Managing Experiential Education: Work-Integrated Learning in the Context of a Cost-Benefit Analysis

Kenneth C. Bennett, Griffith University

Abstract

Higher education has become both more accessible and better integrated across the world. This has seen higher education evolving to become both an industry sector and an industry in and of itself. Higher education has subsequently become more cognizant of ‘market demands’ and is increasingly reflecting this in teaching, learning and administration practice. The result has been a greater recognition of prevailing economic environment considerations and, the requirement for graduates who are better attuned to the actual situations and circumstances of employment (Joshi, 2005; Pearson & Beasley, 1998).

This paper will discuss the relevancy of a traditional cost-benefit analysis to the management, decision-making and practice of work-integrated learning in higher education institutions and, posit methodologies for value measurement and how components of perceived benefit and values are capable of being quantified and applied to management decision-making evaluation.

Index Terms – experiential education, cost benefit analysis, rate of return, management indicators, value measurement

In order to both maintain academic rigor and simultaneously develop better ‘job-ready’ graduates, experiential learning is coming to the fore as a popular complementary teaching and learning methodology (Mintzberg, 2005; Orrell, 2005; Zlotkowski, 1996). Mirroring this increased market focus for higher education, the inclusion of experiential education into curricula has additionally emerged as a point of comparative and competitive difference between higher education institutions (Dewar, 2006). In Australia, since the early part of this decade in particular, in order to both meet market demands and remain nationally and internationally competitive, there has been an increased emphasis on developing areas of experiential education – inclusive of cooperative education programs and work-integrated learning activities (Dawkins, 1988; Hare, 2008; Mathews, 2001; McRae & Baldwin, 2004).

The literature fundamentally acknowledges experiential education (work-integrated learning in particular) for its qualitative value (sic benefits) in many academic discipline areas (Flinders University, 2002), especially in terms of facilitating workplace readiness for graduates. However, due to the inordinate number of attributed intangible benefits for this type of learning, there is an inherent difficulty in monetizing many of the (intangible) benefits and outcomes of experiential education – especially when economic imperatives are present and/or fluid. This makes the effective management of work-integrated learning problematic in terms of budget allocation and, the establishment of uniform best practice benchmarks correspondingly difficult.

With management decision-making often focused around ‘Return-On-Investment’ (ROI) outcomes, the ‘R’ (Return) has subsequently been subjective, situational and often inconsistent while the ‘I’ (Investment) is normally focused on accepted monetary-based criteria.

Hence, to date, the quantification of the value of work-integrated learning in higher education has not been substantially validated in terms of robust management decision-making tools, such as cost-benefit analysis; with more common the use of less rigorous, more subjective, cost-effectiveness or cost-allocation methodologies (Bennett, 2005b).

In practice, intangible benefits such as knowledge gained, skills acquired, confidence/self-efficacy and, often emotive-based individual and societal end results, can have their subjective value measured qualitatively without the added, often complex step of monetizing them (Lambur, Rajgopal, Cox & Ellerbrock, 2003). This has the potential to satisfy cost-effectiveness or cost-allocation decision-making processes that require indicative rather than definitive direction.

Definitive direction, however, is the preferred option in the modern higher education industry as it is emerging today. As the intent, role and impact of experiential education in the higher education sector increases, so does the necessity for independent budgeting review and realistic cost-to-benefit evaluation. Management and administration requirements, inclusive of budgeting and staffing mechanisms in the
modern education industry, often requires a more quantitative metric validation in order to both legitimize and secure relevant funding, resources and longer-term institutional policy support (Bennett, 2005a; Orrell, 2005).

Investigation into management decision-making processes in regards to work-integrated learning indicates that rational analysis, strong statistical outcomes or commonly agreed metrics have not been the primary factors utilized in higher education (Hough, 1993; Lazarus & Oloroso, 2004). Decisions, instead, have been based in many instances on less than rigorous methodologies – often unsupported by independent quantitative data that lend consistency and validity to any decision-making (Bennett, 2005a, 2005b).

