Work-based learning and work-integrated learning: fostering engagement with employers

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Work-based learning and the inclusion of the world of work into tertiary students' learning lie at the heart of the Australian vocational education and training (VET) system. Traditionally this has been through apprenticeships and traineeships, which have a strong focus on 'on-the-job' training, but also through 'work-oriented' institutional training. However, an increased emphasis on work-integrated learning in university education is emerging.

Work-integrated learning, with its emphasis on intentionally integrating students' experiences in a work setting into their educational programs, has been evolving and growing in prominence. This was evident with the introduction of the National Work Integrated Learning Strategy in 2015, a partnership between universities and industry aimed at expanding work-integrated learning and strengthening engagement with employers. Despite the strong emphasis of work-based learning in post-secondary education, both VET providers and universities face challenges when it comes to engaging with industry and employers in these educational provisions.

This paper summarises the key features of work-based learning and work-integrated learning and discusses how engagement with industry and employers can be fostered and what the two sectors can learn from each other. It draws on the vast literature on work-based learning and work-integrated learning and provides an extensive bibliography and resource list.

HIGHLIGHTS

CONTENTS

- Work-based learning is learning that occurs in a work environment, through participation in work practice and process, and is integral to vocational education and training.

- Work-integrated learning at university is learning that comprises a range of programs and activities in which the theory of the learning is intentionally integrated with the practice of work through specifically designed curriculum, pedagogic practices and student engagement.

- The two concepts in the two education sectors have similarities and differences, but irrespective of the sector, integrating the world of work into education and training is becoming increasingly popular.

- Both work-based and work-integrated learning require the involvement of employers and industry, and both sectors face challenges engaging with employers.

- The keys to successful engagement in either approach include clear information, ongoing communication, flexibility with approaches, committed and skilled teachers who support students, engaged students, the involvement of intermediary organisations to organise and facilitate activities, and the commitment of business and education leaders to drive work-based learning and work-integrated learning in their communities and companies.

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WHAT IS WORK-BASED AND WORK-INTEGRATED LEARNING?

Work-based learning in VET

Work-based learning (WBL) in vocational education and training is learning that occurs in real work environments through participation in authentic work activities and interactions. Work-based learning is a central tenet of VET, because it emphasises learning through practice in the workplace.

Work-based learning is embedded in the curriculum and can involve deliberate engagement with those experiences for learning purposes and the formal recognition of the competencies achieved through those experiences.

There are several different approaches to work-based learning in VET. In some models, the learner is an employee who is located in the workplace more than in the classroom, which contrasts with other models where learners are primarily students in education and training providers, with only some time spent in the workplace or undertaking work-related projects. Types of work-based learning include:

- *Apprenticeships and traineeships* (including pre-apprenticeship programs) are a well-known form of work-based learning. Indeed, they are often considered the 'prototype' for work-based learning. Apprenticeships are high-intensity and high-frequency forms of work-based learning, such that the learner spends most of their time in the workplace, where they acquire most of their skills. Most apprenticeships and traineeships are generally two to four years in length.

- *Simulation* provides experiential learning experiences, whereby students are engaged in analysis and decision-making in real work situations in an educational setting. Simulations are most effective and beneficial to students when they are considered to be a 'realistic' experience of the workplace or the commercial environment. In VET, simulated work environments can include:
  - trading or simulated businesses operated by the training provider (such as TAFE restaurants for hospitality students)
  - campus-based training sites (such as workshops for trade students, greenhouses for horticulture students, and salons for hairdressing students)
  - technology-assisted simulation (such as train and flight simulators)
  - structured role play of work situations (such as the use of mannequins for nursing students).

- *Placements* immerse students into a workplace for a period of time and can be known by other terms, for example, service learning. Placements, which can vary in length, can be a requirement of the course or be optional. For example, a 120-hour minimum work requirement is now compulsory for certificate III and IV courses in aged care.

