

2011

## Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework

Jacqueline A. Mackaway

*Macquarie University, Australia, jacqueline.mackaway@mq.edu.au*

Theresa Winchester-Seeto

*Macquarie University, theresa.winchester-seeto@mq.edu.au*

Debra Coulson

*Macquarie University*

Marina Harvey

*Macquarie University*

Follow this and additional works at: <https://ro.uow.edu.au/jutlp>

---

### Recommended Citation

Mackaway, J. A., Winchester-Seeto, T., Coulson, D., & Harvey, M. (2011). Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework. *Journal of University Teaching & Learning Practice*, 8(3). <https://doi.org/10.53761/1.8.3.5>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

---

## Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework

### Abstract

Assessment of student learning in experience-based education is recognised as being a complex but important task. Practitioners are faced with a myriad of practical and pedagogical issues that influence what and how they assess, and can severely impact the effectiveness of assessment strategies.

This paper presents a synthesised overview of the literature about assessment of student learning that is usually discussed in dispersed arenas and under different headings, such as work-integrated learning, cooperative education, practicum, project-based learning and service-learning etc. The term Learning through Participation (LTP) is introduced to cover all of these areas, but especially those where students undertake experiences and placements that incorporate community engagement and which are based within the curriculum.

The literature in this area highlights a number of issues that add layers to the complexity of assessment of LTP. The synthesis presented herein discusses questions of validity, objective verification of learning, the roles and expectations of various stakeholders in the process of assessment, and the role and purpose of reflection in learning and assessment. To assist practitioners a LTP Assessment Design Framework has been created, which guides academics through a consideration and analysis of the practical and pedagogical context of LTP and some of the most important issues. The framework consists of two parts. The first part involves the development of a Placement Profile, to better understand the operational conditions for which the assessment package must be designed, and the second part is a set of Guiding Questions about assessment and feedback.

### Keywords

participation, assessment of student learning, work integrated learning, service learning, cooperative education, experience-based education



2011

## Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework

Jacqueline A. Mackaway

*Macquarie University*, [jacqueline.mackaway@mq.edu.au](mailto:jacqueline.mackaway@mq.edu.au)

Theresa Winchester-Seeto

*Macquarie University*, [theresa.winchester-seeto@mq.edu.au](mailto:theresa.winchester-seeto@mq.edu.au)

Debra Coulson

*Macquarie University*

Marina Harvey

*Macquarie University*

Follow this and additional works at: <https://ro.uow.edu.au/jutlp>

---

### Recommended Citation

Mackaway, J. A., Winchester-Seeto, T., Coulson, D., & Harvey, M. (2011). Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework. *Journal of University Teaching & Learning Practice*, 8(3). <https://ro.uow.edu.au/jutlp/vol8/iss3/5>

Research Online is the open access institutional repository for the University of Wollongong. For further information contact the UOW Library: [research-pubs@uow.edu.au](mailto:research-pubs@uow.edu.au)

## **Practical and Pedagogical Aspects of Learning Through Participation: the LTP Assessment Design Framework**

### **Abstract**

Assessment of student learning in experience-based education is recognised as being a complex but important task. Practitioners are faced with a myriad of practical and pedagogical issues that influence what and how they assess, and can severely impact the effectiveness of assessment strategies.

This paper presents a synthesised overview of the literature about assessment of student learning that is usually discussed in dispersed arenas and under different headings, such as work-integrated learning, cooperative education, practicum, project-based learning and service-learning etc. The term Learning through Participation (LTP) is introduced to cover all of these areas, but especially those where students undertake experiences and placements that incorporate community engagement and which are based within the curriculum.

The literature in this area highlights a number of issues that add layers to the complexity of assessment of LTP. The synthesis presented herein discusses questions of validity, objective verification of learning, the roles and expectations of various stakeholders in the process of assessment, and the role and purpose of reflection in learning and assessment. To assist practitioners a LTP Assessment Design Framework has been created, which guides academics through a consideration and analysis of the practical and pedagogical context of LTP and some of the most important issues. The framework consists of two parts. The first part involves the development of a Placement Profile, to better understand the operational conditions for which the assessment package must be designed, and the second part is a set of Guiding Questions about assessment and feedback.

### **Keywords**

participation, assessment of student learning, work integrated learning, service learning, cooperative education, experience-based education

## Introduction

"...all genuine education comes about through experience" (Dewey, 1938, p25).

Over 60 years ago John Dewey recognised the necessity for education to value and embrace student experience. This sentiment is echoed by Andresen et al. (1999, p228), who go on to argue that "experience alone is not necessarily educative", pointing to the need for careful mediation by learners in order to gain maximum benefit from their experiences. For teachers designing curricula, this presents significant challenges in preparing students for, and helping them with, this quite different style of learning.

Assessment in experience-based learning is particularly challenging because it must address learning that is holistic in nature (Brodie & Irving 2007), it involves three parties – student, partner organisation and educational institution – and it attempts to measure learning in what many consider to be "softer skills" (Hodges et al. 2004), such as problem-solving and critical thinking. Many traditional methods of assessment are inadequate, particularly in terms of validity, and different approaches are necessary to ensure valid and reliable assessment of learning through experience.

