Note on Australia

IMPROVING WORK-BASED LEARNING IN SCHOOLS

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While the impact of the COVID-19 pandemic on work-based learning in schools is yet to be determined, there is now greater uncertainty around where future employment demand will reside. Further review will be required to take the impact of COVID-19 into consideration, and clarify the associated implications going forward.

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Work-based learning plays an important – yet overlooked – role in upper secondary education

Looking at upper secondary schools, the OECD working paper *Improving Work-based Learning in Schools* studied the issue of work-based learning (WBL) as an element of both general education and vocational programmes (Musset, 2019[1]). WBL refers to a set of learning practices that take place in a real work environment, through participation in, and/or observation of work, under the supervision of an employer (Interagency Group on Technical and Vocational Education and Training, 2016[2]).[1] WBL provides learners with real-life work experience that complements their school-based instruction. A distinction can be made in WBL between learning at work (e.g. training done in the work place) and learning for work (e.g. during a work placement as part of a school-based VET programme) (European Training Foundation, 2012[3]). This note excludes consideration of programmes in which over 50% of the time is spent in a workplace, which are typically considered as apprenticeships[2] (OECD, 2018[4]).

Definitions

The project considered three types of WBL:

- **WBL outside of any school programme**, which includes part-time employment and/or unpaid activities such as volunteering, entered into independently by students.
- **School-mediated WBL within the context of general education upper secondary programmes.** These placements (e.g. internships, work placements) typically enable students to learn *about* work. They help students gain mostly soft skills and are a tool for career exploration.
- **School-mediated WBL within the context of vocational upper secondary programmes**. These placements (e.g. work placements within VET school-based programmes) are typically of longer duration than those undertaken within general education. Their main objective is commonly for students to learn *through* work and develop technical skills alongside gaining the sorts of career insights and soft skills that are possible to develop through shorter placements. Longer placements

[1] A number of competing, partially overlapping and often fluid descriptive phrases sit alongside the term work-based learning. These include work-related learning, work-integrated learning, workplace learning, work experience, work shadowing, internships and service learning.

[2] Apprenticeships have been the recent focus of extensive OECD work (OECD, 2018[4]). The unclear definitions have been noted by a recent CEDEFOP report (Cedefop, 2018[45]) and are the subject of on-going OECD work on improving the evidence on VET. The UNESCO OECD Eurostat joint data collection is based on the following classification: first programmes in which more than 90% of the content is spent in the workplace are defined as "work-based" programmes. Second, programmes in which between 25% and 90% are spent in the workplace are "combined school- and work-based programmes". Further distinctions are drawn between work-study programmes (in which students/trainees receive earnings) and combined school- and work-based programmes without systematic earnings. Third, VET programmes in which the work-based component is less than 25% are defined as school-based programmes. Drawing on national data and previous work on apprenticeships (OECD, 2018[4]), the OECD argues for the need for international agreement on a definition for apprenticeships to be used for the collection of comparative administrative data.

linked to programme of vocational learning also allow employers to get to know potential recruits and for students to learn about potential employers.

Stakeholders interviewed by the OECD team in Australia expressed their concerns that WBL has been overlooked as a form of learning and that students do not engage enough in workplaces whether through their schools or independently. There are also some concerns that students are engaging in independent work less than two decades ago.

Focusing on Australia, this note looks at how WBL can be effectively incorporated into upper secondary schools (see Box 1 for details on the methodology). In Australia, upper secondary schools are referred to as colleges or senior secondary schools[3], depending on the jurisdiction. Despite the benefits of WBL being widely acknowledged, national and local authorities and schools face significant challenges in engaging employers and students in such provision.

Box 1. How the information for this note was collected

The note builds on findings from the OECD working paper *Improving Work-based Learning in Schools* (Musset, 2019[1]). Different jurisdictions (states and territories) in Australia provided information about their policies and practices regarding the use of WBL in schools, responding to a questionnaire prepared by the OECD. The information used in this note comes from their responses, unless stated otherwise.

The OECD review team – with the participation of UNESCO – held a field visit to Tasmania and the Australian Capital Territory (ACT) on 12-19 November 2018. The team had meetings with government officials from different government departments (Australian Government Department of Education and Training, and Australian Government Department of Skills, Small and Family Business) as well as with a diverse range of stakeholders, including employer representatives, parents, teachers and students. The team visited upper secondary schools delivering programmes of vocational education and training (VET) and general education, and workplaces offering placements for students. The team also visited industry training centres delivering short certificates mainly for adults and technical and further education Technical and Further Education (TAFE) institutions and universities delivering post-secondary VET programmes and certain vocational options for upper secondary school students.

The OECD and the Australian Government organised a workshop in Canberra on 19 November 2018. The workshop was attended by over 100 people, a mixture of practitioners (VET teachers, school leaders and training provider representatives), policy makers and other stakeholders (employer representatives and researchers). The event focused on challenges in designing and delivering effective WBL.

[3] Most jurisdictions have lower secondary and upper secondary education in the same institution (except for Tasmania and the ACT).

A second workshop was organised in Sweden, jointly by the Swedish National Agency for Education and the Ministry of Education and Science, in Stockholm on 25-27 March 2019. Some 40 people including representatives from different jurisdictions in Australia and several European countries attended. Participants collected and shared innovative practices and visited different types of secondary institutions providing WBL to students.

There are many benefits of WBL

Workplaces are powerful learning environments for students

The workplace is a powerful learning environment where technical skills can be learnt from expert practitioners using actual equipment, while students can also acquire important soft skills such as teamwork and communication. WBL helps students manage transitions from school to work, while for employers it offers a means of recruitment. School-mediated WBL engages and empowers students in ways that cannot be replicated by off-the-job training, and helps them gain career insights. More specifically in the case of vocational programmes, research has shown that it is easier to develop professional skills through work-based training than by transferring theoretical knowledge, learned exclusively at school, into practice. Student employment, pursued independently by students outside of school, also has benefits, in terms of soft skills, and eases the transition into employment (see (Musset, 2019[1]) for a review of the relevant literature).

This is specially the case in Australia

Analysis of data of OECD Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), found that workplaces are particularly sound learning environments in Australia. Compared to workplaces in other countries, jobs in Australia provide many learning and training opportunities, including for workers with low skills (OECD, 2017[5]). This constitutes a good basis for the future development of WBL as part of education and training programmes.

School-mediated WBL has benefits for the different stakeholders involved

Employers gain from school-mediated WBL …

From the employer's point of view, the benefits of WBL include the direct productive contribution of the student and also non-financial benefits like increased staff morale and the chance to enhance corporate reputation through being seen as contributing to the common good. However, these benefits are difficult to measure. In the case of placements within vocational programmes, WBL can be used strategically by employers to equip people with the skills that they need, particularly in areas where there are critical shortages. It gives them the chance to test out the student on placement as a potential future recruit and to promote careers within their organisation or sector (European Training Foundation, 2012[3]). Research in Australia, using case studies in the health and care professions, also suggests that WBL can encourage innovation in enterprises that offer placements (Hodge et al., 2017[6]).

