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This paper describes a professional staff development program for academic and industry supervisors that is being developed under the auspices of the Australian Cooperative Education Society (ACES). The program will cover a range of skills to assist supervisors in understanding and managing the mentoring process during work-integrated-learning including an understanding of student learning in the workplace; understanding workplace relationships and the impact of issues such as culture, employment policies and practices; and performance appraisal and evaluation.

PROJECT CONTEXT AND RATIONALE

Work-integrated-learning is a powerful method of learning.

Work-integrated-learning is a strategy for applied learning that integrates the rigor of an accredited academic program with periods of supervised and relevant experience in the workplace. In the 90 years since work-integrated-learning programs were first introduced, the outstanding benefits to students have been well documented (for example, Ashworth & Saxton, 1992; Shaw, 1992; Gorman & Scott, 1996).

Work-integrated-learning provides a context for learning—after even their first work placement students engage in a different form of learning, one that is informed by their understanding of the work place and of their future role in it. They appreciate the critical importance of generic skills such as teamwork and communication—things that they may have previously perceived as being peripheral or “soft”. By having to expand their skill set and knowledge base to complete their work tasks, they develop the skills and attitudes for lifelong learning. Through application, students develop an understanding and mastery of previously abstract theory. And they are exposed to a different culture—one that is driven by outcomes, tight timelines, and commercial interests.

Currently, approximately 20 of Australia’s 38 publicly funded universities offer work-integrated-learning programs. These programs currently involve more than 10,000 students and over 3000 employers. In 1996, Australian WIL students earned in excess of $A60 million. The programs cover a broad range of disciplines from engineering and business to journalism and sports medicine. And there is significant potential for further growth. The DETYA-funded National Review of Engineering Education (The Institution of Engineers, Australia, 1996), for example, lauded the effectiveness of Co-op engineering programs and recommended that the number of such programs be increased. The Discipline Review of Computing Studies and Information Sciences Education (Hudson, 1992) made similar recommendations.

While no one would suggest that work-integrated-learning is a panacea, such programs are undoubtedly a powerful method of learning and represent a significant and valuable feature in the Australian higher education landscape.

The effectiveness of work-integrated-learning depends to a major extent on the role of the academic and industry supervisors.

A key element of work-integrated-learning is that each student has both an academic and industry supervisor. The supervisors play a crucial role in integrating the university and workplace experiences and in facilitating student learning while on the job. Without them, work-integrated-learning is little more than just “work experience”. However, studies have shown that both academic and industry supervisors are, in general, poorly prepared for their roles. Few have had previous experience with such programs. Few have been trained in the core supervision skills (such as mentoring, performance evaluation, and conflict resolution). Few have been adequately orientated to the other environment (academia/industry). Few have had their eyes opened to the full spectrum of learning opportunities than can be exploited while students are working in industry (such as analyzing the gender politics of traditionally male-dominated engineering organizations).

1 Work-Integrated-Learning includes a wide range of models of integrated study and employment and is being used in preference to the narrower term “Cooperative Education.”
academic supervisors as one of the most serious deficiencies of work-integrated-learning programs. The Australian Cooperative Education Society (ACES) has undertaken to become the "guardian" of the program and to offer appropriate in-service training be made available to all academic staff and industry supervisors directly involved with industrial experience placements in order to "maximize their learning potential". MacFarlane (1996) concluded, "there is a lack of tools for the professional development of coordinators to ensure that they have the skills to successfully deal with critical situations they may encounter".

Most WIL universities provide their academic supervisors with a guide booklet and perhaps a brief orientation for first-timers. The preparation for industry supervisors is even more scant, usually restricted to a guide booklet at most.

To our knowledge, there is no comprehensive staff development program in any Australian university that identifies the skills required of WIL supervisors and then sets out to develop these professionally and comprehensively. In many cases, the development of such a program is simply beyond the resources of an individual faculty or institution.

A NATIONAL STAFF DEVELOPMENT PROGRAM

Four Australian universities (Central Queensland University, RMIT University, Swinburne University of Technology, and the University of Wollongong) with $A100,000 of funding provided by the Australian Government through the Committee for University Teaching and Staff Development (CUTSD), have set out to develop a comprehensive staff development program for academic and industry supervisors.