In this paper we present a synthesised overview of the literature about assessment in experience-based education, usually discussed in dispersed arenas and under different headings. Using the literature as a source of evidence, it presents key themes and issues concerning student assessment in higher education. The paper explores how these matters influence assessment design, and based on the authors' findings, presents a framework for assessment design in the experience-based learning context.

We have coined the term "learning through participation" (LTP) to cover a range of curriculum-design options but, for the purpose of this paper, the term will refer to initiatives that have a component of community engagement, which could occur within the public, private or not-for-profit sectors, is based within the curriculum and requires assessment of student learning. Table 1 presents the definitions of some of the main areas of LTP; however, the terms are used widely and loosely, and overlap to a considerable degree.

Table 1: Definitions of the Four Main Areas of Learning through Participation

**Experience-based learning (or experiential learning):** "the distinguishing feature of experience-based learning is that the experience of the learner occupies central place in all considerations of teaching and learning" (Andresen et al. 1999, p225).

**Work-integrated learning (WIL):** "an umbrella term for a range of approaches and strategies that integrate theory with the practice of work within a purposefully designed curriculum" (Patrick et al. 2009, piv).

**Cooperative education:** "a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student's academic or career goals" (National Commission for Cooperative Education (2002), as cited by Groenewald 2004, p17).

**Service learning:** "a teaching strategy that enhances students' learning of academic content by engaging them in authentic activities in which they apply the content of the course to address identified needs in the local and broader community" (Furco 2001, p67).

## Method

An extensive, but not exhaustive, search of the literature on assessing student learning in various forms of LTP was undertaken. The authors searched for published papers covering the areas of: service learning, work-based learning, work-integrated learning, cooperative education, practicum, and project-based learning. Papers that reported research findings as well as practice-based reports and "how to" guides were sought, with approximately 60 publications consulted.

A grounded theory approach was used (as described by Flick 2006), with the aim of determining and documenting the main themes and issues around the topic of assessment of student learning that featured in published papers. Similarities and differences for the various forms of LTP were also noted. The authors examined the basis for research claims (for example, whether the research was an empirical study, a case study or practice-based reporting). This process was iterative, using a constant comparative method (as described by Thorn 2000).

The main purpose of the review was to determine the breadth of issues in this area, focusing on matters that LTP practitioners, particularly those new to LTP, need to consider in designing assessment. The key themes and issues were used by the authors to inform the development of resources to support those responsible for LTP assessment design.

## State of the Literature

There are several challenges with using the literature around LTP to determine common themes and issues related to assessment:

- A vast array of types of LTP programs exist, with local variations even within the same institution.
- The four main areas of LTP – WIL, work-based learning, cooperative education and service learning – each has its own research, literature base, history, traditions, influences, rationale and geographic nuances, all of which affect both the type of research questions and how they are pursued.
- The different types of LTP are at various stages of their cycle of maturation (Ziegart & McGoldrick 2004); this influences the main style of research undertaken, e.g. practice-based versus theory-based.
- As a consequence of these issues, some types of LTP and their characteristic curriculum and assessment practices dominate the literature.
- Disciplines and courses such as health and clinical sciences, education, engineering, law, hospitality, tourism and business have used LTP programs for a long time, and this affects the volume and nature of the research and literature.
- Many disciplines are under-represented in the LTP literature.

Research and reports specifically addressing assessment for and of learning within the higher-education LTP context were difficult to find, as others have reported (Bringle & Hatcher 2009; Coll et al. 2009; Dressler & Keeling 2004; Eyler 2000), although there are some exceptions (for instance where content-specific knowledge or skills are tested by external certification or accreditation bodies in disciplines such as law, business, and some within the health sciences, such as nursing).

A striking characteristic of the literature is the limited number of large-scale longitudinal research studies, such as those by Kiely (2005); Astin, Vogelgesang, Ikeda and Yee (2000); and Van Gyn, Branston, Cutt, Loken and Ricks (1997). These studies, all from the service-learning field, reveal the progression of research from a concentration on outcomes and benefits to student learning to the development of theoretical frameworks to underpin pedagogical practice. In stark contrast is the abundance of practice-based reporting from the work-integrated learning field, focused on practitioner descriptions of operational aspects and benefits of programs (Bartkus & Stull 2004). These types of reports offer value to LTP pedagogy, as they contribute to the development of "best practice" (Clarke & Burgess 2009), and serve to highlight the unique contextual nature of each LTP program, unit and student experience (Coll et al. 2009). The authors recognise that these "operational" variations introduce many factors that are not always associated with traditional classroom teaching, but they do play a significant role in shaping LTP assessment. This finding from the literature review informed the development of the *Placement Profile* presented later in this paper. This resource aims to help practitioners identify the operational factors that affect assessment design in their particular circumstances.

## Themes and Issues Affecting Assessment in LTP

"Assessment of student learning is possibly the most contentious and difficult area to get right in all levels of education" (Hodges et al. 2004, p50), and the assessment of student learning associated with LTP is especially difficult. Some would also argue that "despite assertions in the literature and governmental views, there are no simple solutions to the assessment of holistic learning experiences such as work placements" (Coll et al., 2002, p5). The literature in

this area highlights a number of issues that add layers to the complexity of assessment of LTP; these issues are described below.