Investigation further indicates that the management and administration of work-integrated learning has been essentially – qualitatively – determined on an individual institution’s subjective factors, broad comparative management indicators and tacit elements (Bennett, 2004). In short, the role of analysis and influence of vested interests and subjective values in work-integrated learning policy, management and decision-making – and correspondingly funding and resource allocations – have been conducted largely through subjective perception of popularity and emotive response indicators, rather than on more reliable independently verifiable and quantifiable factors. Therefore, determining the benefits of education “involves philosophical issues relating to the purposes of education and how to assess whether these are being achieved” (Hough, 1993. p. 11).

With the globalization of the higher education sector, the modern-day institution is not the isolated ‘ivory tower’ of the past century, and sees knowledge and education as some of its primary ‘products’. As Lazarus and Oloroso (2004) note, good management and administrative principles and practice are as important in higher education as in any other industry sector. Given that higher education is evolving in itself to be more professionally-oriented, like other ‘businesses’, some form of independent validation is required in order to legitimize budgeting and resource allocation. In attempting to achieve this validation, the practice of an extensive use of an extensive use of often prescriptive and biased management indicators can prove problematic, inconsistent and incorrect over time.

Management indicators are defined by what they are not: they are not definitive statements “about what aspects of an organization’s program are doing well or poorly, nor do they themselves provide solutions to problems” (Neves, Wolf & Benton, 1986, p. 129). As such, management indicators “focus management attentions to those areas critical to efficient and effective program operations” (Bowers & Bowers, 1983, p. 4). Management indicators are therefore not to be defined as answers. They are, as noted, to be understood as possible subjective and biased indicators of practice and values and, hence, possibly not valid measures of the true management effectiveness of experiential education.

Is ‘Good’ WIL Sufficient

The ‘proper’ use of resources (cost-allocation) does not mean the ultimate effectiveness of these selfsame resources. Allocating resources based upon indicators rather than answers is, additionally, not an absolute substitute for the independent determination of the effectiveness of the resource allocated (cost-effectiveness). The inherent value associated with the use or allocation of resources should also be taken into consideration. As noted by Baron (1997), the idea of values is that, “we have some sort of ultimate standards by which we evaluate states of affairs”, and “we define our good in terms of these standards. In most cases, we have difficulty applying these standards because we lack information about how to apply them to the objects we are asked to evaluate” (p. 74).

Allocation of resources towards work-integrated learning activities is under the same influences. Given the wide variety of work-integrated learning types and situational influences and inferences, ‘best practice’ in the area is becoming increasingly subjective, with ‘good practice’ norms more readily accepted (Bennett, 2004). Subsequently, determining both the key elements and the relative return-on-investment (ROI) of experiential education is not without issue: determining value to a higher education institution is often situational and subject to circumstantially subjective factors and influences, the prevailing economic environment notwithstanding.

This is not to say that independent quantitative analysis for experiential education can be achieved without its own limitations, as standards of values are largely subjective in individual practice as well. Measuring individual and social costs and benefits and, also defining the time horizon for educational investment returns in higher education, can be conducted through the use of accepted decision-making tools such as a cost-benefit analysis (Dunn & Sullins, 1982). But, what has yet to be determined with work-integrated learning in particular in higher education is, if the benefit is worth the cost to an institution over an extended period of time. And, is this benefit then worth the cost to an institution without the act of restrictively applying a cost-benefit analysis as a single-dimensional test of desirability and/or value assumption?

In the present Australian economic environment the management and administrative practices surrounding
experiential education have to begin to realize not only the cost of effective practice but, also be able to verify and validate substantive benefits in both the contextualization of educational practice and, in general budgetary contexts as well. While there are recognized ways of measuring psychological or other subjective goal variables (Angner, 2006a, 2006b), the inclusion of ‘best practice’ in public sector management (FBR, 1997; NPC, 1997) requires more defined quantitative analysis. This is of distinct importance in today’s modern higher education industry, especially in resource-intensive experiential education activities, where the ROI can be widely interpreted and subjugated to meet the fiscal urgencies of the day. The ‘R-return’ should reflect the total ‘benefits’ (inclusive of both tangible and intangible elements) to an organization and, as a result more realistically reflect the true ‘cost’ of an activity or a group of activities. This, however, may not be the case.