... as does society as a whole

From a societal point of view, school-mediated WBL can be expected to improve the balance of skills supply and labour market demand, as signalled by employers' offer of work placements. This is especially in the case of school-based vocational programmes. Promoting WBL – and transferring the costs of some of the learning units from the educational institutions to companies, can also reduce public expenditure (e.g. reducing costs for VET schools of purchasing costly equipment) (European Training Foundation, 2012[3]). In the case of vocational programmes, employer willingness to offer work-based learning is an important indicator of their support for the associated programme of learning. These benefits to different parties are summarised in Table 1.

Table 1. Anticipated benefits of work-based learning

Point of view of	Potential benefits
Learner	Development of deep professional expertise. Development of transversal soft skills, including teamwork and communication skills. Informed career choices and career management skills; improved self-confidence. Facilitated full entry to the labour market though first work experiences.
Employer	Positive impact on supply of qualified labour. Bridged skills gaps through tailor made training. Positive effect on recruitment and retention. Improved productivity and performance.
General education programmes	Improved students' motivation. Tool to explore different career paths within career guidance
Vocational programmes	Improved quality and more attractive VET programmes. Enhanced relevance and responsiveness of VET. Positive effect on teaching staff competences and development. Improved co-operation between VET schools and employers
Society	Skilled labour force, which responds better to labour market needs. Positive contribution to youth employment. Cost sharing of VET between the state and employers. Enhanced employer engagement in education and training programmes Increased innovation and creativity. Potential for strengthened social inclusion and improved equity of opportunities.

Source: Adapted from European Commission (2013[7]), *Work-based Learning in Europe: Practices and Policy Pointers*, http://ec.europa.eu/dgs/education_culture/repository/education/policy/vocational-policy/doc/alliance/work-based-learning-in-europe_en.pdf.

There is relatively little evidence of the costs and benefits of WBL in school-based programmes

Although the theoretical benefits of WBL as part of apprenticeships are well described [see for example (OECD, 2018[4])], there is limited quantitative empirical research on the costs and benefits of WBL to employers when the WBL forms part of a school-based programme. The employer costs involved in offering shorter work placements (for both general education and vocational programmes) are different from those in apprenticeships, with a smaller administrative burden, usually no wage costs and fewer demands on the time of the firm's employees. Costs relate to the time of mentors or supervisors of training in the workplace. Costs to employers will vary according to the length of the programme, the amount of training provided, the level of the skills being taught, and the characteristics of participants (European Training Foundation, 2018[8]). Often data on work placements, their length, prevalence, and type of employer are lacking. There is a strong need for better research on the costs and benefits of WBL within upper secondary programmes.

Education in Australia

Education system varies between jurisdictions in Australia

Compulsory education in Australia starts at age five or six and ends at age 17 (except in Tasmania, where recent changes to the Education Act have required attendance until age 18). It is longer than the typical duration across the OECD (OECD, 2018[9]). Governance arrangements allow for variability between the secondary education systems in each of the six states and two territories in Australia, and even between the three educational sectors in each jurisdiction (government, Catholic and independent) (see Box.2). For example, some jurisdictions have external examinations and others use continuous assessments methods. Upper secondary school leaving examinations also vary. Although students in most jurisdictions complete six years of secondary school, students in some jurisdictions complete five.

Box.2. There are three educational sectors in Australia

Government schools provide free and secular education. Catholic schools charge relatively modest fees (sometimes waived for disadvantaged students). The independent school system on the other hand is diverse, and includes low-fee community schools and expensive elitist Anglican colleges. Access is determined individually by each school. All schools are funded by government, but to varying degrees. Larger schools located in urban areas provide a more extensive range of subjects than schools located in more rural areas.

Source: Chesters, J. and M. Haynes (2016[10]), "Reproducing social inequality within comprehensive school systems –The case of Australia" in *Models of secondary education and social inequality: an international comparison*.

Upper secondary schooling

Access is wide

Access to, and completion of, upper secondary education in Australia, as in other OECD countries, is wide. Upper secondary education is designed to lay the foundations for both the next levels of education and immediate participation in the labour market and society in general.

In Australia, like in other countries, students are staying in education longer, and most Australian students complete secondary education: in 2018, only 11% of 25-34 year-olds had attained less than upper secondary education, compared to 18% in 2008 (OECD, 2019[11]). Although higher education attainment confers multiple benefits for young people (in terms of skills and employment rates), it leads to a deferral of entry to the workforce (see Table 2). Being school students for a longer time has meant that young people experience a longer period of economic dependence and fewer opportunities to interact with a range of adults as work colleagues. This makes it more important for schooling systems to provide for diverse students, exploring means of making provision attractive to a wider range of students.

Table 2. Ending age of compulsory education

2018

Ending age	Country
14	Korea, Slovenia
14-15	Greece
15	Austria Czech Republic, Japan, Switzerland
16	Denmark, Estonia, Finland, France, Hungary, Iceland, Ireland, Italy, Latvia, Luxembourg, New Zealand, Norway, Poland, Slovak Republic, Spain, Sweden, United Kingdom
16-18	Canada, Netherlands
17	Australia, Israel, Mexico, Turkey, United States
18	Belgium, Chile, Germany, Portugal

Note: Education is compulsory until 18 in England (United Kingdom).
Source: OECD (2019[12]), *Education at a Glance 2018: OECD Indicators*, https://doi.org/10.1787/eag-2018-en

In Australia upper secondary school is comprehensive

Often in countries, students can choose between a general education and a vocational pathway. Within the latter, students can choose between a VET programme that is mostly school-based and others, in which most of the curriculum is delivered in the workplace. VET programmes prepare participants for direct entry into specific occupations. Successful completion of such programmes leads to a vocational or technical qualification that is relevant to the labour market. The shape that vocational programmes take, and their size, relates to the context of labour market regulation and the structure of the economy.[4] While in the past, students explicitly chose between an academic programme leading to university study or a vocational programmes directly leading to the labour market, the divide is less marked nowadays, and in most OECD countries, vocationally-oriented programmes are now also designed to prepare students for further study at the tertiary level. Equally, many learners enrolled in programme of general upper secondary education enter the labour market directly at the end of their schooling (OECD, 2018[13]; Musset, 2019[1]).

In Australia, it makes little sense to refer to a single education and training system, as there are important variations between jurisdictions, schools and even sometimes between individual students. Students more typically follow individualised programmes by choosing between different options across the spectrum of general and vocational education.[5] Schooling is, in most jurisdictions, comprehensive, although the structure of secondary education varies by jurisdiction. This means that there is no separate vocational pathway in upper secondary institutions and that students stay together in the same institutions, called, depending on the jurisdiction, colleges or senior secondary schools. Most jurisdictions have lower secondary and senior secondary schools in the same institution (except for the ACT and Tasmania).

The ACT and Tasmanian senior secondary systems remain flexible with course provision and offerings to meet the needs of an increasingly diverse student population. Students are

[4] Also whereas many countries have extensive vocational programmes at upper secondary level, other particularly English-speaking countries, tend to postpone such programmes to post secondary level (OECD, 2010[43]).