## **Determining What Aspect of Learning to Assess**

Table 2 outlines some of the major purposes that LTP is claimed to fulfil. Different forms of LTP lay greater emphasis on different purposes, and the assessment practices for a particular course or unit of LTP "will differ according to the value placed on the outcomes" (Hodges et al. 2004, p50). This raises the question of how to design assessment so that it reflects the values and purposes of the program or course, and, in particular, what aspects of learning to assess and what kinds of evidence of learning can be used.

Brodie and Irving contend that in work-based learning, "students need to recognise knowledge presented in unfamiliar ways and to develop skills of metacognition in order to recognise and learn from the knowledge and skills presented" (2007 p12). This type of holistic learning is common to all types of LTP. Some observe that "practitioners need to allow room for the wider learning that takes place in the work environment (Hodges et al. 2004, p52); the difficulty, however, is determining what to assess and how to go about it.

Several authors warn of the over-reliance in some forms of LTP (notably WIL, cooperative learning and work-based learning) on assessing technical competencies at the expense of these other, "high order" learning outcomes (e.g. Ram 2008). It has also been suggested that there may be problems if "assessment designers focus on the more tangible and identifiable technical competencies at the expense of the more difficult-to-measure soft/generic competencies", as this might achieve reliability at the expense of validity (Hodges et al. 2004, p53). These so-called "soft skills" are closely allied with many graduate attributes and capabilities now adopted in universities across Australia (Bosanquet et al. 2010) and share the inherent challenges of ensuring valid and reliable assessment practices and approaches. Some of the problem may be due to the difficulty of being able to fully specify the skills themselves (Hughes & Barrie 2010).



Table 2: Primary Purposes of Learning Through Participation.

### Primary Purposes of Learning Through Participation

#### Employability or attaining work skills:

- work readiness and ability to perform in the workplace
- attainment of generic workplace skills
- attainment of particular competences (e.g. classroom management)
- external accreditation and/or certification

#### Integration of theory and practice:

- application of theory to the real world
- praxis

#### Enhancement of student learning:

- development of graduate capabilities or attributes
- identification of a career path or career clarification
- motivation
- providing insight that promotes learning in other situations (such as other courses or units)
- preparation for "life-long learning"

#### Personal development:

- personal transformation
- provision of challenges for moral, ethical and value development

#### Community engagement:

- service to the community
- mutual benefit for student, educational institution and partners

Brodie & Irving (2007); Dressler & Keeling (2004); Groenewald (2004); Kiely (2005); Holland (2001).

Academics report that traditional assessment items do not necessarily align with the broader learning that occurs in LTP (Jorgensen & Senini 2005; Richardson et al. 2009), particularly in service learning. Eyler (2000, p3) discusses the need to "refine our definition of appropriate intellectual outcomes and to design measurements that are convincing". The question of what evidence of learning can be used is discussed extensively in the literature and is addressed in a related paper by Winchester-Seeto et al. (2010).

Forms of LTP that place less emphasis on technical competencies, such as service learning, face tough decisions related to validity. How do you assess learning outcomes related to social justice, for instance? Do you ignore these outcomes and concentrate on more easily measurable outcomes such as report writing?

Service-learning educators also grapple with the bigger problem of demonstrating that this style of education achieves more than just providing opportunities for community service. Eyler (2000) suggests that curriculum design should include more of what is valued in higher-

education institutions, such as intellectual learning related to processes for operating on and using knowledge. Consequently, assessment could test, for example, whether students can generate strategies for tackling a new problem. Similarly, some authors maintain that assessment in this context should concentrate on finding evidence of higher-order and critical thinking, for instance using guided reflection (such as the Articulated Learning strategy) as evidence of the development of this skill (Ash & Clayton 2004). Assessment could also concentrate on verification of linkages between academic, civic and personal learning objectives. Steinke and Fitch (2007) report on a suite of different approaches that include both indirect and direct measures of problem-solving skills, critical thinking and so on, that can be applied in service learning.

One of the issues raised by Steinke and Fitch (2007) is the development of student abilities to transfer and integrate knowledge gained from their experiences, and how to measure this learning. This is no easy task, and cognitive scientists struggle with developing the means to measure deep understanding and the ability to transfer knowledge (Eyler 2000). Similarly, a study by Coll et al. (2009) found that while all parties expected that there would be an integration of on-campus and off-campus learning, there was no evidence of any explicit attempts to promote or measure this.

## **What Evidence Can Be Used**

The range of variables and issues specific to each LTP context influences decisions about whether assessment should be based on the product of learning (e.g. research or project report, an essay or a portfolio that includes samples of work); the actual practice of a skill or competency; or the process of learning.

The advantage of assessing a learning product is that it is tangible and familiar to both academic practitioners and students. The difficulty is that it may only capture some of the skills and dispositions that are deemed important, and may only tell part of the story. Another conundrum occurs where a project has "failed", possibly through no fault of the student. The question then arises of whether this should affect the student's mark, and how assessment design or procedures can take this into account (e.g. Jorgensen & Senini 2005).

The assessment of performance also has inherent problems. Typically this will involve either an external/workplace supervisor and/or a visit from an academic to view students' skills within their placement. Practitioners complain that a single visit or a series of visits will only provide a "brief sample", which might not reflect overall student performance (McNamara 2008; Coll et al. 2002). If the student, however, is called on to provide evidence of learning, their success relies to a large degree on their ability to articulate their achievements. Is this a valid and reliable assessment process?