Work-based learning **provides students with opportunities to develop practical and conceptual skills related to their training and to apply them in workplace settings.**

> *Work-integrated learning* can comprise a variety of curriculum and teaching practices and programs that link students with the application of their chosen occupation.

Work-integrated learning at university

Work-integrated learning (WIL) at university aims to intentionally integrate work and educational experiences. Work-integrated learning integrates the theory of the learning with the practice of work. This is done through specifically designed curriculum, teaching activities and student engagement and it should be purposefully linked to curriculum and assessment. As it is part of the education process, teachers play a key role in organising and enacting the learning, and their skills and capacities are vital in this process.

Like work-based learning in VET, work-integrated learning at university can occur in a variety of ways, from minimal engagement and ad hoc arrangements, to full integration into the degree, which is both assessed and accredited. At university, most work-integrated learning occurs at undergraduate degree levels, but it can also occur at postgraduate levels. Forms of work-integrated learning can include:

- *Placements*, which can include clinical placements, fieldwork, practicums, internships, cadetships etc. immerse students into a workplace for a period of time. Some placements are integrated into the curriculum and form part of the formal assessment; others are informal arrangements, but potentially a requirement of the course. They can vary in length from six- or 12-month semester-based placements and vacation placements of two to three months duration, to shorter experiences of one to three weeks. Placements can be full-time or part-time.

- *Simulations* at university, as with simulations in VET, are experiential learning experiences that engage students in analysis and decision-making in real work situations in an educational setting. Simulations are most effective and beneficial to students when they are considered to be a realistic experience of the workplace or the commercial environment.

- *Industry projects* are projects which typically involve the types of work undertaken in the workplace and can include the development of a product or a research project. Projects can be undertaken by individual learners or a team. For these types of programs to be successful, students should be well matched with industry partner projects to ensure that both parties have a meaningful experience. Projects typically run for a semester and usually form part of the coursework and assessment.

What are the similarities and differences between work-based learning and work-integrated learning?

There are a number of similarities and differences between work-based learning in VET and work-integrated learning at university. Work-based learning is generally embedded in the entire learning curriculum; that is,

work-based learning can occur mainly in the workplace (such as the case with apprenticeships or traineeships) or it can form a major part of the institutional learning (through simulation or practical activities and work experience requirements). Traditionally, the connection to the workplace and the work-based nature of training has been a fundamental component of the VET system. But this emphasis is now becoming an important element in university education.

At university, work-integrated learning can be wholly embedded in some programs, but in other courses it is only one part of the learning experience, generally as a discrete project or subject. While the embedded nature of work-integrated learning importantly means that it is much more than work experience, it is often viewed as a distinct component of the learning experience at university, rather than an intrinsic part of the whole learning experience, although this varies by discipline. Historically, work-integrated learning has been more prevalent in professional degree disciplines (such as teaching, medicine, law and engineering), where there are strong occupational links. There is a push to increase its uptake in other disciplines; however, the resource implications are significant, as it takes a great deal of time and effort on the part of teachers and education providers to develop partnerships with employers, and broker and facilitate successful work-integrated learning opportunities for students.

Some of the approaches in VET and university, such as simulation and placements, are the same, whereas other approaches, such as apprenticeships and traineeships in VET and industry projects at university, are unique to each sector.

The extent to which work-based learning in VET and work-integrated education at university in a range of different disciplines and fields of education are being enacted in Australia is unclear, as information is not always collected systematically in administrative data collections or through student surveys. Neither VET nor the university sector have a comprehensive stocktake of the work-based provisions and work-integrated learning available in different disciplines and among different education and training providers, possibly because they occur in diverse ways and forms and are not easily numerated or compared.

Despite this lack of quantifiable information, extensive research has been conducted into some types of work-based and work-integrated learning in certain disciplines and fields of study. The research looks at the theory and pedagogy of learning in the workplace, different approaches to work-based and work-integrated learning, the benefits and value to learners, and engagement with industry and employers.