[5] Subjects can be of differing levels of difficulty. For example in Tasmania, students at the upper secondary level (Year 11 and 12) can choose from between some 145 subjects of general education (developed at the jurisdiction level) and 30 different vocational programmes (which are developed at the Commonwealth level).

able to mix general education and vocational courses, and work-based learning, all of which can contribute to their senior secondary certificate. This enables students to acquire a blend of skills, capabilities and knowledge. Students are able to pursue vocational qualifications and an Australian Tertiary Admissions Rank (ATAR – university pathway) simultaneously, and can be a model for other jurisdictions.

About 30% of students pursue some type of vocational learning (representing between a quarter and half of their coursework[6]). In principle, such modular upper secondary programmes should allow all young people to explore career options and gain useful job skills, giving students the choice to pursue different interests, while sustaining an emphasis on core academic skills. In practice, of course, it does not always work out like this – some students can end up with a mix of subjects that provide pathways towards neither further education nor employment.[7]

Vocational education and training at the upper secondary level in Australia

Vocational qualifications are national but programmes are determined locally

Vocational qualifications in Australia are defined at the national level, in particular apprenticeships – which caters mostly for adults – while secondary education, including school-based vocational programmes, are defined at the jurisdiction level. In Australia, vocational qualifications are carried out in partnership with registered training organisations (RTOs), with each state or territory using different models. In some states, secondary schools are RTOs providing the training or working in partnership with technical and further education (TAFE) institutions and/or private RTOs. In others, departments of education and archdioceses in the Catholic education sector are the RTOs. VET is also delivered to secondary students through SBATs (School-Based Apprenticeships and Traineeships) and ASBAs (Australian School-based Apprenticeships), through a combination of school, workplace and learning in an RTO. SBATs and ASBAs both include a component of paid employment (Clarke and Volkoff, 2012[14]).

Some of the vocational qualifications are primarily for adults but are offered to students in senior secondary

Vocational qualifications, nationally defined as part of training packages, are mostly focused at adults and delivered in TAFEs, although some senior secondary schools allow their students to pursue parts of these qualifications.

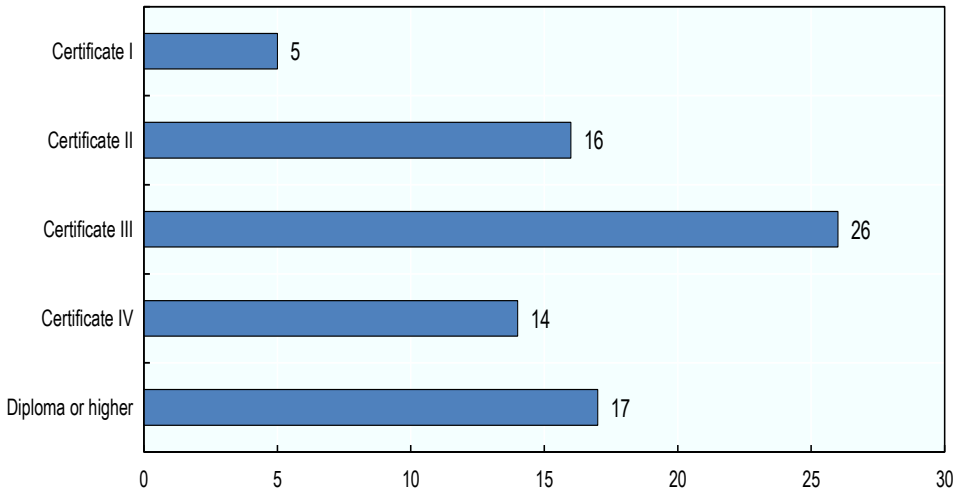
[6] Tasmania is currently putting in place "packages of learning", in which vocational and general education subjects are combined for students and presented as a coherent aligned curriculum offering inquiry-based and applied learning as pedagogy. Different fields include tourism and hospitality, architecture and construction, higher-level manufacturing and agriculture, and food and natural resources. They use also advisory groups from industry. Students can pursue structured periods of work-based learning, but they do not receive credits points that add to the Tasmanian Secondary Certificate (TSC). Similarly, they do not receive credit points for vocational options.

[7] Some studies from different countries show that students who come from more disadvantaged backgrounds choose less demanding or fewer subjects because they are more risk-adverse and/or lack the confidence to succeed. Differences in subjects, and in their difficulties, have significant consequences because often they form clear hierarchical sequence [see literature reviewed in (Musset, 2019[1])].

In 2017, there were 222 100 Australian students undertaking VET as part of their senior secondary certificate (excluding school-based apprentices). The Tourism, Travel and Hospitality Training Package was the most popular area of training, accounting for 15% of all enrolments in vocational qualifications (National Centre for Vocational Education Research, 2017[15]; NCVER, 2019[16]).

Figure 1. Students are enrolled in a variety of types of VET programmes in Australia

VET programme enrolments, by qualification level, 2016 (%)



Note: Certificate I (approximately 6 months) and II (one year) are preparatory/pre-vocational qualifications offered at the lower secondary level. Certificate II is the entry-level qualification for some occupations. Certificate III and IV (approximately one- four years) are offered at the upper secondary level. Certificate IV qualifications typically provide training for 'advanced trade occupations' or supervisory roles in the workplace. Advanced Skills and Higher Education articulation – Diploma (1-2 years), Advanced Diploma (2-3 years),- Graduate Certificate and Graduate Diploma (6-24 months) are offered at the tertiary level.
Source: Department of Employment, Skills, Small and Family Business (2018[17]), *Australian Jobs 2018*, https://www.employment.gov.au/news/australian-jobs-2018-now-available.

Senior secondary schools also develop their own vocational programmes

Jurisdictions can also offer some VET courses that are not part of the certificates, with course content that can be very different between jurisdictions, and even in some cases within jurisdictions. "VET in schools" in Australia was introduced in senior secondary school in the mid-1990s to retain less academic students in school and to prepare students for work and further training (Polidano and Tabasso, 2014[18]). *Currently* "VET in schools" programmes are highly integrated into the school curriculum, with over 95% of secondary schools offering VET subjects and around 40% of all upper secondary students undertaking at least one VET subject (NCVER, 2019[16]). Jurisdictions vary in Year 9 regarding the availability of VET by year of study (see Table 3).

