

Student preparation for WIL

Research has shown that the most significant attributes of work readiness identified by employers are not necessarily those related to content knowledge of the discipline, but are common across all workplaces. Research suggests optional on-campus counselors are not effective in providing this training.

The benefits of greater connectivity between context and learning have been identified by education researchers worldwide, resulting in enhanced outcomes for students, employers and educators.

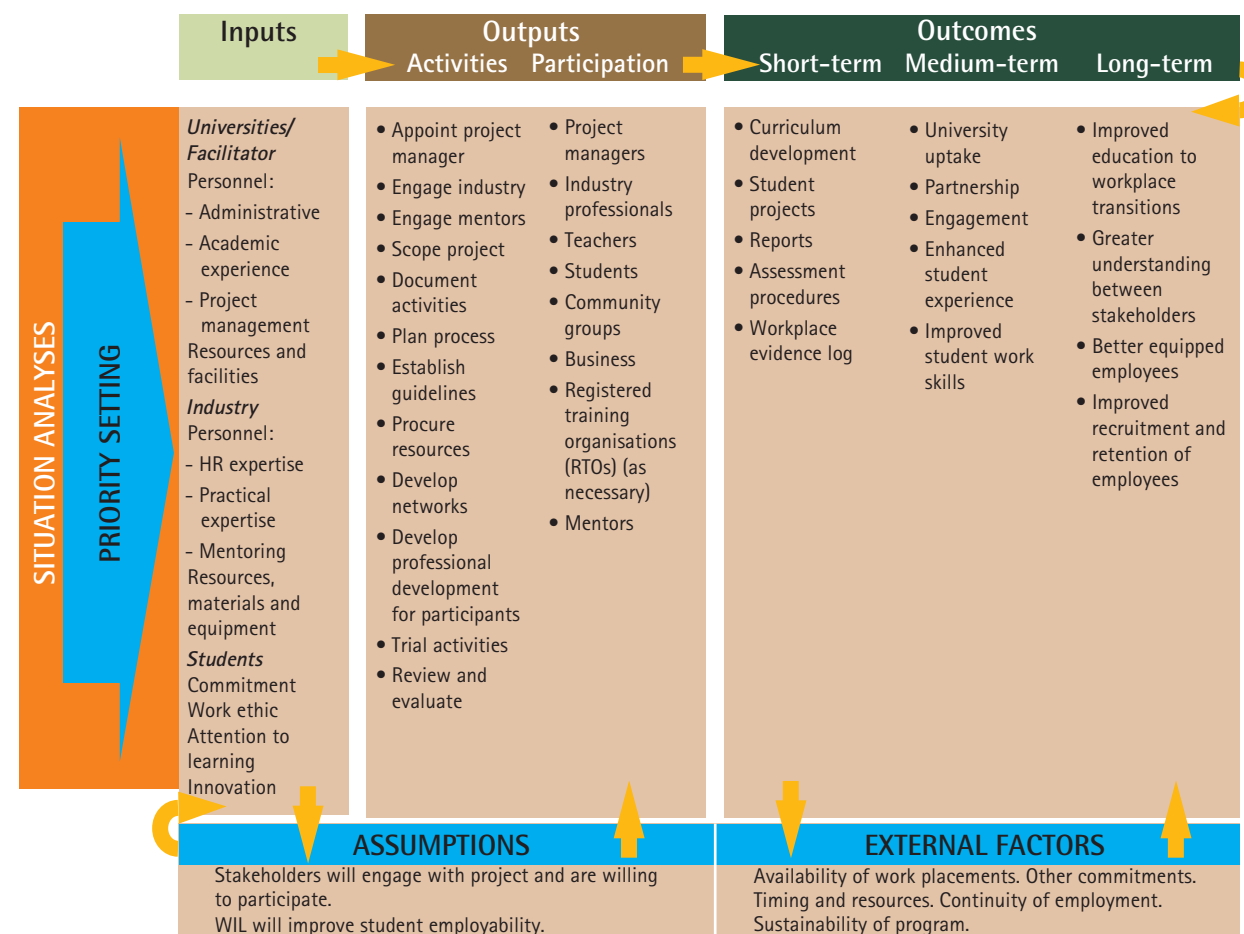
Skill development	<p>Professional engagement skills:</p> <ul style="list-style-type: none"> • Communication skill development • Project management processes, including budgeting and grant application • Team-building processes • Workplace literacy • Independence, assertiveness and confidence training • Workplace health and safety knowledge • Legal and ethical obligations and responsibilities • Cultural awareness and values • Problem solving approaches <p>Technical skills:</p> <p>Options for registered training organisations (RTOs) and external providers to provide requisite technical competencies not within the university or industry capacity to fulfil may be considered. Additional certificates and diplomas may also be awarded.</p>
Attitude and maturity development	It is essential to build mutual respect and mutual responsibility, that is, both from student to university and employer and vice versa. Students need a mature work ethic to gain real value from the WIL experience.

