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Work-integrated learning and international students: the value of experience

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The Industrial Affiliates Program (IAP) was established at Griffith University in 1993 to enable engineering honours students to complete a thesis based on an industry project, and to provide all final year students with a Work Integrated Learning (WIL) experience. Since its inception, the IAP has facilitated in excess of 1000 placements, including mandatory placements for civil, electronic, coastal and environmental engineering students, and elective placements for students in science, information technology and multimedia disciplines.

As the reputation of Griffith's WIL expertise grows in Australia, so too does its international following. Offering some of the more robust project-based learning experiences, Griffith University has become the first choice for many international students seeking to enhance their workplace readiness.

Research indicates that for many multinational companies, the global skills shortage has made it difficult to attract competent workers to some international locations. They cite poor business acumen and little real-world experience as serious shortcomings in the domestic pool of applicants. However, with programs such as Griffith's IAP, there may be opportunities for Australian tertiary institutions to work with these organisations to produce graduates who possess the desired attributes.

This paper examines the long-term implications and opportunities for international partnerships between Australian universities, international students and multinational organisations, including internationally recognised qualifications for overseas program participants. Case studies are discussed which highlight the successes of international students who have participated in Griffith's IAP, and industry data is presented to demonstrate the significance of business skills acquired through a project-based WIL experience.

Keywords: IAP, industrial affiliates program, global skills shortage, international students, placement, WIL, work-integrated learning, work placement

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Of all the challenges confronting multinational organisations, perhaps the most critical is the attraction and retention of skilled university graduates. It has long been recognised that the world economy is in the midst of a skills shortage, and this epidemic appears to have a greater impact on businesses with sites in developing economies, particularly in Asia. In this context, there are a number of distinctive issues that impede the successful implementation of graduate recruitment programs. Not that there is any shortage of graduates – in fact, quite the contrary. In 2006, for example, China produced nearly five million university graduates (China Daily, 2008), and India almost 10 million (Nadu, 2007). But there *is* a shortage of *talent* – in India, just 25 percent of graduates are considered ‘employable’ by large organisations (Nadu, 2007)), and in China, that figure falls to 10 percent (Farrell and Grant, 2005).

Work-integrated learning (WIL) is one option that tertiary institutions the world over are now exploring as a potential solution to this problem. WIL is an educational phenomenon that began in the United States of America early in the 20th century as a means of providing technical students with more than just the traditional classroom learning experience (Smollins, 1999), thereby enhancing their graduate employability skills. Over the last century, this concept has been recognised internationally, and is slowly embedding itself in the Australian tertiary education system.

So is there an opportunity for Australian universities to support graduate skill development in companies with international operations? What can they do locally, and what can they do globally? Can work-integrated learning programs that are running successfully in Australia be implemented in an international environment? If so, what are the considerations and implications? And what does the process involve?

International students have been involved with Griffith University’s Industrial Affiliates Program (IAP) for many years now. This is a robust WIL model with a number of in-built support mechanisms that enable students to complete a work-based project in a secure and nurturing environment. Student participants acquire new skills in project management, and enhance existing skills including communication skills, presentation skills and teamwork skills. Statistics from 2007 indicate that more than 70% of IAP students were employed as a direct result of their IAP project experience.

From an international student perspective, the opportunity to study and gain experience overseas is fundamental to their professional success. Sixty-five percent of multinational employers believe that relevant overseas study experience makes graduates more employable (McKillop, 2008), as it develops their understanding of cultural diversity and different workplace practices. Studies show that these graduates are more willing and better equipped to move into roles with overseas operations, and will consider the positive outcomes associated with such an experience.