Table 3. Vocational subjects are not available in all jurisdictions in Australia

VET availability by year group

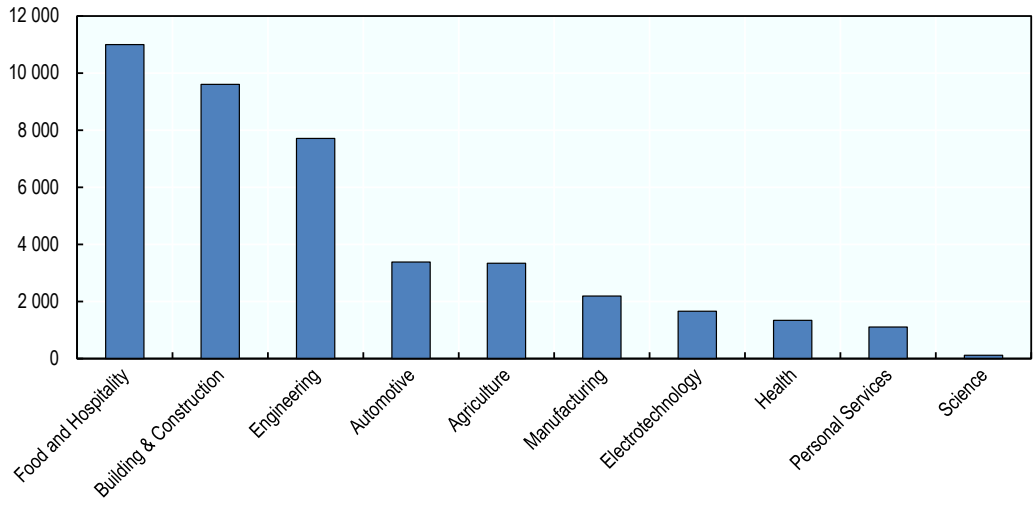
Year group	ACT	NSW	NT	QLD	SA	TAS	VIC	WA
Year 9	Yes	Yes	Yes	No	No	Yes*	No	No
Year 10	Yes	Yes	Yes	Yes	Yes	Yes*	Yes	Yes
Year 11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year 12	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

There have been efforts to promote the development of VET and trades in schools

An important trade training infrastructure programme ran from 2008 to 2016, to address skills shortages in traditional trades, leading to the construction of many new trade training centres. Currently there are about 510 Trade Training Centres, with cluster arrangements involving about 1 200 schools (see Figure 2 with the student enrolment numbers).

Figure 2. Students enrolled in Trade Training Centres

2016 national TTC/TSC enrolments by broad field of study



Source: Adapted from Australian Government Department of Education and Training (2018[19]), *2016 Trade Training Centres Progress Report.*

Tertiary education

University entrance is organised at the national level

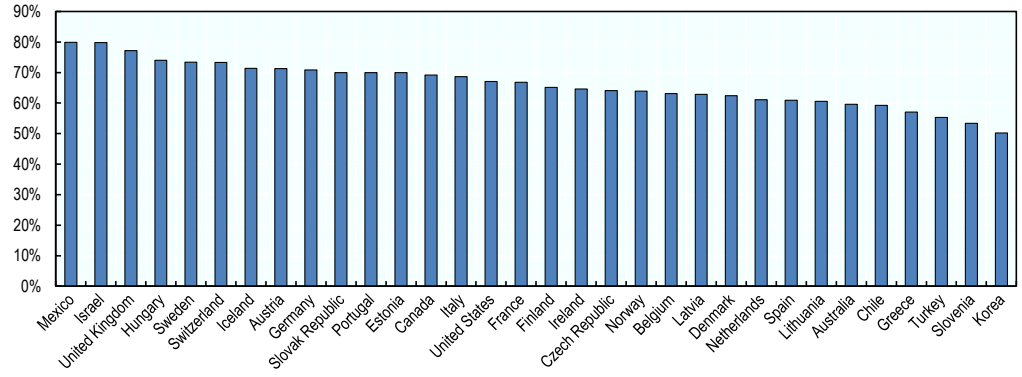
Entrance to university is organised at the national level in Australia, but requirements for ATAR varies from state to state. For example, there is no requirement to complete English in Tasmania. There is also no requirement to undertake five subjects in Year 12. Generally speaking, university entry in Australia is dictated by a student's university entry score, which is based on academic performance in the last year of school. The university entry score is the sum of the best three subjects (after weighting to account for differences in difficulty) in the final year of study plus the score for English, which is compulsory. VET subjects may or may not be included in the top three subjects depending on the state and the subject (Polidano and Tabasso, 2014[18]).

Many young people may enter the labour market after secondary education

In Australia, 60% of students (20-24 years old) do not enter tertiary education, while the OECD average is 56% (see Figure 3), and of those who enter, many do not finish that level. This may mean that many students enter the labour market without having acquired any type of skills specific to employment.

Figure 3. Many young people do not enter tertiary education

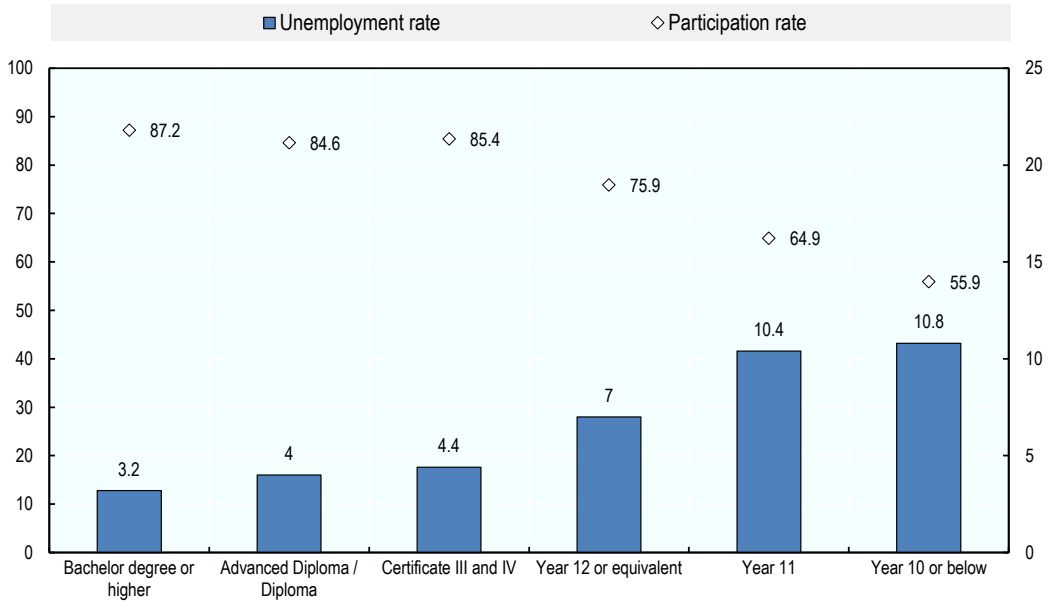
Share of individuals 20-24 years-old not enrolling in tertiary education (ISCED from 5 to 8)



Source: OECD (2019[20]), *OECD.Stat*, https://stats.oecd.org.

Figure 4. Adults with higher levels of education do better in the labour market in Australia

Labour market outcomes by highest level of educational attainment (2016) (in percentage)



Source: Department of Employment, Skills, Small and Family Business (2018[17]), *Australian Jobs 2018*, https://www.employment.gov.au/news/australian-jobs-2018-now-available.