Monitoring the success of WIL

WIL programs should be assessed against defined criteria to ensure their continued success and relevance. Some outcomes that may be useful in defining the achievements of the programs are outlined here.

Improvement of student outcomes	Recording of student achievements needs to be comprehensive to track the validity of the perception that WIL contributes to significant student improvement. These should be comprehensive data, including postgraduate studies and employment experiences as well as academic results. Standardised data collection would aid comparability of experiences and offer a form of benchmarking. Student's perceptions should also be considered.
Improved communication between employers and universities	<p>The engagement between industry and universities should result in a win-win situation with enhanced outcomes for both. Academics should gain a greater insight into the workings and expectations of industry, and explore opportunities for practical testing of new theoretical concepts. There must be acknowledgement of industry input and potential.</p> <p>Industry should gain corresponding advantages of exposure to cutting-edge science and technology and opportunities for cooperative research.</p>
Increased valuing of student learning by all stakeholders	All participants should appreciate the significance of the different elements of learning and professional development in different situations. The balance between practical and theoretical experience and knowledge contributes to the overall finished professional.
Increased sharing of knowledge between universities and industry	<p>Through the process of project development and university partnership, as well as through the contribution made by the student, industry has the opportunity to gain knowledge and insights that may otherwise require considerable investment of time and resources. This sharing process should be documented and quantified for validation purposes. Any aspects of intellectual property rights must be adequately protected.</p> <p>Research indicates that the student in the workplace is the greatest facilitating mechanism for transferring new knowledge from university to industry.</p>
Positive cost benefit to employers, job creation through innovation	Documented evidence shows employers have used new ideas and innovations by students to improve and expand their business practices. It is also an investment in the future, reducing in-house training costs for new employees.
Enhanced professional and personal development of students	By increasing interaction with the professional community the students develop their professional identity and confidence. This improves their employability and potential for creating an enhanced career path within their chosen occupation.

Model for WIL planning and implementation



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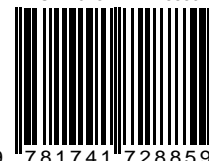
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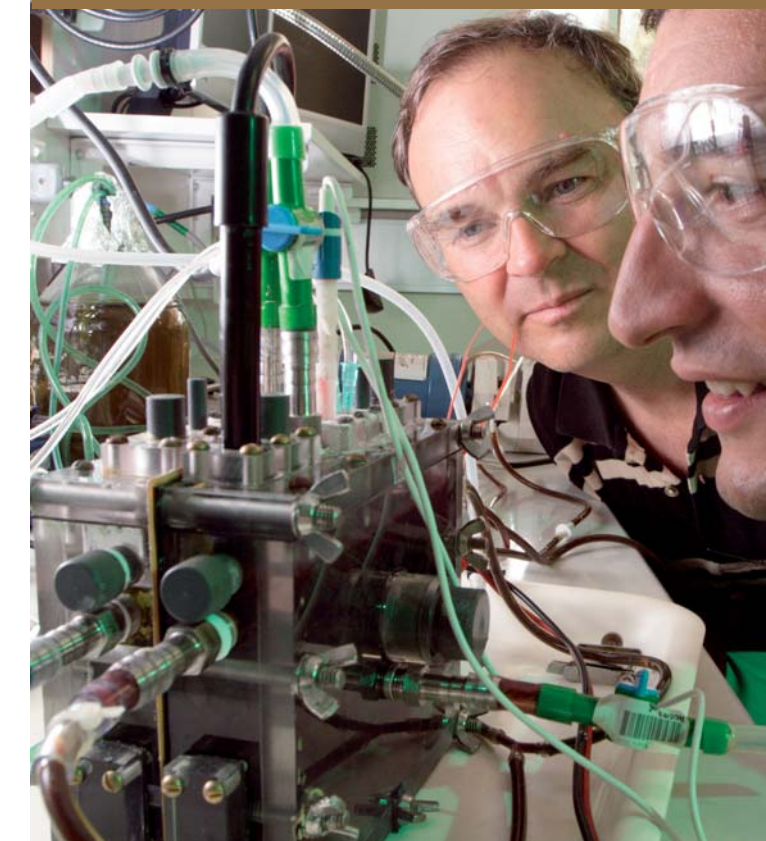