## **Verification of Learning**

Standards-based assessment, which can be particularly effective in measuring the attainment of many types of technical or "hard" skills, has been used for some time by disciplines such as engineering, accounting, medicine and nursing. It also meets the demands by industry and accreditation bodies for objective verification of learning. However, not all learning outcomes are easily measured this way, and such approaches have not yet "addressed the issue of assessing real world skills" (Steinke & Fitch 2007, p6).

In the LTP context this may prove problematic when addressing the matter of objective verification of learning. Challenges include:

- deciding who determines learning outcomes and assessment criteria (Price 2005; Thomas & Goc 2004);
- developing clear, comprehensive, context-based and relevant assessment criteria, whilst recognising that over-specification may be cumbersome and less accessible to students (O'Donovan et al. 2004; Poikela 2004) and other stakeholders;
- articulating competencies that address implicit knowledge (Coll et al. 2002) to account for tacit, creative, intuitive knowing or learning (O'Donovan et al. 2004);
- ensuring consistent interpretation and application of standards and criteria by all assessors (Price 2005; Poikela 2004);
- finding ways to capture and objectively measure the unintended learning outcomes (Jones et al. 2009; Hodges et al. 2004); and
- determining whose priorities set the standards (Jones et al. 2009): industry, university or community, or a combination.

'Something important can be lost when a complex achievement is reduced to the aggregate of its parts' (Jones et al., 2009, p206) and rich learning opportunities could be significantly devalued for students by applying a strict standards based approach to assessment. One might argue that a standards based approach is at odds with providing a reliable indication of some aspects of what a student has learned in the LTP context.

Many authors contend that it is difficult to find empirical evidence to demonstrate that students have achieved prescribed learning outcomes (Bringle & Hatcher, 2009; Dressler & Keeling, 2004; Eames & Cates, 2004). Often there is a reliance on student self-reporting, focused on descriptions of experiences of the curriculum and the perceived benefits or value of the program (Eyler, 2002). This is quite different to measuring and verifying the achievement of learning outcomes and 'self-reporting of learning is not only a weak measure of the complex cognitive outcomes we expect, it also confuses satisfaction with learning' (Eyler, 2000, p3).

Adding to this complexity are claims of a 'mismatch between what employers value and what institutions are keen to assess' (Zegwaard et al., 2003, p12). Some disciplines cite the increasing influence of industry and external accrediting bodies over learning outcomes and assessment (Palmer, 2004) and a general lack of effective collaboration between stakeholders (McDermott, 2008).

## Role of the Host Supervisor

The very nature of LTP involves multiple stakeholders in the learning and assessment process: faculty, community or industry partners, students and the higher education institution (Richardson et al. 2009; Groenewald 2004; Holland 2001). One of the most vexing questions is the role of the host supervisor – the person within the placement organisation who is responsible for supervising the student – in LTP assessment.

LTP pedagogy often advocates the involvement of host supervisors in developing, supporting and validating student achievement of learning outcomes (Ram 2008; Coll & Eames 2004), and students particularly value the involvement of the host supervisor in their LTP experience (Jones et al. 2009). The host supervisor's involvement in assessment may be not only beneficial, but also unavoidable – for example if the supervising academic does not have adequate specialist knowledge to assess particular projects (or vice versa, as suggested by Fincher et al. 2004) or the supervising academic is unable to visit students on placement (McDermott 2008).

A potential dilemma occurs when the host supervisor is assigned the role of both mentor and assessor. A study by Le Maistre et al. (2006) shows the assignment of dual roles to host supervisors is most problematic when the student is underperforming, as the host supervisor may be reluctant to provide a "bad mark" for a student they have been responsible for mentoring. Another challenge is how to encourage host supervisors who are reluctant to be involved in the verification of student learning (McNamara 2008; Costley & Armsby 2007; Thomas & Goc 2004).

To exclude host supervisors from the assessment process altogether, however, does not deal with pragmatic problems such as student omission of information or work; inaccuracies in their final placement reports (McDermott 2008); or how to verify student claims to learning via self-reflective journals (McNamara 2009).

A synthesis of the literature presents more questions than answers about the role of the host supervisor in assessment. Questions for practitioners to consider include:

- How can the host supervisor, particularly the novice supervisor, be appropriately supported by the university?
- How can academic supervisors draw on a host supervisor's experience of assessing workplace performance?
- How can the host and academic supervisors work collaboratively in and through the assessment process to support and validate learning?
- What steps need to be taken to ensure consistency in assessment practices across workplaces and between host supervisors?
- What models of assessment can account for the needs and challenges of all stakeholders?
- What weighting should be given to host supervisors' assessments?
- (McDermott 2008; McNamara 2008; Zegwaard et al. 2003)

In light of these considerations, one option adopted by many practitioners is to design assessment models where the university maintains overall responsibility for student assessment, while at the same time engaging host supervisors to facilitate and objectively verify the learning.

## **Reliance on Reflection**

Despite little research demonstrating the relationship between reflection and LTP (Moon 2004), the literature shows practitioners making extensive use of reflection to support learning and assessment (e.g. Clarke & Burgess 2009; Stupans & Owen 2009; McNamara 2009; Brodie & Irving 2007; Kiely 2005; Ash & Clayton 2004; Brockbank & McGill 1998). Reflection is commonly used by professional courses where there is a need to connect field and work experience with university learning such as nursing, teaching and psychology (Boud & Walker 1998). It is reported to have a number of applications and benefits to support the range of LTP learning outcomes; however, its use needs to be carefully designed, as discussed by the authors in a recent conference paper (Coulson et al. 2010).