Australian higher education, for a significant proportion of their operating budgets, relies upon funding from its federal government. After an extended era of overriding economic rationalism, sector-wide the ratio of government-to-other funding has significantly declined over the past several years (Nelson, 2002a, 2002b; NTEU, 2004; University of Tasmania, 2004). Correspondingly, while there has been an increase in interest and activity in experiential education, government funding models in regards to experiential education have apparently taken a fairly restrictive econometric approach in the funding work-integrated learning activities in higher education (DEST 2005). This policy has negatively affected some institutions’ funding and, subsequently, resulted in the questioning of the financial viability of including work-integrated learning in their curriculum.

With funding sources being put under pressure, the simple refining of methodologies to suit subjective goals in Australian higher education is not sufficient. What is now required is the adaptation of accepted metrics to work-integrated learning and cooperative education that will provide valid ROI information that is accepted across the sector and by policy makers – internal and external. Doing this provides a foundation for valid and defendable decision-making: primarily utilizing metrics, not exclusively reliant upon emotion, vested interest or biased value judgment.

**Normative and Positive Considerations – Metrics or Mantra**

A cost-benefit analysis is a systematic, quantitative method of assessing the life cycle costs and benefits of competing alternative approaches, activities and methodologies. This includes determining which one of the alternatives is best (Sassone & Schaffer, 1978).

In the higher education context, given fixed or limited resources, this can mean the allocation of funding and resources between conventional and work-integrated learning, between types of experiential education, or even between the allocation of resources to plant and machinery versus teaching and learning.

Scholars have been debating the exact techniques for making cost-benefit analysis assessments since the 1950s. The economics of modern education centered early around the monetary investment in education, and the respective ‘rate-of-return’ (ROR) on this investment (Hough, 1993). Analysis, subsequently engaged three primary ways of presenting ROR or cost-benefit analysis: firstly by a benefit-to-cost ratio; secondly by a calculation of the present perceived net value of the work-integrated learning activity; and, thirdly the most by calculating the internal rate of return – the ROR – of the investment, with this last analysis representing the most popular method in education. All these forms of analysis, however, contain the step of monetizing both inputs (resources) and outcomes (benefits). In determining the return on experiential education activities, issues arise when intangible benefits are to be included. Subsequently, with the concept and value of a ‘return’ being fluid, the concept of ‘return-on-investment’ (ROI) rather than a rate-of-return alone is emerging as a more institutionally subjective and accepted category of measurement.

In many areas of business, management and economics there has been general agreement, if not consensus, on how to treat many of the difficult analytical issues (Portney, 1999), with this model in wide use. Higher education, as an industry and as individual institutions, has also developed accepted metrics which permit valid economic decision-making to take place, inclusive of such factors as student-to-teacher ratios, class sizes, and so on. With the budgeting models for work-integrated learning and other forms of experiential education, however, ‘social’ costs and benefits have also to be considered. Subsequently, the ratio of identified intangible to definable tangible benefits that can receive consideration make metrics problematic in many instances of management decision-making: the value of these often indeterminate benefits are often fluid, subjective and open to interpretation.

With the various elements of good teaching practice, student learning outcomes, external (public) stakeholder priorities and relationships not valued in a common metric, often decisions are based on the net monetized difference if emotive elements are not included. A second common problem in introducing and maintaining good work-integrated learning is that with some activities, gaps in knowledge and data requirements *longitudinally* make using benefit-cost
analysis in real world decision-making difficult. Simply, the effects or relevance over time – often intangible – are not included in many areas of evaluating the benefits of work-integrated learning in the teaching and learning context. What has to also be included, therefore, are the identified limitations or criticisms of the evaluation method, such as the tendency to use of situational cross section data rather than longitudinal data (Hough, 1993) which can invalidate using a cost-benefit analysis as an effective decision-making tool.

