Work-based education in VET
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INTRODUCTION
The inclusion of work as a distinct component of an education program is a key element of a successful vocational education and training (VET) system. This summary explores available literature with the aim of identifying the benefits and challenges associated with work-based education experiences. It also presents a range of best practices for the provision of work-based education.

The benefits of work-based education for students include smoother transitions into ongoing employment and the development of broad occupational skills. Employers benefit from productivity gains through ‘work-ready’ recruits, having current employees upskilled in the workplace, and the more effective transfer of skills learned in the classroom to work tasks.

The challenges of work-based education for employers relate to costs and resourcing. For training providers, on the other hand, resourcing and coordination of placements are areas identified as problematic. Students are constrained by motivation and access to work-based education opportunities.

HIGHLIGHTS
- Work-based education can lead to better employment outcomes for students and provide employers with workers who have skill sets relevant to the employer’s industry and workplace gained through structured training.
- The extra resources required to successfully host a student mean that cost is often a barrier to work-based education faced by employers. Targeted financial incentives can assist in addressing this, enabling a wider range of businesses to access students for participation in work-based education programs.
- Communication and coordination are key to quality work-based education in VET. The roles and expectations for all involved should be made clear before training begins, and regular communication between training providers, employers and students is key to successful work-based programs.
WHAT IS WORK-BASED EDUCATION IN THE CONTEXT OF VET?

This summary examines structured VET programs that include a component where a student works in an appropriate organisation or business as part of their learning.

An education program that includes learning in a work environment is a familiar concept to most people. A wide variety of terms are used to refer to this: from the specific — apprenticeship, traineeship or internship — to the general — work-based learning, work-based training and work-integrated learning. In this summary we use the term ‘work-based education’ to describe structured programs that include learning through work, often resulting in a qualification. The documents referenced here may use different descriptors, in that some of the terms given above are used interchangeably across various industries and/or locations, or they may even have different meanings in different contexts. Additionally, the focus here is on structured VET programs, that involve a student working in a related occupational area to further their learning.

Examples of work-based education include:

- apprenticeships
- traineeships
- internships
- cadetships
- paid and unpaid work placements.

This summary specifically aims to highlight the benefits, challenges and best practices of work-based education approaches outside traditional apprenticeship and traineeship models. The latter include a specific contractual relationship between the student and employer and have been widely investigated in other research. For more on these forms of work-based education, see <https://www.voced.edu.au/pod-apprenticeships-and-traineeships>.

Some research considers that various types of work simulation, such as flight simulators or even structured work-role play, constitute a form of work-based education. In some instances, work-based education placements are difficult to organise; for example, opportunities for learning through traditional work-based activities may be limited due to transportation costs, geographic isolation, or safety issues. In these situations simulations may offer an effective alternative approach (Moyer et al. 2017). However, this summary is primarily concerned with work-based education that includes engagement with real work.

BENEFITS OF WORK-BASED EDUCATION

Programs involving work-based experiences have the potential to facilitate better employment outcomes for students, a strong return on investment to employers and governments, and flexible and effective options for training providers.

(Billett 2019a; Comyn & Brewer 2018; Frech et al. 2019; ICF Consulting Services & Fitzpatrick Associates 2018)

Benefits for students

Work-based education can build both specific technical skills and more general employability skills in student workers. Several studies have found that work-based education provides an environment in which students can practise and develop qualification-relevant skills and knowledge as they perform real job tasks in the workplace.
Reviews of past programs found that students undertaking work-based education improved their employability skills to a greater extent than those not undertaking work-based education (Kamaliah et al. 2018; Komariah 2015). Employability skills, which include teamwork, communication, critical thinking and decision-making, are key skills for any successful employee and may not be explicitly addressed during the classroom experiences of students in non-work-based programs.

Work-based education can also promote an understanding of workplace culture for both domestic and international students, with the social interaction and engagement with workplace activities experienced by students facilitating this (Barton & Billett 2017). International students undertaking VET in Australia particularly value work placements as a means of gaining this cultural experience and understanding and view them as providing a competitive advantage in the labour market, either in their home countries or elsewhere (Tran & Soejatminah 2017, p.264).