Guidelines for good practice in work integrated learning for the integrated resource sciences

Prepared for the Consortium for Integrated Resource Management

The accompanying CD contains the full report *Improving graduate employability skills in the integrated resource sciences*

May 2008



PURPOSE OF THE GUIDELINES

In 2005 the Consortium for Integrated Resource Management (CIRM) established a multi-agency working group in response to concerns raised by industry partners that university graduates did not possess all the skills needed for work in natural resource management.

The report *Options for improving the employability of natural resource management and environmental science graduates in Queensland* (Wright et al. 2006) outlined mechanisms likely to improve the employability of natural resource management (NRM)/environmental science graduates. One of those options, building practical experience into undergraduate degree programs, was chosen for further analysis. The resulting publication *Improving graduate employability skills in the integrated resource sciences* (Scoullar et al. 2007) is reproduced in the attached CD, and available in print or on line at <www.cirm.org.au>.

This work has adopted "integrated resource sciences" to cover a range of courses offered by universities, including agriculture, natural resource management, environmental science and engineering, and the generic term "work integrated learning" (WIL) for the diverse range of processes, including internships and work placements, that integrate learning with its application in the workplace.

These guidelines distil the key processes identified as necessary to construct an effective WIL program within the integrated resource sciences areas at the undergraduate level. The strengths and challenges of establishing successful programs have been examined, with an assessment of the support necessary for implementation of an effective model for key stakeholders. The stakeholders are identified under three generic headings of employers, universities and students. It is anticipated that practitioners will modify and adapt these processes to suit individual situations.

Features of productive WIL development

For an effective WIL program, the environment in which it is developed and implemented needs to be well defined and established to produce constructive outcomes for the stakeholders. The following are essential ingredients for success.	
Positive relationships between employers and universities	A facilitator to promote ongoing relationships within and between employers and universities is necessary for effective and collaborative partnerships with clear objectives. The facilitator position may be internal or outsourced but generally will be based within the university, and will work across a range of curricula.
Industry input into curriculum design	It is essential to engage industry in the initial planning stages of the curriculum design to ensure relevance and ownership for all parties. Industry could be represented on an individual basis, or through an appropriate professional association. It is important to engage with key HR personnel in the participating organisations as well as content specialists.
Compulsory component of course	For full benefits, the program should be a compulsory component of the degree course, and have a significant credit value to the student. If insufficient industry placements are available, supplementary authentic and real-world experiences can be simulated within the university and can also be incorporated into genuine university research programs and through partnerships with affiliated research institutes.
Minimal financial cost to universities	Universities do not have the capacity to increase current funding for courses. Off-campus experiences need to be cost-neutral to the university.
Student input value greater than industry costs	Positive examples of WIL experiences by employers need to be showcased to encourage active participation and to inform industry of the total value of participating in WIL programs. Examples of positive and beneficial programs can be obtained from experienced practitioners.
Increased professional recognition: 1. Mutual recognition 2. Increased acceptance of student capability	The increased collaboration between industry, universities and students provides a greater appreciation and recognition of the value added by all parties and the importance of each. The potential for accreditation and registration of practitioners by an appropriate professional body encourages an additional level of professional excellence.
Clarity of agreement between parties	It is essential that the expectations and responsibilities of each party are clearly enunciated and accepted prior to undertaking any program. These include legal, ethical and academic responsibilities. Such issues as insurance/work cover need to be clearly defined prior to any engagement, and may vary depending on the nature of the engagement.