Balancing perception and associated bias with economic reality over extended periods is an ongoing responsibility of educational managers and administrators. This can be especially pertinent in the areas of work-integrated learning and cooperative education which, by its nature, can demand resources (‘I-investment’) in excess to that utilized in conventional teaching and learning methodologies (Bennett, 2004). The question is, however, what are the roles of analysis and emotive vested interests in actual budgeting and policymaking (Gramlich, 2002), and how to remove bias from higher education institutions’ experiential education funding models?

Following this are then the subsequent administrative steps necessary to introduce validation in the form of some sort of cost analysis in support of the teaching and learning method(s) being proposed, and the respective and expected return-on-investment (ROI).

**Measuring the Value of Experiential Education: Decisions and Judgment Calls**

In measuring experiential education and developing metrics against which real and realistic ROI can be inferred is not an easy task. Given the varying degrees and dimensions under which work-integrated learning in particular is viewed across the world and across higher education institutions, determining both ‘value’ and comparative ‘good practice’ has many perceptions, interpretations and applications. Underlying this are the tangible and intangible elements, as well as the tacit elements and attributes – all relating to any and all benefits derived from this type of learning. The differences in ranking/rating quantitative and qualitative aspects highlight the differential between the more easily recognizable tangible benefits against the more difficult to monetize intangible aspects – tacit elements notwithstanding.

Good practice and valid decision-making require measurement of a host of subjective values for specific (often intangible and longer-term) consequences. These measurements are normally constructed and performed in ways that permits respective consequences to be compared quantitatively to other – normally tangible – costs and benefits. Again, normal methodologies to measure values can be highly subjective, and influenced by budgetary, economic, societal, political, legislative influences and as well by environmental or situational imperatives. By providing more easily gathered and understood comparative metrics, quantitative value measurement is often the primary measurement used to decide if (and what) a particular benefit, or group of benefits, is worth in monetary terms. Significant to experiential education, as noted by Baron (1997), the term ‘quantitative’ can additionally be used to include measurement of general utility to a particular organization or decision-making process and can be utilized when work-integrated ROI is being considered.

Difficult, yes, but by identifying ‘utility’ and its respective value to a specific organization, the development of accepted metrics to use in the management of experiential education can begin and an accepted ‘R’ (return) can be developed. Commonly utilized in the higher education industry and in educational programs to determine a form of ROI, there are usually three types of cost analysis used in organizational evaluation and policymaking: Cost allocation, cost-effectiveness, and to a lesser extent the more complex but consequently more rigorous cost-benefit analysis. Representing a continuum of types of cost analysis they range from fairly simple program-level methods to highly technical and specialized methods (Sewell & Marczak, 1994), with cost-benefit analysis comparatively the most complex:

- **Cost allocation** is a comparatively simple concept of setting up budgeting and accounting systems in a way that allows determination of a unit cost or cost per unit of service for a specific activity.
- **Cost-effectiveness analysis** assumes that a certain benefit or outcome is desired, and that there are several alternative ways to achieve it. Cost-effectiveness analysis is comparative in evaluating the more efficient or cost effective alternatives of achieving nominated goals.
- **Cost-benefit analysis** has the economic benefits of providing an activity being compared against the economic costs of delivering said activity. In a cost-benefit analysis, the overall importance of continuing an activity is considered, with the total monetary cost of the benefits or outcomes divided by the total monetary costs of obtaining them.

Essentially, all cost-benefit analyses use direct expenditures as ‘roadmap’ measures of true social costs. Often with work-integrated learning activities, the provision of services or resource is not exclusively the choice of one alternative or another. It can often also include the provision of the intensity of an alternative, or range of alternatives, over others which may, or may not, be best served exclusively through a
cost-benefit analysis. Key to all cost-benefit analyses is, therefore, establishing value or utility. Value measurement in itself can take several forms and can either use cost (money) or utility as the standard and can, in many instances, be later incorporated into more sophisticated cost-benefit analysis. In practice, there are four primary approaches for measuring values that can be used with experiential education. These approaches include direct utility measurement, multi-attribute analysis, contingent valuation and the value assignment method:

Direct utility measurement refers to a class of methods that rates and compares time and workload tradeoffs, using not the monetary value as the standards, but factors such as time or perceived effort (manpower) (Baron, 1997). Developed from methods used in health and medicine, instead of essentially relying upon the monetizing of activities, direct utility measurement rates or provides attribute/outcome tradeoffs (person and time), and also can take into account ‘standard gambles’ or the likelihood of events occurring. In experiential education this may include such as academic supervision capabilities and capacities of existing staff against numbers of students requiring supervision.