Contact with workplaces and potential employers through work-based education experiences, along with their enhanced employability, has the potential to increase the likelihood of students’ transition to good-quality, sustainable (ongoing, full-time) employment, in some instances, with better wages (Comyn & Brewer 2018; Frech et al. 2019). The multi-country School-to-Work Transition Surveys, conducted by the International Labour Organization (ILO), found, on average across countries, a much shorter transition to employment for those students who had combined work-study programs, by comparison with those whose training had been entirely institution-based (1.9 months compared with 20.1 months) (Comyn & Brewer 2018, p.23). Work-based education can also encourage students to engage in further study, with some training providers seeing work placements as leading to an increase in the take-up of apprenticeships (Learning and Work Institute & Fair Train 2017).

Benefits specific to young people

Research from the European Training Foundation (2013) suggested that work-based education has distinct advantages for young people, specifically, in boosting wages and improving the transition from education to employment.

Other researchers demonstrated that work-based education can provide young people with opportunities to:

- build a work history while exploring a range of different career opportunities/roles within an industry or an organisation (Showalter & Spiker 2016)
- develop their occupational identity (Comyn & Brewer 2018)
- learn to manage their working selves and find their place in an organisation (Bahl & Dietzen 2019)
- practise and build skills and knowledge in the physical and social context of work, while working alongside experienced colleagues (Bahl & Dietzen 2019; Papier 2017)
- gain an understanding of what the employer or industry will expect of them (Bahl & Dietzen 2019; Papier 2017).

Work-based education experiences can also improve job and life prospects for youth at risk (Kis 2016; Showalter & Spiker 2016). Assisted by strong connections with local employers, many training programs already use work placements to help vulnerable young people into education programs or employment (Showalter & Spike 2016; Kis 2016). Successful programs combine occupational and work-readiness training while providing the necessary income support (Showalter & Spiker 2016). These programs have been purpose-built to meet the needs of a target group, often achieving high retention rates relative to the target group in question (European Training Foundation 2013, p.31). Kis (2016) adds a caveat, however: although access to work-based education can be valuable in supporting young people, including those at risk, it does not guarantee completion.
There is also evidence that internships are becoming an integral part of young people's transition into employment (O'Higgins & Pinedo 2018; Comyn & Brewer 2018; Stewart et al. 2018). The National Association of Colleges and Employers (NACE) in the US measured the impact of participation in work-based education on job offers and starting salaries (Comyn & Brewer 2018). This revealed that both were higher among students who had internship experience than those without (Comyn & Brewer 2018, p.17). The financial model of the internship seems to affect the outcome, with O'Higgins and Pinedo (2018) finding that paid internships are associated with better labour market outcomes post-internship than unpaid internships.

Benefits for training providers

The various components of work-based education mean that learning programs are more comprehensive and versatile and have the capacity to improve the reputation of training providers. Workplace learning, as a complement to the classroom setting, can enable training providers to support students to identify the occupation for which they are best suited and to build their capacity to engage in that occupation (Billett 2009).

The most common advantages of work-based education for training providers are:

- improved relationships with employers
- enhanced student motivation
- more positive reputation as a training partner
- continuing professional development opportunities for staff
- better informed teaching practices (Learning and Work Institute & Fair Train 2017).

Benefits for employers

Many studies highlight the benefits for employers of participating in work-based education programs, with the key benefits including:

- higher productivity
- improved employee recruitment and retention
- enhanced corporate image
- improved staff satisfaction
- more opportunities to address skill gaps (Baker, Cathcart & Peach 2019; Cedefop 2015; Comyn & Brewer 2018; European Training Foundation 2013; Moyer et al. 2017).