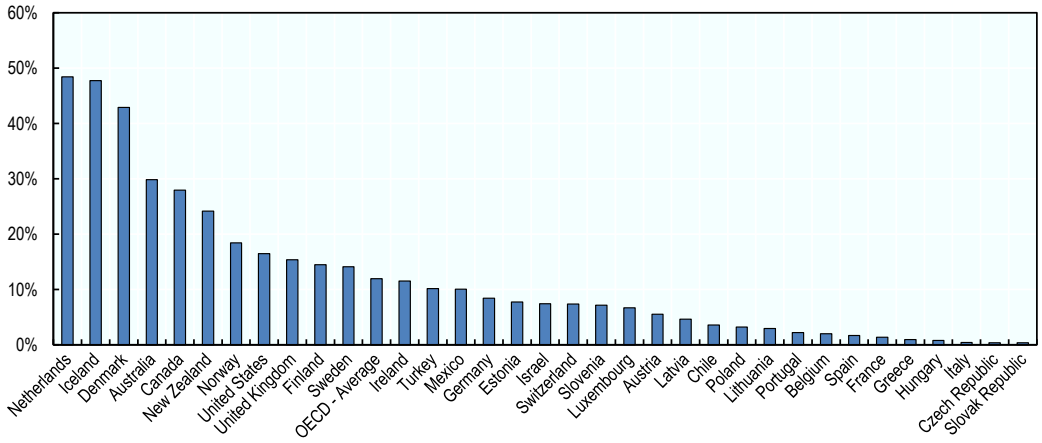
Many young Australians combine education and training with employment

Many students work while studying

One of the distinctive characteristics of Australia's secondary education system is the significant proportion of students working part time alongside their schooling. Variation is considerable between occasional summer employment and regular part-time work throughout the school year. There are some methodological difficulties in estimating, but the proportions of school students working in Australia are estimated as at between 30% and 60% (Anlezark and Lim, 2011[21]). According to comparative data collected by the OECD, in Australia, one-third of students do part-time work while studying full-time in upper secondary education (compared to an OECD average of 12%) (see Figure.5).

Figure.5. Some upper secondary students are employed

Participation rates of 15-19 year-old students in employment (2019)



Note: Apprentices have been excluded.
Source: OECD (2019[22]), Transition from school to work. Indicator on the share of population by education and labour force status, https://stats.oecd.org/Index.aspx?DataSetCode=EAG_TRANS#.

Student employment enables the acquisition of general and transferable skills such as work values, communication skills, and time management. It also provides students with a preview into possible futures, thereby motivating them to work harder in school in order to achieve career goals (Neyt et al., 2018[23]). However, student jobs rarely relate to intentional career pathways. Students make decisions on whether or not to work, based on the availability of work, their desire for financial independence, their ability to travel to the work location and whether or not their parents want them to work (Anlezark and Lim, 2011[21]).

However, working while studying can have a negative effect on student outcomes, an effect that increases with the number of hours worked. For example, working more than five hours a week in Year 9 has been observed to have a detrimental effect on Year 12 completion (Vickers, Lamb and Hinkley, 2003[24]). It may be that hours of study are foregone by working, students may be distracted by work, or too tired to concentrate properly at school

(Anlezark and Lim, 2011[21])[8]. It is also the intensity of the work that can have an impact on school performance – educational penalties increase with the number of hours worked (Staff and Mortimer, 2007[25]).

Some students are better able to balance the demands of school and work

Young people from more advantaged backgrounds are more likely than their less advantaged counterparts to work while studying in upper secondary education. However, they work for fewer hours on average than more disadvantaged students. In contrast, youth from more disadvantaged backgrounds and those with poorer grades and lower educational aspirations, if they do work, are more likely to work longer hours when at school and have poorer educational outcomes (Shanahan and Flaherty, 2001[26]). On the one hand, such a decision could be influenced by their financial needs, as well as by their poor school performance. On the other hand, it could be that their poor school performance is the result of longer hours worked. Students who come from more advantaged background have both better educational outcomes, and a higher likelihood of finding a job.

While unemployment was low in Australia before the 2020 crisis, it remained higher for young people

Labour market conditions had strengthened considerably over recent years in Australia before the 2020 COVID-19 health crisis. Against this strong background, the youth unemployment rate was 12% in 2018, although it remains more than double the rate recorded for the total population (Department of Employment, Skills, Small and Family Business, 2018[17]). The share of youth (aged 20-24 years old) neither employed nor in education or training (NEETs) stood at around 12% in 2017, which compares favourably to the OECD average of 15% (OECD, 2019[27]). Workers with vocational qualifications generally have better employment outcomes than those who have completed only upper secondary education or below (see Figure 4).

Policy pointers

Under certain conditions, continue allowing for part-time work

Working part time while in upper secondary education is beneficial under certain conditions and for certain student groups. Australian jurisdictions and schools should continue allowing for part-time work. Labour market regulations should make sure that the work is not strenuous (both physically and in terms of working hours), and pay special attention to the working conditions. Part-time work that relates to programmes of school study can be especially valuable to young people.

[8] An international review of the literature on studies on student work during secondary education found that 55% of them reported a negative effect on student achievement. Further, four studies do not find a significant relationship between student employment and educational attainment. Additionally, nine studies find mixed effects (including two reporting negative and positive results), depending on the educational outcome, particular student work engagement, or subset of students considered (Neyt et al., 2018[23]).

Collect data on part-time employment –undertaken independently by students

There is often little information collected by jurisdictions on which and how many students participate in independent employment and at what type of workplace. Evidence can also be collected on how many hours students work, and in which types of work, in order to set recommendations that are more precise for specific groups, and settings.

WBL in vocational programmes in Australia

This section examines how WBL is integrated in vocational programmes and highlights some policy pointers for the use of WBL

WBL is well integrated in the Australian School-based Apprenticeship programme

Through "school-based apprenticeships", students in year 10-12 typically spend one day a week (between 7.5 and 15 hours per week) with an employer and the rest of the week at school. It puts them on a path that still allows them to gain entrance to universities if they wish to. Students undertake a Certificate II or III level (which are at the upper secondary level, see Figure 1), which are national qualifications, but usually they need to continue after Year 12 to finish it completely. This model was developed quite recently as an alternative to apprenticeships, which in Australia mainly cater to adults and do not have a school-based component, to make vocational provision more attractive to young people. The OECD review team heard that the model is attractive to students and employers, as shown by its growth initially from relatively low levels. In 2017, there were 20 000 school-based apprentices and trainees, representing 8% of all VET in schools students and an increase of 16% when compared with 2016 (National Centre for Vocational Education Research, 2017[15]).

However, some issues remain as identified during the OECD team field visit: there is sometimes a lack of connection between the learning at work, and learning in the school, where students study academic subjects in preparation for the Senior Secondary Certificate of Education and ATAR. The scheme is very demanding and does not necessarily fit the needs of students that are less academically inclined.

In other school-based VET programmes, the provision of WBL is more uneven

In many countries, school-based vocational programmes include a mandatory work placement with employers. Placements are structured in different ways and are typically between 3 months and 6 months – representing about 20% of the full VET programme [the use of WBL within different school-based programmes is explained in (Musset, 2019[1])].