While much of the literature on these topics focuses on the integration of the curriculum with learning in the workplace, one of the often-cited benefits of work-based learning and work-integrated learning — and something employers value — is how they can contribute to the development of employability skills. But the emphasis on employability skills can create a tension: should work-based learning in VET and work-integrated learning at university be formal structured experiences providing specific skills for specific subjects or modules? Or should the experiences be more generic work experience situations focused on developing employability skills and workplace exposure?

Alternative workplace experiences

The defining feature of work-based learning or work-integrated learning is that it is embedded in the curriculum or is an integral part of the training design, and this is what distinguishes these programs from other types of work experience placements and employment programs. However, other types of programs and approaches also aim to provide students with workplace experience and develop their work-readiness skills. It is important to make clear that these programs are not work-based or work-integrated learning, although they can still form an important part of training and preparation for the workplace. These types of programs and approaches can include the following:

- internships
- graduate programs
- work experience
- government employment programs.

Internships

Internships are programs and employment opportunities provided by employers to graduates and undergraduates. Internships can be a legitimate form of work-integrated learning; that is, they are part of the education process and learning is embedded in the experience. In other cases, internships are not associated with work-integrated learning and there is no formal integration with the education process. In these situations internships are forms of work experience or work trials. Companies often use internships as a way of attracting new talent and giving them a competitive advantage when it comes to recruiting new graduates. For students, internships can fulfil the requirement for 'work experience', which may be necessary for the course or for occupational accreditation, as with engineering. Where a work experience requirement is not a factor, internships may be a chance for students to develop a competitive edge over their peers through their gaining valuable skills and experience related to their occupation and career pathway.

Graduate programs

Graduate programs can serve as formal entry to employment and as career development for students graduating from university. Common in the public service, they can be program-based, often involving rotations within a company, or be project-based, where the graduate employee works on a specific project for the length of their employment. Such programs are typically aimed at providing graduates with opportunities to experience a range of functions across the enterprise, and they may or may not lead to ongoing employment.

Work experience

Work experience can be undertaken by students and can occur at high school, but could also form part of the workplace requirements of their course at university or in vocational education. However, work experience while at school is often unrelated to students' intended areas of study. Work experience requirements at university or vocational education may not form part of the formal curriculum or assessment, but they are usually in the occupation or the related area of study.

Government employment programs

Government employment programs aim to improve young people's employability, particularly the unemployed. Such programs include the Australian Government's proposed Youth Jobs PaTH program, which includes employability training and a trial employment internship placement (with subsidies paid to participating employers) in an effort to encourage more businesses to employ unemployed youth.

Why work-based learning and work-integrated learning?

Work-based learning and work-integrated learning provide students with the opportunity to develop specific skills and knowledge in the workplace, the underlying assumption being that not all skills can be learned in the classroom or workplaces, but through a combination of both. Work-based learning and work-integrated learning also provide students with the opportunity to learn generic employability skills, which are also highly valued by industry and employers. To be relevant, the generic employability skills should be contextualised and situated in the appropriate industry and professional workplace setting.

Both work-based learning and work-integrated learning can also provide students or apprentices with knowledge about an occupation or trade outside that taught at the education institution, providing an introduction to a particular workplace, occupation or industry. Each can also facilitate the establishment of occupational or industry networks and both have the potential for employment after course completion; there is also opportunity for students and apprentices to gain an enhanced understanding of workplace culture and professionalism.

A range of important factors can influence whether or not work-based learning and work-integrated learning are successful. While this paper focuses on one factor — employers' engagement in the work-based and work-integrated learning processes — other issues, such as teacher engagement and capability, and student engagement, are equally important.

When it comes to fostering engagement by teachers, there are clear curriculum and pedagogical practices that can be adopted to promote the effective integration of students' experiences in educational and practical settings. However, if teachers lack the interest or the capacities to engage in these ways, the outcomes are likely to be less than optimal.