Work-based education has the potential to fill gaps between the content of nationally recognised programs and employers’ skill needs. Skills that are important to performance that have not been covered during off-the-job training can be learnt during the work component. Furthermore, it can promote competition and increase the appeal of a workplace for potential recruits (Cedefop 2015), while the companies themselves may save recruitment and salary costs by using work-based students (Sweet & Thomas 2018). One study saw employers requesting students for placement as an alternative to undertaking lengthy recruitment processes to fill short-term vacancies (Papier 2017). In some cases, employers can engage under-represented populations, leading to a broader population of available workers (Showalter & Spiker 2016). With its strength in linking skill development to real work tasks, work-based education can be used to help students to become familiar with workplace requirements rapidly, as well as enable easier transfer of their newly acquired new skills to everyday work. This, in turn, contributes to overall firm productivity and performance and provides a potential source of ongoing employees.
Employees undertaking work-based education display greater ongoing commitment and engagement, which means the business receives immediate benefits (Baker, Cathcart & Peach 2019). Taking on a workplace training role as part of work-based education can also be a means of career development for current workers. In addition, the knowledge and skills acquired by students during the non-work-based elements of their training may be more up to date than those of existing staff (Hodge et al. 2017). This offers existing employees the opportunity to learn from the students during the process of sharing their work knowledge and experience.

Case study: Career Traineeship Program (Ireland)

The Career Traineeship Program in Ireland aims to provide a course of specific skill development to enable career progression across a range of occupations. The model combines work and classroom-based learning and seeks to be responsive to skill needs at the local and national levels. Education and training boards (ETBs), employers and practitioners work together to identify local and national skill needs, and then assist ETBs to create core training modules that retain the flexibility to respond to local employer requirements. Students graduate with a certificate or diploma in the relevant field (for example, engineering, hospitality and marketing). While there was no direct salary from employers for this program, some trainees were employed in other roles during the program, and unemployed trainees were eligible for government support.

Other features of the Career Traineeship Program include:

- signed agreements between ETBs and employers, setting out roles and responsibilities
- training for workplace supervisors in the delivery of work-based learning
- collaboration in identifying industry skill needs
- collaboration between clusters of same-sector employers to offer work-based learning in their industry area.

A 2018 evaluation of the pilot program found that employers, ETBs and learners welcomed the application of the Career Traineeship model, assessing it as relevant to their individual needs. For learners, the model offered opportunities to gain work experience and skill proficiency in real work settings. The model also provided support for accessing employment, with 94% of the 164 Career Traineeship completers employed by the end of the program. For employers, the model filled skill gaps and enhanced productivity by providing work-ready candidates and cost savings (ICF Consulting Services & Fitzpatrick Associates 2018).
Challenges to successful work-based education have been identified in numerous Australian and international studies. Employers may be deterred by the cost of work-based education; training providers may experience difficulties in engaging appropriate employers; and students may face stigma in choosing work-based education and occupations in which it is widely used.

(Billett 2014, 2019a; Cedefop 2015; European Training Foundation 2013; Sweet & Thomas 2018; ICF Consulting Services & Fitzpatrick Associates 2018; Learning and Work Institute & Fair Train, 2017)

Challenges for students

In some countries, the link between occupations that are viewed as less desirable (such as those involving manual labour or more basic technical tasks) and work-based education can influence the decisions students make about their education path (Billett, 2014, 2019a). Alternatively, students may have trouble securing placements due to a lack of appropriate employers, or an unwillingness of employers to participate, particularly in regional and remote areas (Learning and Work Institute & Fair Train 2017; Tran & Soejatminah 2017).

Experiencing increased stress and pressure during work-based education can also lead to students being reluctant to engage fully in their program or to withdraw from study, both of which could be attributable to:

- techniques and approaches in the workplace contradicting what students have learned
- students seeing potential for improvement at a host organisation but feeling uncomfortable about making suggestions or not having a clear path to do so
- placements occurring outside course hours, costing more and/or adding time to qualifications
- validation systems that leave some of the acquired skills and knowledge unrecognised
- transportation costs, particularly with limited or no travel reimbursement (Cedefop 2015; Hodge et al. 2017; ICF Consulting Services & Fitzpatrick Associates 2018).