A comparatively rigorous method to direct utility measurement, multi-attribute analysis is related to both conjoint analysis and functional measurement and has a foundation derived from mathematical psychology of measurement theory (Baron, 1997). Psychology, operations research, economics, statistics and mathematics have all influenced this method’s development, and are reflected in construct and practice. Multi-attribute analysis provide trade-off functions for several attributes, one or more of which could be monetary (Keeney, 1992; Von Winterfeldt & Edwards, 1986). The ultimate dimension used for decision-making is, however, ‘utility’ rather than money (costs). Utility is defined in various ways, but in higher education can be regarded to be an interval money (costs). Utility is defined in various ways, but factors such as time or perceived effort (manpower) (Baron, 1997). Developed from methods used in health and medicine, instead of essentially relying upon the monetizing of activities, direct utility measurement rates or provides attribute/outcome tradeoffs (person and time), and also can take into account ‘standard gambles’ or the likelihood of events occurring. In experiential education this may include such aspects as academic supervision capabilities and capacities of existing staff against numbers of students requiring supervision.

A further subjective methodology, the value assignment method also has the potential to identify an attribute perceived of value to a specific organization or type of organization, and subsequently assessed. Value assignment observes how potential stakeholders or participants can view the value of work-integrated learning as a component of their course of study, and then allocate in decision-making an identified premium to the activity.

Measuring Intangibles

The literature in the area of cost-benefit analysis of work-integrated learning is comparatively limited when compared to other areas of education or higher
education management and administration, and public sector management as a whole (Whalen & Wright, 1999). While costs of work-integrated learning are identifiable, benefits are often subjective to a particular institution, and are subject to existing internal and, to a lesser degree, external political and/or financial situations. Overall, however, it is a common precept that work-integrated learning is intrinsically beneficial in student learning, and this is indicated in both the literature and from dialogue with practitioners in the field (Bennett 2005a; Flinders University, 2002).

Intangible benefits are, however, harder to measure, but are a primary decision-making criteria for educational managers in Australian higher education (Orrell, 2006). An initial review of policy development, both at the institutional level across higher education institutions in Australia and at Australian Government decision-making level (Bennett, 2003), supports this. The review indicated that intangible benefits are largely difficult to quantify for cost-benefit purposes, especially in the context of ‘public good’ measurement common for government-subsidized Australian higher education where goals are to both improve efficiency and to improve equity: A policy is said to be efficient if it maximizes the total net benefits (benefits less costs) available to society, independent of who receives the net benefits. Equity, on the other hand, is not concerned with the ‘size of the pie’, but on how the pie is distributed among the members of society. Cost-benefit analysis has traditionally been focused on efficiency - on providing policy makers with an indication of the magnitude of net benefits associated with a particular project or policy. Although cost-benefit analysis is not specifically designed as a tool for evaluating equity, the cost-benefit analyst should also track the distribution of costs and benefits among the various segments of society. (NCEDR, 2003, p. 1).

Intangible benefits of work-integrated learning have been extensively documented in the literature (Martin, 1997; Orrell, 2006). But, the assigning of a metric or quantifiable value to work integrated learning aspects and outcomes have not been adequately documented. Compounding this, there is also fairly compelling evidence that the experience of work is not in itself intrinsically beneficial in students’ learning (Harvey, Geall & Moon, 1998).