When it comes to fostering engagement by students, the existence of clear goals (that is, what are they seeking to achieve?), supportive arrangements before students engage in work-integrated learning, appropriate appraisal, and sharing and contrasting their experiences with other students are likely to be helpful.

ENGAGING EMPLOYERS

In Australia, there is a strong tradition of industry engagement in VET, particularly when it comes to employers and industry having a role in driving curriculum and in training students, including:

- formal structures for industry engagement in the development of standards, curriculum and training products through various industry advisory groups and committees

- the role of employers in delivering training and assessing apprentices and trainees, and other VET students, and approving and signing off on competency.

VET is also known for its practitioners having close relationships with industry and established provider and industry training partnerships. Overall, employers are generally satisfied with VET training; however, some are concerned that VET provision sometimes fails to develop relevant skills, and, instead, provides training that is too general and not enterprise-specific enough, or lacks a focus on practical skills training.

Universities have traditionally been responsible for delivering education and training to students, but with the massification of higher education and the increasing demand for work-integrated learning, employers and industry are potentially taking on some of the role of teaching students. Work-integrated learning can present a challenge for universities and academics as it differs from the more conventional academic curriculum, practices and roles: universities and lecturers are now required to pursue collaborative curriculum design and delivery alongside industry partners. However, building effective partnerships takes time and effort, something both parties need to accept and be prepared to commit to if they want to achieve successful outcomes and effective employer engagement in work-integrated learning.

In both VET and higher education, employers and industry demand that graduates be more 'work ready', which can include the possession of enterprise-specific skills and the more technical skills related to the occupation as practised in the particular work setting. Industry and employers have long called for publicly funded education to be more relevant to their needs. Work-based learning and work-integrated learning are two key approaches for involving employers and industry in education and training, yet there remain challenges in both VET and university when it comes to engaging employers. However, it is not only enterprises who are making an investment; students commit significant resources, including time and financial, to work placements and to their studies.

> **When employers participate in work-based or work-integrated learning, they have the opportunity to 'give back' to their industry, identify potential new employees and develop existing staff as well as access to additional resources.**

Why should employers engage in work-based learning and work-integrated learning?

While the benefits of work-based learning and work-integrated learning for students are well established, there is less research focusing on why employers should support work-based learning. The benefits of both are often intangible, which makes them difficult to measure in financial and other terms and to determine the return on the investment. While some employers and staff recognise the value of work-based learning, others do not, which suggests that more needs to be done to demonstrate the benefits of work-based training to employers. Some of the top-billed benefits of work-based learning and work-integrated learning, as cited by employers and identified in the literature include[1]:

- *Corporate responsibility*: work-based learning and work-integrated learning give individual employers the opportunity to 'give back' to their industry, their occupation or profession, and the student community. A number of studies find 'corporate responsibility' to be a significant benefit and motivator for employers.

- *Recruitment strategy*: it is widely acknowledged in the literature that the recruitment potential of students and graduates can be a major benefit for employers. While this is particularly evident in apprenticeships and traineeships, other approaches, such as placements, provide employers with the opportunity to identify potential new talent or to 'test' students prior to hiring them, and to act as a feeder into graduate programs. However, it is important that employers treat students and apprentices as more than just potential employees or cheap labour: they need to engage with them as developing professionals and tradespeople. While the potential 'recruitment' aspects of these two approaches are recognised, there is a lack of literature in Australia evaluating whether or not employers go on to employ students and the extent to which this occurs.

- *Extra resources*: a further benefit of work-based learning or work-integrated learning is having additional staff resources or a 'pair of hands' to get additional jobs done, jobs the company may not have had the time or resources to accomplish. In order to be valuable, students and apprentices need to be able to do practical and productive tasks.

1 Key reports include Atkinson, Misko and Stanwick (2015), Callan and Ashworth (2004), McEwen et al. (2010), Orrell (2011), Papadopoulos et al. (2011), Patrick et al. (2008), Smith and Harris (2001), PhillipsKPA (2014).