In Australia, WBL is mandatory in some jurisdictions. In Western Australia for example, there are mandatory work placement requirements for all students undertaking their VET Industry Specific Courses. The Curriculum Authority (the School Curriculum and Standards Authority) also specifies the number of hours expected to be undertaken during the placements. Work placement hours contribute towards the student's WACE (Western Australia Certificate of Education): 110-164 hours of workplace learning are for example equivalent to two WACE Course Unit Credits. In New South Wales too, students that follow elective VET courses for Years 9 or 10 have a mandatory work placement component, and the number of hours depend on the year the student is enrolled in.

Elsewhere in Australia in school-based vocational programmes, WBL is optional, and the use of WBL varies between jurisdictions and often also between schools themselves. In South Australia, students can be involved in work placements in two ways: Structured Workplace Learning (SWL) and Work Experience. Essentially, SWL is workplace learning that occurs as part of a VET course and occurs in either a real or simulated workplace. SWL contributes to an assessment of competency and achievement of outcomes relevant to a nationally recognised VET qualification. It should not exceed 40 days or 300 hours per year. Some VET courses run or facilitated by schools, require mandatory completion of Structured Workplace Learning placements, while others have SWL as a recommendation and it is not compulsory.

Since no systematic data are collected on the participation in secondary schools in VET options, there is also no data on the use of WBL. This point is developed later.

School-based VET programmes with a structured WBL component have good outcomes

In Australia, employment outcomes for VET graduates are relatively strong. In 2017, 78% of VET graduates were employed six months after completing their training, with important variation between the fields of study. (Department of Employment, Skills, Small and Family Business, 2018[17]). Very interestingly, short, structured workplace learning components in classroom-based upper secondary VET courses improve student outcomes in Australia (controlling for self-selection bias using a rich dataset) (Polidano and Tabasso, 2014[18]). Evidence shows that taking an upper secondary VET subject improves the chances of school completion and the chance of successful transition from school to work. Both the benefits to school completion and initial labour market success are greater for classroom-based VET courses that incorporate a WBL component.

The OECD recommends WBL to be mandatory in VET programmes

The OECD recommends that WBL be made mandatory within all vocational programmes [see (OECD, 2014[28])]. It shifts the whole mind-set of training and education providers, so that partnership with employers becomes essential, rather than an optional extra.

In the main, employers will be interested in offering work placements in the context of vocational programmes that reflect their business needs. This means that the programmes in which WBL is integrated need to reflect employers' labour market needs. WBL allows the content of the programmes to be more relevant for the labour market. Underlying the issue of work placements, qualifications and curricula therefore need to be designed with employers to meet their needs. Sometimes this is a challenge because programmes are designed to be marketed to students, rather than to employers (OECD, 2014[28]). Results from the OECD survey of employers in Australia suggest that collaboration between employers and training providers needs to be strengthened, because local employers and industry experts are seldom involved in defining the current training packages. Consequently, survey respondents felt that this can lead to programmes that are not necessarily relevant and/or have students leave pre-apprenticeship programmes without relevant experience and knowledge (OECD, 2019[29]).

Promoting WBL within vocational programmes in senior secondary schools could be beneficial

While a senior secondary school model in which extensive WBL is provided to most students is not necessarily a desirable route for Australia as a whole, some students,[9] in particular those who will enter the labour market directly after secondary education could benefit from more diversified options for workplace exposure. The integration of more WBL in vocational options would help them to become more relevant for the labour market. The Australian Department of the Prime Minister and Cabinet released in April 2019 a review on how to strengthen Australia's VET system (see Box.3).

There is momentum in Australia to increase the use of WBL

Employers are concerned about skills shortages, with about 34% of Australian employers in 2018 finding it challenging to fill in vacancies, particularly for skilled trade positions (Manpower, 2018[30]). Among the reasons for talent shortages, Australian employers cite the lack of applicants (25%), the lack of required hard skills (21%) and the lack of experience (19%) as the main reasons for difficulty in filling vacancies in 2018 (Manpower, 2018[30]). Another survey, undertaken by the OECD and the Australian Government Department of Education and Training, found that employers reported facing shortages in literacy and numeracy skills especially[10] (OECD, 2019[29]). Employers are concerned that the training packages and associated certificate programmes put too much focus on job-specific skills.

Recent discussions in Australia around reforming the training packages have highlighted the need for learners to acquire "future work skills" (NCVER, 2019[16]). Future work skills are those required to adapt to ongoing economic changes and changes in the nature of work; enabling young people to quickly gain new skills, change jobs or deal with changes within an existing job (NCVER, 2019[16]).

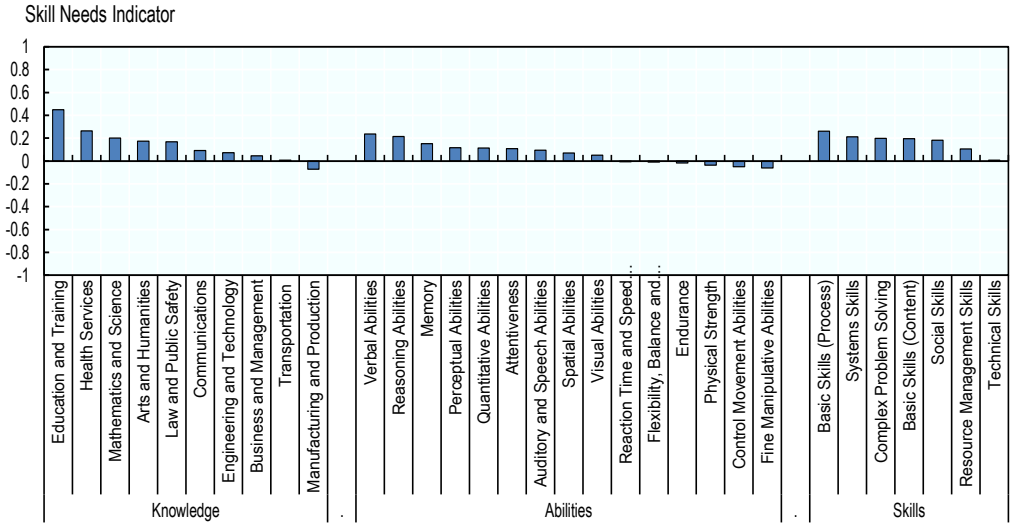
Employers' needs for "future work skills" argues for the strengthening of WBL within school programmes – as a means for students to gain from the work exposure that they once achieved through student jobs, and to realise the benefits of WBL. Secondary school students can develop and apply these skills through WBL. The promotion of WBL and its increased use can help address the issue of lack of experience, whereas participation in vocational programmes in itself can provide people with specific job skills.

[9] The characteristics of the target group might vary across the country and patterns of access to postsecondary education.

