dual goals: developing the employability of students and graduates but doing so in ways and with outcomes that sustain and support working-age

adults' sense of self. Curiously, some earlier perspectives on adult learning and development are premised upon clinical psychological models associated with a primary focus on maintaining potentially fragile individuals' sense of self (Rogers, 1969). This is accompanied by Erving Goffman's ideas about the importance of adults' projection of self in daily life (Goffman, 1990); that is, the centrality of a personal narrative exercised and projected by individuals to sustain their sense of self. This led to earlier accounts of adult education premised upon Rogerian clinical models and concerned about facilitation of learning—making things easy—to maintain adults' sense of self during periods of transitions (Rogers, 2001).

There has been movement away from those considerations to embrace more comprehensive considerations of adult learning, including their prior knowledge, prior experiences and more broad-based accounts of development. Yet here, while not as fragile or precarious as perhaps was suggested in those earlier accounts, the importance of addressing adults' sense of self as learners and constructors of knowledge is perhaps never greater than in considerations of their learning for, in, and through working life. The interconnections between that sense of self and these adults' occupations, work roles and satisfaction derived from working life are clearly indivisible, from the kind of data presented here. In this way, the findings reflect the importance of the sociocultural perspective that draws upon and acknowledges the contributions of an relations between the suggestions of the social world and how individuals engage with those suggestions and learn through them (Billett, 2006).

Returning to earlier models and approaches emphasises the need for counselling and guidance, not so much as therapeutic interventions (Rogers, 1969, 2001) but to assist working-age adults in making informed choices about the kinds of programmes they want to participate in and the alignments with their work-life goals, promoting their readiness to engage effectively, thereby supporting successful outcomes (Billett, 2015) and being provided with the kinds of educational experiences which will achieve those employability goals. However, just as counselling might be required prior to participation in these programmes, so might it be advanced at their conclusion. The focus here is not on a therapeutic response to protecting sense of self, but rather to perhaps assist graduates in securing the employment goals that they seek to achieve either within the existing occupation or in their transference to new ones.

Since the ability to participate in CET is mediated by individual and situational contexts, which may expand or restrict one's choices (Sen, 1999), it is essential that these voices, such as those of our informants, are embedded within a CET structure that maximises educational opportunities while providing individual flexibility. Without a significant shift in approach, the current CET model is likely to reinforce and perpetuate existing inequalities not only in terms of access, but also engagement, attainment and sustainability. This would be a regressive outcome when the ongoing challenges precipitated by the COVID-19 pandemic and digital revolution underscore the criticality and urgency of CET more than ever. The findings from our study suggest that the pursuit of an effective CET model in enhancing continued employability necessitates a new paradigm grounded in the collectivisation of CET as a social enterprise and shared responsibility, while upholding the principles of learner-centred education. The interdependence and collective expertise of the PSEIs and other CET

providers, with the support of the state, can be harnessed both to support working adults' individual CET pursuits and advance workplace productivity. When multiple CET pathways are available by which CET can be engaged and re-engaged over the working lifespan of adult workers, individuals are better able to appreciate and benefit from a responsive and adaptive system that accommodates individuals' needs and circumstances, while contributing to a shared sense of responsibility, purpose, and identity among its stakeholders.

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