- *Staff development*: work-based learning and work-integrated learning can benefit staff development processes, in that other staff members may be provided with the opportunity to supervise or train a less experienced team member, thereby supporting their own professional development.

- *Access to new thinking, ideas and technology*: students with access to new ideas, technology and research may encourage unanticipated innovation and bring in new information, ideas, practices and methods.

- *Better knowledge of and integration with the VET and university sectors*: existing partnerships can also contribute to building a culture of learning within an organisation and establishing relationships with VET and university providers, which can lead to collaboration on other projects and opportunities, such as research projects or other training opportunities.

Barriers and constraints to partnerships and participation in work-based learning

Despite the benefits of work-based learning and work-integrated learning to students and employers alike, there remain challenges when it comes to engaging employers in work-based and work-integrated learning. The range of barriers and constraints identified by employers in the literature include[2]:

- financial constraints and the costs associated with hosting students, apprentices and trainees, which leads to some employing organisations charging providers or relying on incentive payments

- lack of time or interest to invest in supervision and guidance

- limited information about work-based learning and work-integrated learning

- lack of a consistent understanding of work-based learning and work-integrated learning, their different aims and varying roles, and the expected outcomes across all parties

- differing expectations about the outcomes and benefits of work-based learning and work-integrated learning, and how the outcomes and benefits might vary between different employers

- lack of flexibility and responsiveness on the part of the education institutions to accommodate employer needs and the business cycle

2 Key reports include Atkinson, Misko and Stanwick (2015), Callan and Ashworth (2004), McEwen et al. (2010), Orrell (2011), Papadopoulos et al. (2011), Patrick et al. (2008), Smith and Harris (2001), PhillipsKPA (2014).

- the complex nature of education providers' systems, while bureaucracy can be confusing for employers unfamiliar with the process and unsure of who to contact at education institutions

- limited information on the opportunities and processes associated with work-based and work-integrated learning

- lack of industry relevance and outdated curricula or technology

- occupational health and safety issues

- legal concerns, such as industrial relations and intellectual property

- lack of potential students in the location or region

- the size of the business, that is, too small to take on students.

The extent to which these factors affect particular employers differs, but generally speaking the largest barriers to employers are not enough time or enough resources to host students or apprentices and trainees. To encourage greater employer engagement, the learning experience must be credible and valuable to both the employer and student.

FOSTERING EMPLOYER ENGAGEMENT: WHAT WORKS?

The literature identifies a number of strategies and processes that can be put in place by educational institutions to help boost engagement with work-based learning and work-integrated learning.[3]

Clearer expectations and improved communication and support

Adequate information and an appropriate level of communication between the education institutions and the employer are integral for establishing and maintaining partnerships. Employers would prefer greater information on:

- the expected roles of the university or VET provider
- the expected role of the employer
- the contact persons at the institution/s
- the objectives and outcomes of work-based learning and work-integrated learning
- projects and assessment activities as they relate to the work-based learning and work-integrated learning
- timetables, schedules and course or module information where relevant to the work-based learning and work-integrated learning experience
- students' capabilities and qualifications.

Employers indicated they would like to receive information in a simple and concise format. For apprenticeships and traineeships, this information is usually captured in the training plan developed by the training provider, apprentice and employer, whereas universities are more likely to rely on handbooks, guidelines, web resources and briefing sessions, because the relationship between the student and the workplace is of a different kind.

While it is one thing to have this information provided upfront in a documented training plan or 'learning contract', employers also prefer more regular, systematic and formalised communication with the university or provider. This helps to ensure that relevant information is readily available when employers need it, and that issues can be resolved in a timely and responsive manner. The challenge for employers and training providers alike is to ensure that communication channels remain open throughout the period of training or work-integrated learning experience and that documentation is not static and remains up to date.

> **Employers would like clearer communication from universities and VET providers on the specific work-based learning and work-integrated learning activities on offer.**

3 Key reports include Atkinson, Misko and Stanwick (2015), Callan and Ashworth (2004), McEwen et al. (2010), Orrell (2011), Papadopoulos et al. (2011), Patrick et al. (2008), Smith and Harris (2001), PhillipsKPA (2014).