Issues around equity, reliability and validity are all raised by the use of reflection. These include, but are not limited to:

- Not all students are naturally reflective (Larrivee 2008; Mackintosh 1998; Moon 2004) and learning to reflect, particularly at higher levels, takes time and needs to be scaffolded (Moon 2004).

- Reflective activities need to be clearly communicated to students, well designed and clearly structured (McNamara 2009; Stupans & Owens 2009).
- Students find reflection time-consuming (Stupans & Owens 2009; Pierides et al. 2006).
- Some students do not feel comfortable revealing their "private thoughts", and consequently provide more superficial work (Rothwell & Ghelipter 2003) or untruthful reflections (Pierides et al. 2006).
- Reliance on written reflection requires appropriate writing skills (Sumison & Fleet 1996).
- Students from more didactic learning cultures are less predisposed to reflection and may require additional support (Rarieya 2005; Rothwell & Ghelipter 2003).
- Some disciplines have a tradition of reflection and may accommodate this mode more easily than other disciplines (Brodie & Irving 2007; Kolb 1984).

These issues raise contentious questions: for example, should student reflections be assessed? Research points to difficulties in identifying and assessing reflection, reporting that it "raises complex issues of consistency and equity, as well as broader pedagogical and ethical concerns" (Sumison & Fleet 1996, p6). Others argue that the process of reflection is best left unassessed (Stewart & Richardson 2000). Nevertheless, if we understand reflection to be useful for learning, as well as a desired skill, we then need to focus student attention on it, and assessment has the capacity to provide that focus (Brown & Knight 1994).

Assessing reflection in the context of standards-based assessment raises two obvious difficulties for practitioners. The first relates to whether to encourage students to include in their reflections their doubts, concerns, biases or anything that may be considered wrong or a mistake if they are going to be assessed within a framework that "celebrates certainty" (Boud, 1999, p3). The second is the question of how to accommodate reflections that are non-cognitive in nature – those that involve emotions and feelings – within an evidence-based framework? (Boud & Walker 1998).

## LTP Assessment Design Framework

As outlined above, the design of an effective, valid and reliable assessment package is complex and needs to take into account many factors. To assist practitioners, the authors have devised a framework to analyse the practical and pedagogical context of LTP and to guide academics through some of the most important issues. The framework consists of a *Placement Profile*, to better understand the operational conditions for which the assessment package must be designed, and a set of *Guiding Questions* about assessment and feedback.

### Step 1: Developing a Placement Profile

A number of variables emerge from the literature that affect assessment design and implementation, and have implications for the workloads of students, academics and host supervisors. They range from logistical and location factors to complex issues related to ownership and control over learning and assessment, through to expertise and the various stakeholders' levels of involvement and commitment.

The *Placement Profile* (Table 3) presents a summary of the most significant variables that affect all placements to a greater or lesser extent. They are rarely dichotomous, and placement situations and circumstances can occur anywhere on a continuum in between the two extremes. The profile does not necessarily imply that one or other endpoint is "ideal", but

merely acknowledges that each placement or academic program has its own unique set of conditions that will need to be taken into account in designing an assessment package.

The profile is designed to map the conditions that influence placements. Practitioners place a mark on the profile where they estimate their program or placements fit on the continuum between the two extremes for each variable. Where students do very similar placements, one profile for the whole unit or course might be adequate; where placement circumstances are very different, more profiles might be required to get a true picture of what is needed.

One example of operational conditions affecting assessment design is the difference between local placements and those that are distant from the home campus. In the former, practitioners might design ongoing, formative assessments where students physically submit items at intervals and receive feedback quickly. In the latter, for instance in overseas placements, opportunities for getting the items to the academic may be restricted, and other options (such as technological solutions) might be preferable.

## Step 2: Guiding Questions

Once the operational aspects and any limiting conditions are understood, more-specific questions about assessment need to be considered. The literature synthesis presented in this paper points to a number of key questions that underpin assessment design more generally, as well as aspects that are unique to assessment in LTP. The questions are necessarily at a high level and serve to help practitioners work through the issues in a systematic way. Except for the first and last questions, the order in which the questions are tackled does not really matter.

Answers to these questions should be used as a guide to start the process of determining the best assessment approaches and most appropriate tools to meet particular placement or program needs. It is unlikely that one assessment tool will be able to meet all the requirements; a combination of approaches or tools may be needed.

1. What are the desired learning outcomes for the experience/placement and other supporting learning activities?
2. What practical aspects of the placement will affect the design and implementation of assessment? See the *Placement Profile*.
3. How can formative assessment strategies be effectively used to support learning, especially where students are off-campus for extended periods?
4. Is there a place for professional judgement (by the academic or host supervisor) in assessing LTP units, and how can assessment practices account for this?
5. What will be considered to be valid and reliable evidence of learning?
6. How can assessment approaches and tools be designed so that they are flexible enough to account for the many variables present in LTP (see *Placement Profile*), but also ensure fair, reliable and consistent practices?
7. Should reflection be part of the assessment strategy? If so, what aspect should be assessed (raw or distilled reflections), how are the reflections to be captured and how can it be ensured that student reflections – not the students' ability to write about them – are being assessed?
8. What is the best way to evaluate the effectiveness of the assessment design and tools used?