Discrimination can be present in host organisations, making work placements daunting and hindering student motivation. For example, the gender-based disparities entrenched in many industries result in bad experiences for individuals or discourage others from applying for placements. For international and migrant students, finding and securing placements can be hard, with their inadequate language skills often cited as a determining factor — even in countries where VET is viewed as significant in enabling integration (Bergseng, Degler & Luthi 2019).

Challenges for training providers

For providers, the challenges associated with work-based education are primarily resource-related, with many of them lacking the resources to effectively establish and maintain employer partnerships. Having small numbers of staff responsible for organising work placements can lead to low numbers of viable work-based education options and an inability to meet demand (Association of Employment and Learning Providers & City and Guilds 2018).

Where providers are responsible for managing and monitoring placements, they face challenges such as:

- negative perceptions of work-based education held by both employers and students
- occupational health and safety (OHS) requirements and restrictions
• difficulties in ensuring ongoing quality
• difficulties in coordinating employers
• integrating placements into course schedules
• monitoring student motivation, particularly students in remote and rural settings (European Training Foundation 2013; ICF Consulting Services & Fitzpatrick Associates 2018; Learning and Work Institute & Fair Train 2017).

Challenges for employers

Employers cite cost as the most common reason to reject opportunities for work-based education placements. These costs encompass:

• staff time and loss of productivity
• tools and materials
• additional administration
• technology requirements (Cedefop 2015; European Training Foundation 2013; Sweet & Thomas 2018).

Work-based education requires a business to commit resources and time, both of which could be used for other productive tasks. Organising programs that are relevant, practical and valuable to a student’s coursework, and incorporating them into the business, requires commitment and time (European Training Foundation 2013; ICF Consulting Services & Fitzpatrick Associates 2018). Many businesses cannot afford to release key personnel to supervise students (Cedefop 2015). In addition to this, the resources required are often underestimated and some supervisors are untrained (Cedefop 2015). Overseeing work-based learning alongside their normal responsibilities can be inconvenient for employees and may increase administrative burdens (OHS inductions, risk assessments etc). (ICF Consulting Services & Fitzpatrick Associates 2018).

Many employers lack a clear understanding of what is involved in work-based education and how it can benefit them (Cedefop 2015), while some may also be sceptical about the ability of students to contribute positively to their business. Both of these views may be a consequence of their lack of experience with work-based education or of negative experiences with past placements (Foster et al. 2018). A lack of information on placements or rigid perspectives can prevent the take-up of new candidates — candidates who may indeed possess current knowledge and the skills to contribute productively. Surprisingly, stereotyping is also found amongst students and their training providers, as well as in host organisation staff (Hodge et al. 2017).

BEST PRACTICE FOR WORK-BASED EDUCATION

The key to overcoming most of the challenges associated with work-based education is successful teamwork. Gaps in communication between providers, host organisations, and students all impact on work-based education and its outcomes. Ideally, training providers should work with industry bodies to create the curriculum and provide adequate student support, leading to wider business participation in work-based education programs. Employers create value for work-based programs by increasing how relevant the learning is to industry. With targeted training policy and appropriate financing, policy-makers can create environments conducive to the provision of work-based education. (Cedefop 2015; Learning and Work Institute & Fair Train 2017).
Training providers

Best practice on the part of training providers includes ensuring adequate preparation for work-based education and supporting both the student and the employer. In addition to preparing them for the workplace, training providers need to support students during and after placements.

Before training, providers can:

- **Define responsibilities:** this means identifying and communicating the roles that students, teachers and employers each have in work-based education. Confusion over the various roles can result in a mismatch between expectations and experiences for employers and students (Tran & Soejatminah 2017).
- **Provide students with support and guidance in arranging the placement or equivalent required for work-based education:** having to arrange work placements with minimal support often results in a negative experience for the student.
- **Match students to their employers:** this can be achieved by organising interviews or short work trials with the host organisation (Learning and Work Institute & Fair Train 2017; Foster et al. 2018).
- **Make workplace expectations clear:** this might include explaining the appropriate professional behaviour and clothing. One option for addressing this is to run preparatory workshops that focus on job-readiness and life skills before students commence (Tran & Soejatminah 2017; Learning and Work Institute & Fair Train 2017; Papier 2017).
- **Encourage employers to consider paid work-based education placements:** this can function as a means of providing essential income to those students who have been disconnected from the workforce (Showalter & Spiker 2016). Note this may not always be possible for the employer, particularly small business owners.
- **Prepare students for difficult experiences and provide support services:** students may encounter difficult situations in the workplace, including conflict with existing workers or management. Training organisations can set up support services from the beginning of training to help manage these situations (Billett 2019a).