Therefore, for learning to come from the experience of participating in work-integrated learning activities, activities must provide “a meaningful experience that is intentional, organized and accredited by the institution” (Gibson et al., 2002, p. 1). This is confirmed by Billet (2001), with workplaces being regarded as not exclusively “one-off sources of learning and knowing…..they constitute environments in which knowing and learning are co-constructed through ongoing and reciprocal processes” (p. 19). For most higher education institutions, however, to assure these processes is a costly exercise in financial, time and human resources (Hawke, Mawer, Connole & Solomon, 1998).

**Establishing the Value of Cost-Benefit Analysis in Work-Integrated Learning**

Therein the problem lies: often encompassing subjective positive attributes, and a host of intangible and tacit benefits, work-integrated learning may not be as highly regarded (or supported/funded) as other, more easily ROI-assessed teaching and learning methodologies in the management decision-making of experiential education. Research indicates that to achieve a high level of learning benefit, work-integrated learning necessitates an active participation and input by the individual convening and/or administering activities, and by the academic institution itself, in order to maximize the experience for students in the workplace (Bennett, 2004).

This research, conducted as part of a Strategic Review of Industry/Community Linked Partnership Courses/Activities across Griffith University’s Business Group from 2003 to 2005, indicated that while benefits of work-integrated learning are noted and encouraged by tertiary institutions, and universities in particular, the positive support and funding of these activities and the recognition of individuals convening/administering experiential education activities are often problematic. Hence, the cost of effective work-integrated learning outweighs perceived benefit for many university administrators and funding mechanisms within higher education institutions, if an economic rationalistic position is taken and ‘tangible’ benefits predominantly or exclusively utilized in the metrics.

Indeed, this issue has been raised in Australia in recent years. Policy formulation of the former Department of Education, Science and Technology (DEST) for ‘work experience in industry’ (sic work-integrated learning) has highlighted the need for higher education institutions to quantify, qualify and defend their allocation of government funding in relation to these type of activities. The principal funding agency for most of the nation’s higher education institutions, DEST (since December 2007 known as the Department of Education, Employment and Workplace Relations – DEEWR) introduced in 2005 policy for work experience in industry as conducted by higher education institutions. This, comparatively, strict
policy noted that if a unit of study meets criteria prescribed as ‘work’, “no student contribution amount or tuition fee can be charged” (DEST, 2007, p. 5). This direction of policy development reflects the perception that in work-integrated learning the teaching/learning component occurs extraneous to the university and, is a process rather than the product of an institution’s input. It also indicates, in terms of assigning costs and benefits, that a difference in perception exists between institutions and the Australian Government: While higher education institutions largely regard work-integrated learning as an academic exercise utilizing good teaching and learning practice, the Government (sic funding) viewpoint under the existing 2005 policy is that a workplace may not represent a primary learning place in direct connection to a degree or program of study if no significant academic direction, contact or content is incorporated.

This interpretation by the Australian Government is in apparent contrast to practice in the field which views work-integrated learning as an enhancement of student learning. As noted by the publishers of the Asia-Pacific Journal of Cooperative Education (APJCE, 2008), the definition of cooperative education is “the time spent in the workplace forms an integrated part of an academic program of study” (¶2), with this learning “developed and supervised either by an educational institution in collaboration with an employer or industry grouping, or by an employer or industry grouping in collaboration with an educational institution” (¶3).

Higher education institutions engaged in experiential educations view learning as not being exclusively reliant upon the physical location, but on how learners demonstrate attainment of skills, retention, proficiency, and mastery through some type of authentic assessment linked to their area of studies. This is rationale is affirmed by Linn (2000), who notes that:

Students should insist on learning both in the classroom and out in the world….learning is not “a one-way flow of knowledge from professor to student” but rather a discourse between the learner and the learned, where students become legitimate participants in the world. (p. C04)

The interpretation by the Australian Government (DEST/DEEWR) in the consideration of funding work-integrated learning brings to bear the realization that the benefits and costs of work-integrated learning in industry are actually opposite sides of the same educational coin. This leads to two significant, different, and respective challenges, that both higher education institutions and funding agencies should be aware of and, which should be considered as mutual elements in any decision-making:

- Firstly, as apparently considered by the Australian Government (DEST/DEEWR), economic thought dictates that benefits are to be measured by the willingness of individuals (higher education funding agencies/units) to pay for the outputs of the learning activity in question, and not by the overall utility of an activity.
- Secondly, as apparently proposed by practitioners in the field, work-integrated learning activities – like most types of education – inherently produce streams of benefits and costs over time rather than exclusively in the immediate term.