**Placement Profile**

← Place a cross somewhere along each gradient, indicating your specific circumstance →

Short placement (hours or a few days)	Long placement (months to a year)
Interrupted placement (e.g. a day per week)	Block placement
Local placement	Distant placement e.g. student lives away from home
Student and academic able to communicate quickly and regularly	Student and academic able to communicate only sporadically
Comprehensive preparation of student before placement	No preparation of student before placement
Academic able to provide ongoing support and feedback during placement	Academic unable to provide ongoing support and feedback during placement
Large degree of input by student/academic into work/project design and execution	Work/project design and execution determined by others
High degree of control by student in execution of project/work and output	Control of execution of project/work and output held by others
"Host supervisor" is interested, has time for supervision and/or extensive experience	"Host supervisor" has little time, interest and/or experience
Student in later stages of degree/program	Student in early stages of degree/program
Compulsory part of degree program	Elective part of degree program
Only specially selected students undertake placement	Placements must be found for all students who enrol
Academic familiar with educational theory, including assessment	Novice academic less familiar with educational theory, including assessment
High degree of institutional support for program ie, training for academics; administrative support	Program is not well supported by the institution

### Step 3: Determine the Most Appropriate Assessment Package

It is tempting to try to provide the "right" answers to each of the questions posed in Step 2, and advise practitioners to use particular approaches and tools based on their placement profile. The reality is that one size does not fit all and cannot address the myriad

circumstances of placements, nor the different emphases and learning outcomes of each program or placement.

Using the *Placement Profile* and *Guiding Questions* is one way of supporting the decision-making process. It provides a checklist of considerations along with a "map" of the practical limitations and affordances of particular placement logistics. This not only ensures that the matters considered logically and in entirety, but suggests some alternatives that might not have been apparent to the practitioner. Many novice practitioners have limited access to different approaches and often revert to what they themselves have experienced, or how LTP is practiced in their institution. Testing these tools in professional-development workshops has demonstrated that they are useful in broadening the scope of thinking.

Winchester-Seeto et al. (2010) document the strengths and potential problems of commonly used assessment tools. All tools, however, will need to be tailored to suit the unique circumstances of each placement or program and should be reviewed on an ongoing basis to ensure they continue to support and measure student learning.

## Conclusion

Even a cursory glance at the literature about assessment shows that it is a topic that causes angst amongst educators. All stakeholders acknowledge that it has a significant role to play in education at all levels and commonly drives decisions about curriculum design. The difficulties of finding valid and reliable assessment strategies are compounded by the unique nature of LTP, as well as by the logistical difficulties of non-traditional teaching approaches and the off-campus nature of most placements. In designing assessment strategies, the educator needs to consider the primary goal of the LTP experience; the holistic nature of learning that occurs in the placement; the desired learning outcomes; the context; the role of the host organisation and supervisor; expectations of community and industry; and the learning activities themselves, as these all influence and inform assessment.

This paper not only provides a synthesis of the literature concerned with assessment of LTP, highlighting the many issues involved, but also presents a framework to help practitioners recognise and delineate the numerous considerations and circumstances that impinge on effective assessment design. Although it is a difficult task, finding appropriate assessment strategies that satisfy students, the community, industry and academic institutions is a necessary task. It will be a significant factor in determining the success of LTP as a valid and important part of student education, and in playing a legitimate and academically rigorous role in learning and teaching in the higher-education sector.

## References

- Andresen, L, Boud, D & Cohen, R 1999, 'Experienced based learning: contemporary issues', in G Foley (ed.), *Understanding Adult Education and Training*, 2<sup>nd</sup> edn, Allen & Unwin, Sydney, pp225-239.
- Ash, SL & Clayton, PH 2004, 'The Articulated Learning: an approach to guided reflection and assessment', *Innovative Higher Education*, vol.29, no.2, pp137-154.
- Astin, AA, Vogelgesang, LJ, Ikeda, EK & Yee, JA 2000, *How service learning affects students*, University of California, Higher Education Research Institute, Los Angeles.
- Bartkus, KR & Stull, WA 2004, 'Research in cooperative education', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the*



*Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp67-78.

Bosanquet, A, Winchester-Seeto, T & Rowe, A 2010, 'Changing perceptions underpinning graduate attributes: a pilot study', in *Proceedings of the 33rd HERDSA Annual International Conference, Research and Development in Higher Education: Reshaping Higher Education*, vol. 33, Melbourne, 6-9 July, 2010, accessed 01/03/2011, [http://www.herdsa.org.au/wp-content/uploads/conference/2010/papers/HERDSA2010\\_Bosanquet\\_A.pdf](http://www.herdsa.org.au/wp-content/uploads/conference/2010/papers/HERDSA2010_Bosanquet_A.pdf).

Boud, D 1999, 'Avoiding the traps: seeking good practice in the use of self assessment and reflection in professional courses', *Social Work Education*, vol.18, no.2, pp121-132.

Boud, D & Walker, D 1998, 'Promoting reflection in professional courses: the challenge of context', *Studies in Higher Education*, vol.23, no.2, pp191-206.