A more centralised approach to the provision of support and information could also be implemented, allowing employers easy access to information on work-based learning and work-integrated learning. This could include a centralised office in the education and training provider for handling queries and interactions with employers and coordinating all activities. A centralised approach could also include an online portal, providing employers and students a 'one stop shop' of information on different types of work-based and work-integrated learning opportunities across different education and training providers. That said, some activities and partnerships need to be organised and enacted locally, not centrally, due to the nature of local networks and the idiosyncrasies of different disciplines and enterprises. For example, preparing students to engage in particular workplaces, and devising activities that are relevant to that workplace's needs, requires knowing something about the particular workplace. So what is important is an approach to communication and information provision that suits the needs of all parties, education providers, employers and students.

While increased information and communication between education institutions and employers is desirable, this is potentially resource-intensive and could add costs and administrative burden to both the education and training providers and the employers. It is also acknowledged that it takes time to build partnerships between education and training providers and employers — and these are often facilitated by existing connections between certain academics and practitioners and people in business.

Flexibility and responsiveness to industry and employer needs

For employers to see value in work-based or work-integrated learning, it needs to be responsive to their business needs and fit in with their business cycles. This is true for industry and VET provider training partnerships too, and employers prefer training to be customised to meet their needs and be flexible when it comes to delivery modes.

Flexible approaches can be a way of making the experience more valuable to employers and assist in overcoming some of the barriers and in supporting collaboration. The institutional nature of VET providers and universities means that it is challenging for both to develop partnerships with individual companies that meet their specific needs.

There are differing approaches to work-based learning and work-integrated learning across fields of education and disciplines, with varying professional and industry requirements. There are also requirements for structured courses and accredited subjects, while set terms and semesters are limiting factors.

Given these issues, it is difficult for VET providers and universities to come up with a 'one size fits all' approach to facilitating work-based learning or work-integrated learning — and it is not something the employers demand. Irrespective of the differing approaches and levels of engagement of various industries and employers, it is important to further involve employers in the facilitation process in order to find an approach that works for all parties.

Employer engagement in the design and delivery of the course and assessment

Some employers would like to be more involved in the design and delivery of work-based learning or work-integrated learning. This is not only to ensure that the learning experience meets their business needs, but to ensure the course or project is up to date with developments in the particular industry.

In some cases, employers would like greater involvement in the assessment and appraisals process, as they are well positioned to provide feedback and encouragement to students, both formally and informally. This occurs in apprenticeships and traineeships and could be considered further in work-integrated learning and other forms of VET studies. Workplace supervisors have expertise and experience in the workplace, so therefore are well placed to observe and provide feedback on a student's performance. Most students value the opportunity to receive feedback from an expert in their field. Other suggestions for increasing employer engagement include employers debriefing students at the end of the placement; administering evaluation questionnaires; and attending class assessment sessions to hear students' experiences.

ABN apprenticeship program case study

The ABN Group apprenticeship program is an example of an employer-driven approach to work-based learning.

The ABN Group is an operator in the building and construction sector focusing on new home and home renovations in Western Australia and Victoria. The organisation runs an enterprise-embedded apprenticeship program across their 23 integrated companies. The ABN Group's own internal group training organisation, ABN Training, is responsible for designing, developing and implementing the apprenticeship program.

The ABN Group introduced the program because they were interested in finding a model to better meet their workforce needs. They wanted to meet a high standard of training, recruit talented apprentices, better support apprentices to complete their apprenticeship and retain graduate apprentices within the company. They also wanted to attract adult apprentices, female apprentices and Indigenous apprentices.