In addition to the value associated with an international study experience, professional workplace experience with an international organisation adds a wealth of value to a student portfolio. For this reason, many of the international students who enrol in Griffith University’s Science, Environment, Engineering and Technology disciplines undertake an IAP project either as a core or an elective component of their degree. The following case studies demonstrate the value that Griffith University’s IAP offers to international students:

Christophe Louis is from New Caledonia, and undertook an elective Industrial Affiliates Program (IAP) placement with Software Design Consultants (SDC) in the final year of his Bachelor of Information Technology degree in 2007. His task was to create a dynamic website that would allow SDC's clients to access customised information, and would also act as a marketing tool for new clients. Christophe noted that his IAP experience substantially developed his self management, conceptual and analytical skills, as well as his personal and professional effectiveness. It also contributed significantly to his communication and problem solving skills, and his workplace flexibility. Christophe stated that simply having some professional work experience in Australia added significantly to his employability.

Rakitha Tui Appu Arachilage Don is a Bachelor of Electronic Engineering student from Sri Lanka. He worked with Monduran Pty Ltd in 2008 to design a methane gas detector for an underground mining vehicle. Rakitha identified a range of professional attributes that were developed significantly during his IAP project, including project management skills, and his professional effectiveness. Additionally, Rakitha improved his interpersonal and communication skills, problem solving, conceptual and analytical skills, and his adaptability. He wrote that his project has made him more employable, "because it provided practical knowledge not available in other courses". Rakitha also stated that the real advantage comes in interviews when he can talk about his personal involvement with a, "real life project with real outcomes, which can mean more than just having a good GPA."

But what specifically makes WIL programs attractive to international students? Patrick and Crebert (2004) compared graduate perceptions and outcomes from students who completed a WIL placement as part of their engineering degree with engineering students who didn't complete a WIL placement, and found that students with WIL not only demonstrated enhanced generic skills, but also had a greater awareness of the value of those soft skills for themselves and for their employers (see Table 1 for figures). This is exactly what international students need.

TABLE 1

The contribution of work-integrated learning to generic skills development (taken from Patrick and Crebert, 2003)

Statement	WIL participants (% agreed)	Other graduates (% agreed)
University teaching staff made me aware of the importance of generic skills and abilities for my future career	57.5	39
At university it seemed more important for career prospects to acquire content knowledge than generic skills	43.6	63.4
My university undergraduate degree did provide sufficient opportunities to develop generic skills and abilities	87.5	51.2
Employer creates sufficient opportunities to further develop generic skills and abilities in the workplace after graduation	82.8	85.4
The workplace was so different from university that it was hard to transfer generic skills and abilities when I started employment	25.8	46.4
Development of generic skills and abilities during university work placement gave me, or would have given me, a definite advantage when it came to finding employment after graduation	56.5	58.5
Participation in work placement contributed to (or would have contributed) to advancement in career	71	82

And what are the multinational organisations looking for from their graduates? When it comes to employing new graduates, multinational organisations are typically looking for the same things as local companies – they are looking for demonstrable soft skills, with communication and teamwork skills considered the most valuable (Archer and Davison, 2008; QETI and IEAA, 2006). But they want something better. Archer and Davison (2008) found that 65% of international employers believe that overseas work experience makes graduates more attractive. Further, the multinationals place a greater emphasis on teamwork and analytical skills, and 70% are more inclined to consider the quality of the individual's qualifications, versus just 52% of local companies. Multinational businesses are generally seeking a higher calibre graduate.

When the requirements of the multinational organisations are considered, it is immediately apparent that there is a real need for work-integrated learning. WIL programs are producing better graduates with the skills that multinational employers are looking for. Hence as WIL programs are developed and expanded in Australia, they should be considering the global market.

There are a number of established initiatives already in place in Australian universities specifically for international students. For example, the University of Western Sydney has had great success with an internship program where students come to Australia specifically to undertake an internship with a large organisation hand-picked by the Careers and Cooperative Education staff. The international students pay for the opportunity to work internationally in an area aligned with their qualifications, and there are no fees charged to the sponsoring businesses. For the University, this is an opportunity to develop new relationships with the organisations the students are placed in, which in turn can lead to joint research ventures, more opportunities for UWS graduates, and a multitude of other possibilities. The ongoing collaboration and research opportunities available through WIL have also been demonstrated through Griffith University's IAP. Other initiatives have stemmed from the Thailand-Australia Science and Engineering Program (TASEAP), which saw a number of strategic alliances formed between Australian and Thai universities.