Bringle, RG & Hatcher, JA 2009, 'Innovative practices in service – learning and curricular engagement', *New Direction for Higher Education*, no.147, pp37-46.

Brockbank, A & McGill, I 1998, *Facilitating reflective learning in higher education*, Open University Press 88, Buckingham.

Brodie, P & Irving, K 2007, 'Assessment in work-based learning: investigating a pedagogical approach to enhance student learning', *Assessment and Evaluation in Higher Education*, vol.32, no.1, pp11-19.

Brown, S & Knight, P 1994, *Assessing Learners in Higher Education*, Kogan Page, London.  
Clarke, D & Burgess, C 2009, 'Using practice based education to improve the student experience', in *Proceedings of the 32<sup>nd</sup> HERDSA Annual Conference*, Darwin, 6-9 July 2009, accessed 30/08/2010, [http://www.herdsa.org.au/wp-content/uploads/conference/2009/papers/HERDSA2009\\_Clarke\\_D.pdf](http://www.herdsa.org.au/wp-content/uploads/conference/2009/papers/HERDSA2009_Clarke_D.pdf).

Coll, RK & Eames, C 2004, 'Current Issues in Cooperative Education', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp271 -282.

Coll, RK, Eames, C, Parku, L, Lay, M, Ayling, D, Hodges, D, Ram, S, Bhat, R, Fleming, Ferkins, L, Wiersman, C & Martin, A 2009, *An exploration of the pedagogies employed to integrate knowledge in work-integrated learning in New Zealand higher education institutions*, report, sponsored by Teaching and Learning Research Initiative, accessed 31/08/2010, [http://www.tlri.org.nz/assets/A\\_Project-PDFs/9263-Finalreport.pdf](http://www.tlri.org.nz/assets/A_Project-PDFs/9263-Finalreport.pdf).

Coll, R, Taylor, N & Grainger, S 2002, 'Assessment of work based learning: some lessons from the teaching profession', *Asia-Pacific Journal of Cooperative Education*, vol.3, no.2, pp5-12.

Costley, C & Armsby, P 2007, 'Work-based learning assessed as a field or a mode of study', *Assessment & Evaluation in Higher Education*, vol.32, no.1, pp21-33.

Coulson, D, Harvey, M, Winchester-Seeto, T & Mackaway, J 2010, 'Exploring evidence for the role of reflection for learning through participation', in M Campbell (ed.), *Work Integrated Learning – Responding to Challenges: Proceedings of the 2010 ACEN National Conference*, Curtin University, Perth, September 29-October 1, accessed 01/02/2011, <http://www.acen.edu.au/conferences/ACEN-2010-Proceedings.pdf>.

Dewey, J 1938, *Experience and Education*, Collier Books, New York.

Dressler, S & Keeling, AE 2004, 'Student benefits of cooperative education', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp217-236.

Eames, C & Cates, C 2004, 'Theories of learning in cooperative education', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp37-47.

Eyler, JS 2002, 'Reflection: linking service and learning – linking students and communities', *Journal of Social Issues*, vol.58, no.3, pp517-534.

Eyler, JS 2000, 'What do we most need to know about the impact of service-learning on student learning?' *Michigan Journal of Community Service Learning [Special Issue – Directions, 2000]*, accessed 25/01/ 2010, <http://www.umich.edu/~mjcs/volumes/2000sample.html>.

Fincher, S, Clear, T, Petrova, K, Hoskyn, K, Birch, R, Claxton, G & Wieck, M 2004, 'Cooperative Education in Information Technology', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp111-121.

Flick, U 2006, *An Introduction to Qualitative Research*, 3rd ed, Sage Publications, London.

Furco, A 2001, 'Advancing service learning at research universities', in S Canada & BW Speck (eds), *Developing and implementing service learning programs*, Jossey-Bass Publishers, San Francisco, pp67-78.

Groenewald, T 2004, 'Towards a definition for cooperative education'. in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp17-25.

Hodges, D, Smith, BW & Jones, PD 2004, 'The Assessment of Cooperative Education', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp49-66.

Holland, B 2001, 'A comprehensive assessment model can measure the effects of service-learning on everyone involved', *New Directions for Higher Education*, vol.114, pp51-60.

Hughes, C & Barrie, S 2010. 'Influences on the assessment of graduate attributes in higher education', *Assessment & Evaluation in Higher Education*, vol.35, no.3, pp325-334.

Jones, M, Coiacetto, E, Jackson, J, Coote, M, Steele, W, Budge, T & Gall S 2009, 'Generating academic standards and assessment practices in work integrated learning: a case study from urban and regional planning', *Asia-Pacific Journal of Cooperative Education*, vol.10, no.3, pp203-215.