Employers

Best practice for employers includes coordinating with training providers in the planning of industry-relevant work-based education programs and supporting students in the workplace with effective mentorship and teaching.

To engage with training providers and support student learning, employers can:

- **Invest in training for workplace mentors:** investing in training mentors ensures they will have the necessary skills to manage students under supervision (European Training Foundation 2013). In some cases, this may require financial support from government or other organisations.
- **Establish clear expectations:** this could include creating a specific job description for the work placement student and identifying goals and objectives relating to specific tasks, in collaboration with training providers and learners (Learning and Work Institute & Fair Train 2017).
- **Create environments conducive to learning:** this includes recognising and valuing student work, providing constructive feedback and being supportive in answering student queries (European Training Foundation 2013).
- **Provide students with appropriately challenging work:** learners benefit when provided with a suitable level of agency and accountability and appreciate the opportunity to work on projects that make a difference to the organisation in which they’re working (Baker, Cathcart & Peach 2019; European Training Foundation 2013).
Maintain involvement in the curriculum design process: by identifying and sharing current local and national skill needs, employers can support collaborative program design, which will lead to better opportunities for graduates (ICF Consulting Services & Fitzpatrick Associates 2018; Moyer et al. 2017).

Engage with work-based education programs external to the organisation: providing facility and equipment advice in the case of simulated work-based education allows training providers to maintain relevant and up-to-date learning environments (Moyer et al. 2017). Employers might support school-based training by providing remote project opportunities and giving feedback on student work (Moyer et al. 2017).

Policy-makers

Policy-makers can collaborate with other stakeholders to create an environment that promotes participation in work-based education by both businesses and learners. Best practice in this area involves setting quality standards and financing work-based learning initiatives. Appropriate financing increases access to work-based education and creates fairer funding arrangements, which spreads costs across the government, community, workplaces and learners (Sweet & Thomas 2018; Billett 2019a). In setting quality standards and incentivising effective work-based education, policy-makers can:

- **Implement quality assurance systems**: accreditation for both training providers and businesses can increase confidence in work-based learning options and promote and support more effective work-based education experiences for students (Billett 2019a).

- **Create nationally mandated standards for work placements**: standards ensure that consistent guidance is given to training providers and firms for the implementation, moderation and assessment of placements (Learning and Work Institute & Fair Train 2017).

- **Monitor working conditions**: unpaid or low-paid work-based learners are vulnerable when regulations are not monitored or enforced. It is vital to ensure that learners are benefiting from their placements and are not in an abusive or exploitative work situation (European Training Foundation 2013).

- **Compensate businesses for training costs**: this can include payroll tax rebates or tax credits, in addition to direct grants and compensation of costs such as student insurance or wage subsidies (Igarashi & Acosta 2018; Sweet & Thomas 2018).

- **Provide targeted financial incentives for employers**: these could include grants, tax incentives or training subsidies that encourage employers to take on learners from targeted equity groups, such as at-risk youth, people with disabilities or those working in rural or regional areas (Kis 2016).

- **Implement training levies**: robust levies that avoid exploitable loopholes can be an effective means of financing work-based education. Levies can encourage businesses to train and prevent firms from shifting their training costs to other firms by simply hiring the graduates of work-based education programs (Sweet & Thomas 2018). Any such levy would need to ensure it rewards quality work-based education.

Success in work-based education is achieved through effective planning, preparation and execution of work placements; cooperation between all stakeholders; and governance that supports access to quality work-based education.
REFERENCES


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