Australian universities could be working directly to provide scholarship opportunities for students from developing economies with the backing of multinational employers with a contingency for the student to return to the home country as an employee of the MNC on completion of their study. Such schemes would be attractive to potential students because their study is funded and they have excellent job opportunities with their employer of choice. And such a program should be attractive to the multinational companies because they gain a graduate with both international study experience and international work experience who can undertake a role in their organisation immediately upon their return. Studies indicate that students who study internationally are more likely to be bilingual (QETI and IEAA, 2006), which is an important consideration for businesses with international operations. Twenty-six percent of multinational organisations openly source graduates with this attribute, compared with just 21% of local companies (Archer and Davison, 2008). From the multinational employer's perspective, it is a small financial outlay for a great return on their investment, and bottom line is always a priority for any business.

However, there are a number of issues associated with inbound programs that Australian universities must take into consideration. The greatest obstacle is associated with student visas, especially if students are receiving payment for the placement. Student visas in Australia limit students to a maximum of 20 hours of paid work per week during semester.

The alternative is to take the best practice WIL programs from Australia and to find an effective means of delivering the programs offshore. For example, Griffith University offers a Master of Drama Education with Honours as an offshore program in conjunction with the Hong Kong Art School, and has included a WIL component in the program. This program targets teachers, social workers and dramatic artists, and the WIL aspect of this program is designed to enhance their capacity to devise educational theatre programs and to project manage in the applied theatre industry.

Most tertiary institutions in Australia have rigorous controls around the establishment of an offshore program – it is no easy task. The greatest problem is assimilating a program designed for Australian students and Australian workplaces into another culture. Forming a partnership with an international university helps somewhat, but often there will be a requirement to factor in a large component of change to the

original WIL program, both from the student learning perspective and from the international work culture perspective. The age-old adage, 'you can't fit a square peg in a round hole' really applies in this case.

In addition to what may be perceived as the obvious problems, such as language deficits for programs delivered in English, there are a number of other factors to consider when preparing any program with an international audience. For example, Parsons and Dowling (2004) examined the delivery of engineering programs to Asian students, and identified four areas for consideration. Their findings are as follows:

1. A culture of individuality imbues the Australian education system, versus a stronger culture of group support as evidenced in many Asian cultures. In Australia, students are expected to be self-sufficient,
2. Engineering educators in Australia anticipate that all of their students will have some 'hands-on' skills, or are at the very least inclined to develop them, when this in fact is not the case. Many Asian students have little or no experience outside the classroom, as their domestic environment minimise the likelihood of exposure to machinery.
3. Common sense is highly valued in the Australian culture, but not necessarily in other cultures. Here, students develop the capacity to prioritise, and to ignore things that seem unimportant, whereas many international students struggle to differentiate between what is and what isn't imperative.
4. Diversity of skill is assumed – here, we anticipate that students are able to manage different facets of a project, whereas in some Asian cultures, the range of duties associated with a particular role is considerably narrow.

It is of paramount importance to develop strategies to effectively counter these risks before WIL programs for international students are implemented, or the failure rate – both of students and of programs – will undoubtedly be very high. The negative impact this can have on the reputation of the institution is vast in a sector as competitive as tertiary education, where student perceptions largely account for their choice of where to enrol.

So with the global skills deficit the way it is, and with the capabilities that are so obvious in Australian WIL programs, there is plenty of opportunity for local universities to partner with multinational organisations to produce graduates from developing countries with the capabilities that are in demand. The next step is to devise WIL curricula that will support international students as they make the transition from the classroom to the workforce. For the multinationals, it is the attraction and retention of appropriately skilled graduates that poses the biggest threat in developing countries – by demonstrating their support for international students and WIL programs, they may be able to reduce the impact of this issue. Once this is under control, some headway can be made into reducing the global skills shortage.

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