In line with this second challenge, influencing work-integrated learning activities and their active support within educational institutions is the inclusion of longitudinal data. Key is the issue that a substantial portion of related costs are incurred early in the planning, development and pilot stages of an activity, while any benefits may extend over a period of years and, may also incur after a significant time delay. Institutional and political planning tends to look for shorter-term outcomes and quantifiable benefits, with the import and perceived impact of benefits often subjective to the different players and stakeholders involved – students, employers, placement coordinators, academic staff members, and academic managers (Coll & Chapman, 2000).

How do we then determine the willingness to pay for the favorable effects of work-integrated learning for all the various stakeholders; students, universities, and industry and government partners; and, the net effects on identified stakeholders that is inclusive of the tangible and intangible benefits of work-integrated learning? One of the answers to this complex question is to investigate how can cost-benefit analyses can be adapted to suit experiential education and, work-integrated learning in particular. And, when doing this, not unduly rely on simplistic – and often unrealistic – cost allocation or cost-effectiveness methodologies.

Conclusions

In consideration of initiating, enhancing, expanding or even continuing work-integrated learning for higher education institutions, the decision-making process often relies on a simplified cost-benefit analysis, with the best alternative either being the course, program or activity with the most accrued benefits (when the costs are the same for all alternatives) or, the course, program or activity with the lowest cost (when the benefits are the same for all alternatives). The reality of the situation is, under the normal higher education funding schema, the preparation, administration and delivery of work-integrated learning courses are
viewed (in Australia) as being comparatively high-cost teaching/learning methods as against traditional ‘chalk and talk’ type courses (Orrell, 2005). Assigning the full benefit to work-integrated learning activities in an economic rationalist environment is subsequently difficult, as both perceived value and learning outcomes of work-integrated learning courses are problematic, situational and heavily skewed towards hard-to-measure intangible benefits (Bennett, 2005b).

As demonstrated, the benefits of work-integrated learning are not ‘straight-line’ nor simplistic in that there are may a host of variables that must be taken into account over and above the facilitation of learning that take place. That work-integrated learning is beneficial to the participating student, placement organization or institution is largely not in dispute (Cooper, Orrell & Bowden, 2003); the extent of any accrued benefits and their relative and respective cost to a particular institution (ROI) or funding agency, is.

Determining objective ROI, or even ROR, in experiential education is often problematic. Making decisions about work-integrated activities involves a degree of uncertainty, as with most decision-making processes. Higher education institutions are, given the multiple influences and influencers involved, also understandably resistant to trial and error activities. These institutions are, additionally, risk adverse in decision-making processes when work-integrated learning is considered given the comparatively higher monetary costs of ‘good practice’ delivery (Bennett, 2005b). A further factor is that with benefits of work-integrated activities being in many instances intangible and difficult to monetize, the practical measurement of benefits and costs is in many institutions a ‘grey’ area, and any ROI then has the tendency to become more metric than meaningful.

Adding to any uncertainty as well, the implicit value of incommensurables – the intangible and tacit benefits – may differ between individuals, administrations and institutions at different times. Subsequently, depending upon the professional and personal orientation of individual decision-makers, the assigning a value (and cost) to any intangible benefits can be problematic; additionally tacit variables have consequences outside the frame of reference of simple teaching and learning, such as differing academic discipline areas, local socio-economic factors, and so on.

It is therefore essential for the manager or administrator in higher education to adapt their frame of reference to encompass these consequences and respective variables. To achieve this it is essential to, initially, conceptualize and then determine indicators for specific elements, factors or features of work-integrated learning that are accepted over longer-term periods – not only in the immediate term.

Furthermore, the validity of selected indicators must be adequately and comparatively assessed so that real and realistic good practice and valid ROI (or ROR) can be achieved.