[10] The Survey of Adult Skills (PIAAC) reflected that numeracy proficiency among adults is a challenge, especially for women. A relatively large gap between the best and the worst performers both in literacy and numeracy may indicate large variations in basic skills distribution across regions, institutions or fields of study (OECD, 2017[5]). But recent reforms, to the Training Package, resulted in the inclusion of adult language, literacy and numeracy skills in the core units for the Certificate IV 'Training and Assessment' qualification (Sila and Hemmings, 2019[44]).

Figure 6. Many skills are in shortage in Australia

Skills shortages (+) and surpluses (-), Australia (2016)



Note: Positive values indicate shortages while negative values indicate surpluses. Basic Skills (Process) refer to those skills that contribute to the more rapid acquisition of knowledge and skill across a variety of domains (e.g. critical thinking, active learning, etc.). Basic Skills (Content) refer to foundational structures needed to work with and acquire more specific skills in a variety of domains (e.g. reading comprehension, listening, writing, speaking, basic maths and science).
Source: OECD Skills for Jobs database 2017 in OECD (2018[31]), *Getting Skills Right: Australia*, https://dx.doi.org/10.1787/9789264303539-en.

In an effort to better understand skill needs and avoid skills imbalances, a National Skills Commission (NSC) was recently set up to analyse Australia's labour market, future workforce changes and current and emerging skills needs. Using this information, the NSC provides advice on: efficient prices for VET courses; the public and private return on government investment in VET qualifications; the performance of Australia's system for providing VET; issues affecting labour markets; and opportunities to improve access, skills development and choice for regional, rural and remote Australia in relation to VET. The NSC planned work with policy makers, influencers, educators and students in the VET sector to provide clear advice on pricing and emerging skills needs (Australian Government, 2020[32]).

The 2020 global health and economic crisis will impact the economy and the VET system

The global 2020 COVID-19 crisis imposed sudden and unprecedented pressures on jurisdictions and industries, and VET systems in Australia, as in other countries, are impacted. In the short term, the VET programmes and institutions were impacted in terms of how they provide VET in the context of social distancing and travel restrictions, but also in terms of how they are being forced to anticipate and adapt to what could very well be a significantly changed labour market in the coming months and years. It may appear that supply is abundant in a time of layoffs and economic downfall, but as the economy starts to recover shortages of skilled workers will likely become apparent, thereby hindering the

recovery process. In the mid-term, Australia can consider the further promotion of vocational programmes integrating WBL, depending on the recovery from the crisis and the sectors in which there will be skills shortages.

In light of the COVID-19 crisis, the Australian government has put in place several measures to ensure the continuity of VET and to make the VET system more resilient for the future. For example, a wage subsidy scheme was put in place to support ongoing and new apprenticeships. The wage subsidy scheme is part of a broader JobTrainer package that aims to give hundreds of thousands of Australians access to new skills by retraining and upskilling them into sectors with job opportunities, as the economy recovers from COVID-19. The package also includes a JobTrainer Fund that will support the creation of additional short and long courses for school leavers and job seekers (Prime Minister of Australia, 2020[33]). In the context of the setup of this fund, states and territories have signed up to a new Heads of Agreement for Skills Reform, which sets out immediate reforms to improve the VET sector and an approach and priorities for developing a new National Skills Agreement. The priorities in the Agreement aimed at ensuring the VET system was equipping Australians with the skills they needed for emerging jobs, including by strengthening VET pathways for secondary school students and improving the quality and vocational relevance of VET in schools, and by promoting apprenticeships and other employment-based training (Department of the Prime Minister and Cabinet, 2020[34]).

Box.3. Recent initiatives are pushing for more WBL

In April 2019, the Department of the Prime Minister and Cabinet published an "expert review" of Australia's VET System. The review argues that there needs to be a significant upgrade to the architecture of the VET sector so it can successfully deliver the skills needed for Australia's future. It recommend a six-point plan with 71 recommendations for change and a roadmap for achieving it.

- Strengthening quality assurance
- Speeding up qualification development
- Simpler funding and skills matching
- Better careers information
- Clearer secondary school pathways
- Greater access for disadvantaged Australians.

Source: Department of the Prime Minister and Cabinet (2019[35]), *Strengthening Skills: Expert Review of Australia's Vocational Education and Training System*, https://www.pmc.gov.au/resource-centre/domestic-policy/vet-review/strengthening-skills-expert-review-australias-vocational-education-and-training-system

Getting employers on board is essential

One important key precondition of effective WBL is local partnerships between secondary schools and the employers that provide placements. Such partnerships facilitate the initial offer of work placements, and the subsequent exchanges between schools and training employers. Creating these types of partnerships may involve the creation of local employer

networks and engage professional associations or sector bodies that represent a group of employers. In Australia, local industry-school partnerships have been increasingly recognised as a means of preparing students for employment through access to resources that are beyond the financial capacity of schools (Flynn, Pillay and Watters, 2014[36]). In Victoria, there are 31 Local Learning and Employment Networks (LLENs) funded to facilitate students' access to work, tailored to local priorities and employment opportunities. In New South Wales, a host workplaces platform is co-ordinated across the state by a network of Work Placement Service Providers (WPSPs), organised by the NSW Department of Education, Catholic Schools NSW and the Association of Independent Schools of NSW. WPSPs support and co-ordinate mandatory work placements for student undertaking VET courses. They work with schools, TAFE colleges and employers to co-ordinate those work placements. The responsibility for actually finding a placement may vary from school to school, and depends on the nature of the learning programme (Polesel et al., 2016[37]).

Flexibility facilitates engagement with employers

To improve the engagement with employers, Education Services Australia (2014[38]) recommended a supportive environment that minimises costs and red tape, and facilitates innovation and local flexibility. A survey of secondary schools in Australia, found that two different elements allow schools to integrate WBL sequences into their programmes: flexibility and access to evidence about what works. Interestingly, the study also found that businesses were more likely to see the mutual benefits of providing work placements and engaging with students if they were given a greater role in the schools' decision making regarding the organisation of the programmes (Polesel et al., 2016[37]). This confirms that programme design and demand – in relation to both general and especially vocational courses of study – which schools select influences the prospect of forming successful partnerships with industry (European Training Foundation, 2018[8]).

WBL in general education in Australia

This section examines how WBL is integrated in general education programmes and highlights some policy pointers for its use.

WBL is integrated in different ways in general education across jurisdictions

Work placements, and work exposure, can help prepare young people to make education and training decisions regarding their future.[11] While traditionally secondary education did not provide many opportunities for WBL, in recent years, it has been introduced, and it is now an option in many schools and jurisdictions in Australia. Students in Australia when choosing a personalised set of subjects amongst many, can pick between varying forms of WBL – such as "work experience" or "internship". In the Australian Capital Territory, for example, students can gain credits in "work experience" by pursuing a placement of two weeks per semester in the two last years of senior secondary school. Similarly, in

[11] This is in addition to the career education provided in schools themselves, such as speaking to a career counsellor (Musset and Mytna Kurekova, 2018[46]) or browsing through career information websites such as MyFuture (www.myfuture.edu.au).