Key features of the program include:

- the promotion of building and construction career paths for Year 10-12 students. This includes involvement in career fairs, school-based 'try a trade' short courses and programs, and pre-apprenticeships. In selecting candidates for apprenticeships, ABN Training works with schools and RTOs to select students who have participated in the school-based programs, as they have a better understanding of the industry and a low risk of cancelling their apprenticeship

- apprenticeship programs delivered in house. This includes specialised training teams, tailored training and career plans, exposure to all trades before selecting one (to help apprentices to determine their area of interest), manageable ratios of training manager to apprentices, internal and external assessment and an awards system to encourage high-achieving apprentices

- graduation program with a range of employment options and the provision of coaching and mentoring programs, financial support through grants, interest-free loans and finance packages, and further training and development for those who are interested in establishing their own business.

As a consequence of the introduction of the embedded apprenticeship program, with its emphasis on pre- and post-apprenticeship support, the ABN Group has high completion and retention rates compared with the national average.

For more information see ABN Group <http://www.abngroup.com.au/> and OECD (2016).

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Use of third parties as intermediaries

The role of third parties as intermediaries is also important in facilitating work-based and work-integrated learning. In regards to apprenticeships and traineeships, group training organisations (GTOs) have long been used as a way of connecting apprentices and employers. GTOs employ apprentices and trainees and place them with host employers and they are responsible for ensuring the quality and continuity of the training.

Other types of third parties, such as industry bodies and associations, and government departments, are becoming increasingly involved in supporting and facilitating work-based learning and work-integrated learning. This can include promotion among employer members; matching employers with students and apprentices; sponsoring and coordinating activities, programs or scholarships; and running programs for students and employers. These third parties are invaluable as they are able to share some of the burden of organising and facilitating work-based learning and they are able to promote the value of work-integrated learning to industry and professions more broadly.

In the case of regional areas, towns and cities, local governments can play a coordinating role in bringing together local business leaders, education and training institutions and relevant government officials to drive the development of work-based and work-integrated learning at the local level.

Undergraduate Research Opportunities Program (UROP) case study

UROP is a paid employment scheme which aims to give undergraduate students (with an interest in biomedical research) the opportunity to experience work in a research laboratory and to gain insight into careers in biomedical research. Students undertake a project which is part of the research program of a biomedical research laboratory. Students are supervised and mentored by a research scientist and work alongside other research staff and students in the team. The project can be experimental and based in a laboratory, clinical, computational or mathematical/statistical, computational or dealing with clinical data.

The UROP program is not a formal part of undergraduate coursework or assessment, but it is supported by universities because it provides the practical application of work in a research laboratory for undergraduates.

During semester time, UROP participants work approximately eight hours per week on their project, but in vacation periods they are expected to work in the laboratory full-time for a total of at least six weeks.

UROP is a program managed by an intermediary organisation, Biomedical Research Victoria. The UROP team provides the recruitment service and facilitation between students and employing organisations, although they do not directly employ students. Instead, students are employed by a hosting organisation, while the employment contract and other aspects of the employment relationship are managed by the employer.

Prospective participants submit an application and undergo an interview and selection process. The program runs for six to 12 months, with a probation period of three months.

This case study provides one example of an intermediary organisation which is able to match students with employers and facilitate the work-integrated learning process.

For more see BioMedical Research Victoria <http://biomedvic.org.au/urop/>.

Engaging small to medium enterprises

Both the VET and higher education sectors have examples of positive and enduring partnerships between education and training institutions and workplaces. There are also examples in which large employers run their own training and/or internship programs. While many of these programs and partnerships are successful and could be emulated by other institutions and businesses, large businesses are more likely to have the resources and impetus to support these programs: they can demonstrate a commitment to work-based learning because they see its value to their businesses, and work-based learning is often supported by the senior executive leadership. On the other hand, small to medium enterprises (SMEs) can struggle to find the resources, time and effort required to supervise and train students and apprentices. This is where education and training providers and intermediaries can play a vital role — in promoting work-based learning to SMEs and supporting them to engage in work-based learning.