Intangibles should also receive due consideration: It is often the costing of secondary or intangible outcomes where difficulties arise in the management and administration of work-integrated learning. Indirect costs are represented in many cases by opportunity costs to an individual or funding entity. In higher education, indirect costs are often resources not actually budgeted for or assigned to the program, but can represent a withdrawal of resources from the institution that allows them teaching and learning practice to operate. Examples in work-integrated learning can be academic supervision of programs or teaching allocations, or can, in the extreme, represent through policy changes the Government’s indirect and direct reduction of student funding in relation to work-integrated learning activities (DEST, 2007).

In assigning a value or utility, benefits of work-integrated learning – all positive outcomes or consequences – while difficult to measure are, at the same time fairly easy to recognize and can contribute positively to both student learning and a university’s community interaction (Harvey, Geall & Moon, 1998). In work-integrated learning these benefits can be as wide-ranging as job-readiness, graduate placement or even student self-efficacy or confidence levels. Additionally, given the very nature of work-integrated learning, the secondary outcomes or consequences of activities or programs that may accrue to both direct participants/stakeholders and non-participants – inclusive of society in general – bear consideration as well. In review, tacit acceptance by those managing and funding experiential education is not sufficient. Consequently, efforts to establish a value for these activities which then can be quantitatively assessed and utilized – in a valid and recognized decision-making methodology such as a formal cost-benefit analysis – requires consideration.

Valid, independent decision-making necessitates defendable benefits – especially given the intangible benefits in the context of experiential education. These benefits must be compared against costs and resource implications and be included across the spectrum of subjective and common factors and events. While the perception is that benefit-cost analysis is a flexible and comprehensive framework for considering information, it can often only provide a shorter-term snapshot and not present itself as a viable tool if incremental factors are not included and longitudinal data considered. Indications are that an element of good practice in applying a cost-benefit analysis in work-integrated learning requires recognition of incremental change in marginal costs as events and
inputs are considered over time (Gramlich, 2002).

Cost-benefit analysis in higher education has, therefore, its limitations when the various variables, both tangible and intangible, are introduced in the context of work-integrated learning. With anticipated rates of return in experiential education having the potential to encompass social, private, average or marginal aspects of a teaching and learning activity, the cost-benefit analysis method has outcomes that are usually more indicative of direction rather than specific in the amount that should be invested (Hough, 1993). However, even if taking this factor into consideration, cost-benefit analysis (with proper value input) can offer a better quantitative metric than either the more commonly used cost-allocation or cost-effectiveness analyses can provide.

The ‘bottom line’ of a cost-benefit analysis is that it can deliver tangible and credible facts that decision-makers in higher education need to make when including, expanding or even discontinuing work-integrated learning activities (Michael, 1998). A cost-benefit analysis is a strategic technical exercise involving a systematic, quantitative method of assessing the costs and benefits of competing alternative approaches. By measuring individual and social costs and benefits in the area of work-integrated learning events and factors, and defining the time horizon for educational investment returns for all the stakeholders involved, a viable and valid determination of the subjective and respective value to an institution can be better defined – and decisions validly defended in both academic and administrative arenas.

In conclusion, capturing the full impact and ROI of experiential education is contingent upon being able to validly measure all outcomes and benefits, both tangible and intangible. Key to note is that good practice in work-integrated learning is not just a methodology challenge: it is additionally a people and process challenge for a higher education institution. Managing experiential education means identifying and applying a realistic utility ‘value’ to both tangible and intangible elements and to take steps to include recognition of significant tacit elements as well. Facilitating this process, an applicable identification of the true value to a higher education institution for all accrued benefits over a realistic timeframe is required. Finally, then, an adaptive cost-benefit methodology can provide a valid way to quantify and defend the intangible benefits associated with work-integrated learning when situational influences and/or economic rationalist are present.

References


information – 2005. Canberra, Australia, DEST.


Canberra, Australia, DEST.


National Tertiary Education Union. (2004). Students pay (even) more universities get (even) less: An analysis of the funding of government subsidised
student places at Australian universities 1996 to 2003. Melbourne: NTEU.