Considerations to be addressed

There may be times that government intervention is essential to create and maintain the potential opportunities for participation in WIL programs across a wide range of industries. Those areas most likely to need assistance should be identified and recorded for future action. This may be a changing cohort, depending on economic and environmental circumstances, so continual monitoring is required.	
Universities Australia is developing a case for increased government funding to supplement the costs of the introduction and effective implementation of WIL programs over and above usual course costs to all stakeholders.	
Some areas that will need ongoing and adaptive attention include those listed here.	
Variability within industry	Industry is subject to fluctuations in response to economic pressures, and the ability for WIL participation will reflect such variations. This will place a corresponding pressure on universities to maintain courses through periods of downturn in student enrolment.
Capacity of industry	Smaller industries will have limitations on their capacity to engage with WIL projects due to the demand on temporal, human and financial resources.
University course structure	Changes to university curriculum are time-consuming and expensive. Support is needed for curriculum developers to investigate and produce the most appropriate programs for the specific demands of particular industries and professions.
Employer acceptance and expectations	To avoid misconceptions and misunderstandings between stakeholders, it is essential that employers are not only briefed on their responsibilities, but able to clearly express their expectations, and that any points of contention are clarified prior to any involvement with students. The value of WIL to the employer needs to be demonstrable.
Bridging theory and practice	Partners need to work closely together to ensure that the theoretical and practical elements of the project are complementary and assessable in a meaningful context.
Costs to students	The possibilities for scholarships and paid work opportunities should be explored by the project team to help overcome potential problems related to expenses and loss of income for students undertaking WIL projects.
Maintaining academic rigour	As part of unit design, the assessment criteria should be clearly enunciated and understood by all stakeholders. These should be developed in consultation with the stakeholders. Concepts for assessment, including self assessment need to be explored.



The accompanying CD contains the full report of

Improving graduate employability skills in the integrated resource sciences

A report prepared for the Consortium for Integrated Resource Management by

Rhonda Scoullar and the CIRM Graduate Employability Working Group (2007)

CIRM

Program development and activities

A project team representing educators and industry interests needs to be established from the beginning to ensure all stakeholder interests are addressed. This group will be responsible for curriculum development and continued review of course elements to ensure ongoing relevance and cohesiveness to meet the requirements of all stakeholders. The group would identify and implement appropriate project management and review procedures to ensure effective outcomes for the project.

Ideally the project manager would be the WIL facilitator in the university.

Processes to progress engagement should consider the win-win elements common in other bipartisan agreements.

Design program/course and curriculum to incorporate work experience options	The professional practice program and work experience components need to be integral elements of the curriculum design and contribute meaningfully to the overall degree attributes. To develop real-world, future-focused and authentic experiences as WIL proceeds, engagement with industry groups will/should translate into discernible impacts on and changes in curricula design and degree focus.
Identify appropriate areas to incorporate work placements or in-class simulations	Work placements need to be flexible and relevant to the course of study, and the purpose of the placement needs to be identified, whether it is to experience work practices or to achieve a practical and useful project outcome.
Develop mentoring and assessment procedures	Students require both industry and academic assistance so the work they perform and the outcomes they achieve meet the requirements of both the educational institution and the employing organisation. These processes must be built into the course structure. It should be explicit that industry needs to visit the classroom both to progress professional recognition and to contribute to curriculum development. Use should be made of available technologies to overcome problems of time and space. Student self assessment can reflect an element of increasing professionalism and independence.
Identify processes for alerting employers to program	To engage employers in the design and planning phases of the program, they must be alerted to the existence of the program. A facilitator or professional organisation could greatly assist in the promotion of the program. Existing programs should be explored to identify potential partners in this enterprise.
Develop training for employers to assist in project development and assessment	The project group should identify areas requiring professional development for employers and academics, and seek appropriate means of implementing these processes. These could include basic workplace health and safety issues, insurance, ethics and responsibilities as well as guides for mentoring and assessing student workers.
Help with supervision procedures	The project group could also contribute to the design of good practice procedures to ensure the best interests of all stakeholders are met, including appropriate and responsible supervision of work practices and project performance. This bridges the elements of HR practicalities and academic requirements.
Establish communication procedures to project coordinators and mentors	An essential part of the project design is the mechanism for clear and simple communication pathways between all parties involved in the activity. All significant communication should be recorded for evaluation purposes. There should be a clear distinction between the academic and administrative responsibilities of the university staff.
Evaluate and review program	Evaluation and review procedures should be built into the program to ensure it continues to meet the changing needs of the range of stakeholders.