Champions of work-based learning and work-integrated learning

It is important for employers and industry partners, along with university staff and VET providers, to take up the mantle to be leaders in work-based and work-integrated learning. It is the leaders and champions who are able to

drive the promotion and uptake of the programs and activities associated with work-based and work-integrated learning approaches. Leaders and champions could encompass a range of management staff, lecturers and practitioners at universities and providers, as well as staff and supervisors in industry and community partner organisations, both at the operational and strategic levels. Senior management should be involved in and supportive of work-based and work-integrated learning initiatives.

Raising the profile of work-based and work-integrated learning and promoting their value among employers requires community engagement processes, which can occur at both industry and local levels. Here key players in business, education and government can collaborate on promoting and driving work-based and work-integrated learning opportunities and uptake. Leaders who see the value of work-based learning and work-integrated learning are crucial to the success of this process.

Policy levers

A range of policy levers have been implemented, or proposed, in a number of cases to promote the uptake of work-based and work-integrated learning among education providers and employers, including:

- government-funded incentive payments to employers to take on apprentices and trainees and work-integrated learning students
- funding for education and training providers linked with work-based or work-integrated learning provision
- tax concessions for companies who offer work-based or work-integrated learning opportunities
- an education and training levy for industry to support the development and implementation of work-based or work-integrated learning opportunities and programs
- work-based learning or work-integrated learning components included in procurement policy.

While the success and value of some of these measures has been the topic of rigorous debate, in some instances they have proved effective in encouraging the uptake of work-based learning and work-integrated learning.

THE KEYS TO SUCCESSFUL EMPLOYER ENGAGEMENT

There is a continuing push from education providers and employers to boost the number of students engaged in work-based and work-integrated learning.

The VET sector has a long history of incorporating the world of work into education and training in many of its programs. While this has been traditionally seen in apprenticeships and traineeships, whereby learners spend most of their time learning on the job, institutional VET also has strong links to work-based learning through shorter-term placements, simulation and scenario-based learning.

The higher education sector has seen a proliferation of programs with work-integrated learning over the past few decades. While originally concentrated in professional degrees, work-integrated learning has expanded into other disciplines. Both sectors of tertiary education are seeing a greater interest in innovative approaches to work-based and work-integrated education, although the extent to which it is being undertaken is unclear. A stocktake of activities or its reporting in administrative data collections would be of value in gaining a clearer picture of the growth and extent of work-based and work-integrated learning activities across the sectors, including the diversity of the educational goals and the processes being used.

A considerable amount of the literature in Australia and internationally explores work-based and work-integrated educational provisions in various sectors and disciplines. Research looks at the theory of workplace learning, pedagogy and curriculum, the different approaches adopted, and student engagement and benefits, as well as employer and industry engagement. Some also looks at the strategies that teachers and students need for maximising their learning. The consensus from the literature is that there is a strong rationale for work-based and work-integrated learning, although the financial and time-intensive nature of the learning approaches, both from the perspective of the education and training provider and the employer, is acknowledged.

When it comes to fostering engagement with employers, a number of key factors have been shown to be integral to successful partnerships between education providers and employers.

- Easy access to information on work-based and work-integrated learning is important for identifying the available programs and opportunities, as well as ensuring clearer understandings about the roles and expectations of all parties.
- Ongoing and open communication between the parties is important for

developing partnerships and resolving issues.

- The involvement of industry associations and other third parties could also be encouraged, as they are able to assist in the promotion and facilitation of work-based and work-integrated learning programs and opportunities.

- Commitment and leadership from education providers and employers alike are vital.

Education providers should proactively develop and maintain partnerships with industry, accepting that some flexibility may be required in their approach; and business leaders and their staff need to be committed to providing work-based and work-integrated learning activities, and to supporting the apprentices and students they host. All these factors are important, regardless of whether the training is predominantly based in the workplace, such as an apprenticeship or traineeship, or consists of a short-term placement or project, which is common in university work-integrated learning programs. Despite the different nature of vocational and university education and their approaches to work-based or work-integrated learning, the lessons in better engaging employers remain the same.

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