The program will cover a range of skills to assist supervisors in understanding and managing the mentoring process during work-integrated-learning including an understanding of student learning in the workplace; workplace relationships; the impact of issues such as cultures, employment policies and practices; and performance appraisal and evaluations. A comprehensive set of learning resources (including case studies and video scenarios) are being developed specifically for the work-integrated-learning context.

The program will be piloted at two Melbourne universities during 1999, then offered nationally in 2000 to all universities involved in work-integrated-learning. The Australian Cooperative Education Society (ACES) has undertaken to become the "guardian" of the program and to offer it on a cost-recovery basis in subsequent years.

STRATEGIC IMPORTANCE

Work-integrated-learning programs are special. They provide students with a definite edge in the competitive graduate employment market and (usually) financial support while they are studying—as a result, these programs typically attract the top students. They provide a mechanism by which industry can contribute to curriculum development, keeping programs up to date and relevant to the real world.
They also form a vital link between the university and industry, opening up opportunities for consulting, research and technology transfer. It is therefore not surprising to find that work-integrated-learning features prominently in the strategic plans of those universities who have adopted the pedagogy. For example, at Central Queensland University the co-op engineering degree is regarded as one of the University's premier programs and there is a strategic intent to extend the model to other disciplines. At Swinburne University of Technology, the 1996 strategic plan declared that "Industry-Based-Learning must be seen as at the core of the University".

In an increasingly competitive higher education environment, universities must continually develop and improve their programs—particularly those that give them a competitive advantage in the marketplace. Furthermore, with students becoming more discerning, universities are finding more consumer pressure to deliver on program outcomes. With the quality of supervision being one of the strongest determinants of the quality of a WIL program, staff development for WIL supervisors is of strategic importance for those universities heavily involved in work-integrated-learning.

From the point of view of the Australian Cooperative Education Society, this project is a move by the association to re-establish itself at the national level. Over the past 18 months, ACES has been looking at the value that it adds to the WIL system in Australia and developing a strategy for the future. Figure 1 shows the results of a stakeholder analysis undertaken by ACES. Possible functions/services/activities that could be undertaken by ACES are categorized according to their objective (quality, networking, or marketing) and the level at which the benefit is directed (system, organization, or individual). In order to re-establish the association at the national level, ACES believes that it must focus initially on addressing system-wide issues. This national staff development program is such an initiative.

**QUALITY NETWORKING MARKETING**

**SYSTEM**
- Certification of programs
- Staff development
- International linkages

**ORGANISATION**
- Benchmarking/info sharing
- National WIL web site
- Directory of WIL programs
- Generic brochures
- Industry breakfasts, etc.

**INDIVIDUAL**
- Australasian Journal of WIL
- Australasian WIL Awards
- State chapter meetings

**Figure 1 Possible functions/services/activities of the Australian Cooperative Education Society** (bullets show recent activities of state chapters, stars show current national priorities).

MANAGEMENT AND DEVELOPMENT OF THE PROJECT

The project is managed by the Project Management Group (consisting of the four authors of this paper). A Project Advisory Committee has been established to broaden input into the project. It will meet five times during the two-year project and consists of WIL students, academic supervisors, industry supervisors, and WIL coordinators.

The development process that will be followed for the project is shown in Figure 2. Two complete Needs-Development-Delivery-Evaluation cycles will be completed during the project, one during the pilot stage and one during the national implementation stage.

A Job Needs Analysis (JNA) is currently being undertaken in order to define accurately the roles of academic and industry supervisors. This information will be collected using focus groups, on-the-job observation, and interviews with WIL students, academic supervisors, and industry supervisors. The outcomes from the JNA will be...
expected outcomes

It is expected that this project will produce the following five outcomes:

1) As a result of the needs analysis, there will be a better understanding of the role of academic and industry supervisors in work-integrated-learning, the skills they require in order to perform their roles effectively, and of the training required to develop these skills.

2) A professional staff development program will be developed for academic and industry supervisors. This program will address the wide range of skills required and will contain a comprehensive set of resources (including case studies and video scenarios) developed specifically for the work-integrated-learning context.

3) Academic and industry supervisors around Australia will have had the chance to participate in the first offering of this staff development program.

4) As a result of this training, there will be an improvement in the proficiency of academic and industry supervisors, and a consequent and demonstrable improvement in the learning outcomes of their WIL students.

5) The staff development program will be placed under the guardianship of ACES who have undertaken to offer the program on a cost-recovery basis in subsequent years.

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