Tasmania, students can choose an elective course called Learning through Internship with a placement of a minimum 80 hours, but it does not contribute points to the Tasmanian Certificate of Education (TCE), the qualification marking the end of secondary examination.[12] In Queensland, students can undertake different types of Work Experience–-Work Sampling or Structured Work Placement (SWP), which do not allow students to gain credits for the Queensland Certificate of Education. In South Australia, students can do short-term industry placements, which aim to help career exploration and enhance students' understanding of the work environment. Work experience guidelines stipulate that students must not exceed 40 days per year (300hrs) on work experience or be placed in the same occupational area, with the same workplace provider, more than once per year, and these placements bear credits. The OECD review team was told by employer representatives and education providers that students are not well informed about labour market opportunities and the different pathways. Australian students value work placements, and found that it gave them new information on which to base their decisions for the future (Smith, Dalton and Dolheguy, 2004[39]).

Ensuring the quality of placements is important

WBL is purposeful in that it is meant to raise the interest of young people and maintain and encourage further engagement in the labour market. Inappropriate placements, or placement for placement's sake may, in fact, hinder this goal. Placement need to be linked to quality assurance mechanisms.

To ensure that students really learn, while leaving enough flexibility to ensure employers are not discouraged from offering placements by overly strict regulation, can be tricky (Musset, 2019[1]). Effectively designed measures can guide employers through the task of managing a trainee, so that the employer finds the task less onerous, and the trainee benefits from a better-structured placement.

Placements tend to work best when they are credit bearing, so that work-based and school-based learning effectively complement each other (Musset, 2019[1]). In Victoria, students can integrate on-the-job experiences with their secondary study, and gain credits towards their VCE (Victorian Certificate of Education) or VCAL (Victorian Certificate of Applied Learning). In South Australia, students can do short-term industry placements, bearing credits, which aim to help career exploration and enhance students' understanding of the work environment. Such placements follow guidelines and cannot exceed 40 days per year (300hrs). In addition, well-designed quality assurance mechanisms can effectively assist employers with the tasks of managing a trainee in a less onerous manner, while ensuring that the student benefits from a quality placement. In the Australian Capital Territory, students receive credit points for both vocational and WBL opportunities. The OECD encourages Australia to make WBL credit-bearing systematically.

[12] However, in Years 11 and 12, courses of a vocational learning nature may or may not incorporate WBL, but do contribute to the VCE.

Some students would benefit from more school-mediated WBL

In Australia as elsewhere, automation may led to a further decline of student jobs[13] (Nedelkoska and Quintini, 2018[40]) and associated concerns about the decline of student part-time employment. But given the benefits of WBL, in some cases, schools and jurisdictions could target certain students for access to school-mediated WBL. Looking at the trajectories of upper secondary VET students five years after completion, using longitudinal data, Misko, Chew and Korbel (2020[41]) found that students who benefited from substantial WBL within their school-based VET programmes were among the most likely to be employed in a full-time and permanent job five years later. These students were also more likely to be employed in an occupation relevant to their field of study, compared to students who did not undertake a substantial WBL within their VET studies. The characteristics of the target group might vary across the country and patterns of employment participation. This group could include, for example, students who have never had workplace exposure and/or students who do not intend to pursue post-secondary education.

Information about student placements can be collect to inform future policy development

Although it seems that most jurisdictions in Australia give secondary students the opportunity to engage in WBL, there seems to be little information collected on how many students participate in such opportunities, and at which type of work places.

For European Union countries, the Labour Force Survey (EU-LFS) and its 2016 module on students' participation in WBL [see (Eurostat, 2016[42])] show that over half of general education upper secondary graduates and almost one-third of vocational upper secondary graduates have no work experience whatsoever, whether paid or unpaid, WBL or independent. There are important differences between countries. Data also suggest that learners who received WBL are less likely to be unemployed than those who did not, or who worked independently in a job unrelated to their training programme while studying.[14]

Australia could consider systematically collecting similar information, to inform the development of future practices and policies. The collection of data on the socio-economic background of students and other background characteristics such as gender and migrant background would allow policy makers and practitioners to understand which subgroups should be targeted. Destinations surveys of graduate leavers are usually considered an effective and simple tool for establishing whether upper secondary students participated in WBL, and in which field, as well as whether they are pursuing further study and if they are unemployed or not in the labour market. A survey can also ask graduates what they thought of their placement. In this way such surveys also become a tool to monitor quality through outcomes (OECD, 2010[43]).

[13] But an important caveat to bear in mind is that young people are better skilled than their older counterparts so they may find it easier to adapt to new jobs, including those created as a result of the introduction of new technologies (Nedelkoska and Quintini, 2018[40]).

[14] Without controlling for background characteristics – socio-economic status in particular – it is not possible to establish a direct link between participation in WBL – and future outcomes.

Overcoming challenges in the implementation of WBL in schools

The following pointers are developed in full in the working paper *Improving Work-based Learning in Schools* (Musset, 2019[1]), and although are not targeted specifically for Australia, they are of relevance.

Engage employers

One of the main barriers to effective WBL is that employers are reluctant to offer work placements. Employer reluctance often stems from two sources: one is that they find it too burdensome to take on trainees, the other more importantly is that they do not believe that they will benefit significantly from participation.

- Intermediary organisations and local partnerships can help enterprises engage in WBL, making it easy to understand what is expected of them, connect learners with placements and reducing administrative burdens.
- Work placements should deliver benefits to employers - action to increase the productivity of trainees will make placements more attractive.
- Engaging employers and their representatives in the design of programmes which include WBL helps give confidence that participation will be beneficial to them.
- Make sure that employers are aware of how they can engage through communication and initiatives to involve them more broadly in education provision.

Promote equitable access for students

If students have to find their own work placements, then learners from more advantaged backgrounds can expect to have access to opportunities that are more enticing, through their parents' professional networks for example.

- Take into account that some students face extra barriers and give them extra support, allowing open competition for work placements and using intermediary bodies to mediate relations between schools and employers.
- Collect and review data about students and their placements.
- Ensure that students who need it, receive additional preparation in advance of a placement and consider options such as group placements.

Connect learning at school and at work

WBL complements vocational theory and general education. Work-based learning and classroom-based learning should not be seen as separate.

- Accredit employers offering placements.
- Make sure that workplace supervisors are well prepared by providing training and guidance and that they provide feedback to students.
- Design measures to link the school and workplace, through information and communication technology (ICT) tools and teacher professional development.

Structure placements

Longer periods of WBL are seen as more beneficial both by students (because they learn more) and by employers (because once trainees have had some experience they can make a more productive contribution). Integrating periods of WBL throughout the whole duration of a vocational programme allows students to learn both about work, confirming their career ambitions, and learn through work, developing the knowledge, skills and competencies they will need in employment. Substantive placements that take place at the end of a programme of learning are likely to be more attractive to an employer. Students will be older, more mature and better prepared through classroom study to make a productive contribution. Timing placements for the end of a programme also increases opportunities for recruitment.

- Consideration should be given to offering substantive placements towards the end of the programmes, when learners are more skilled.
- Take into account that block placements are easier to organise then ones that are less intensive.

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