- Jorgensen, D & Senini, S 2005, 'Confronting the Assessment Demon - Engineering Portfolio Assessment', paper presented to the 2005 ASEE/AaeD 4<sup>th</sup> Global Colloquium on Engineering Education, Australian Association for Engineering Education, 26-29 September, 2005, Sydney, Australia.
- Kiely, R 2005, 'A transformative learning model for service-learning: a longitudinal case study', *Michigan Journal of Community Service Learning*, vol.12, no.1, pp5-22.
- Kolb, DA 1984, *Experiential Learning*, Prentice Hall, Englewood Cliffs, NJ.
- Larrivee, B 2008, 'Development of a tool to assess teachers' level of reflective practice', *Reflective Practice Journal*, vol.9, no.3, pp341-360.
- Le Maistre, C, Boudreau, S & Pare, A 2006, 'Mentor or evaluator? Assisting and assessing newcomers to the professions', *Journal of Workplace Learning*, vol.18, no.6, pp344-354.
- McDermott, K 2008, 'Addressing the weak link: enhancing support for the sponsors of student placements in cooperative education', *Asia-Pacific Journal of Cooperative Education*, vol.9, no.1, pp91-111.
- Mackintosh, C 1998, 'Reflection: a flawed strategy for the nursing profession', *Nurse Education Today*, vol.18, no.7, pp553-557.
- McNamara, J 2009, 'A collaborative model for learning and assessment of legal placements', referred paper presented at the World Conference on Collaborative Education and Work Integrated Learning, 23-26 June 2009, Vancouver, Canada, accessed 20/01/2010, <http://www.waceinc.org/papers/vancouver/Australia/McNamara.pdf>.
- McNamara, J 2008, 'The challenge of assessing student capabilities in legal internships', in *Proceedings WACE Asia Pacific Conference*, 30 September-3 October, 2008, Sydney, Australia, accessed 30/06/2009, [http://www.acen.edu.au/resources/docs/WACE\\_ACEN\\_Asia\\_Pacific\\_Conference\\_2008\\_E-Proceedings-1.pdf](http://www.acen.edu.au/resources/docs/WACE_ACEN_Asia_Pacific_Conference_2008_E-Proceedings-1.pdf).
- Moon, JA 2004, *A handbook of reflective and experiential learning: theory and practice*. Routledge Falmer, London.
- O'Donovan, B, Price, M & Rust, C 2004, 'Know what I mean? Enhancing student understanding of assessment standards and criteria', *Teaching in Higher Education*, vol.9, no.3, pp325-335.
- Palmer, S 2004, 'Authenticity in assessment: reflecting undergraduate study and professional practice', *European Journal of Engineering Education*, vol.29, no.2, pp193-202.
- Patrick, C-J, Peach, D, Pocknee, C, Webb, F, Fletcher, M & Pretto, G 2008, 'The WIL [Work Integrated Learning] report: A national scoping study, report sponsored by the Australian Learning and Teaching Council (ALTC), Queensland University of Technology, Brisbane, accessed 27/10/2010, [www.acen.edu.au](http://www.acen.edu.au).
- Pierides, D, Lemon, N, Wear, A, Knowles, S & Fiford, J 2006, 'Narratives that nudge: raising theoretical questions about reflective practice', paper presented at Annual Conference for the Australian Association for Research in Education Conference, 26-30 November 2006, Adelaide, Australia.

- Poikela, E 2004, 'Developing criteria for knowing and learning at work: towards context-based assessment', *The Journal of Workplace Learning*, vol.16, no.5, pp267-274.
- Price, M 2005, 'Assessment standards: the role of communities of practice and the scholarship of assessment', *Assessment and Evaluation in Higher Education*, vol.30, no.3, pp215-230.
- Ram, S 2008, 'Industry-based learning and variable standards in workplace assessments', *Asia-Pacific Journal of Cooperative Education*, vol. 9, no.2, pp129-139.
- Rarieya, J 2005, 'Promoting and investigating students' uptake of reflective practice: a Pakistan case', *Reflective Practice Journal*, vol.6, no.2, pp285-294.
- Richardson, J, Kaider, F, Henschke, K & Jackling, B 2009, 'A framework for assessing work integrated learning' in *Proceedings of the 32nd HERDSA Annual Conference: the Student Experience*, Darwin, 6-9 July 2009, pp336-345.
- Rothwell, A & Ghelipther, S 2003, 'The developing manager: reflective learning in undergraduate management education', *Reflective Practice*, vol.4, no.2, pp241-254.
- Steinke, P & Fitch, P 2007, 'Assessing Service-Learning', *Research & Practice in Assessment*, vol.1, no.2, pp1-8.
- Stewart, S & Richardson, B 2000, 'Reflection and its place in the curriculum on an undergraduate course: should it be assessed?', *Assessment & Evaluation in Higher Education*, vol.25, no.4, pp369-380.
- Stupans, I & Owen, S 2009, 'Planning and scaffolding for learning in experiential placements in Australian pharmacy schools', *Asia-Pacific Journal of Cooperative Education*, 10:1, pp29-39.
- Sumison, J & Fleet, A 1996, 'Reflection: can we assess it? should we assess it?', *Assessment and Evaluation in Higher Education*, vol.21, no.2, pp121-131.
- Thomas, R & Goa, G 2004, 'Cooperative Education in Journalism Studies', in RK Coll & C Eames (eds), *International Handbook for Cooperative Education: an International Perspective of the Theory, Research and Practice of Work-Integrated Learning*, World Association for Cooperative Education, Boston, pp151-158.
- Thorn, S 2000, 'Data Analysis in Qualitative Research', *Evidence Based Nursing*, 3, pp68-70.
- Van Gyn, GH, Cutt, J, Loken, M & Ricks, F 1997, 'Investigating the educational benefits of cooperative education: a longitudinal study', *Journal of Cooperative Education*, vol.32, no.2, pp70-85.
- Winchester-Seeto, T, Mackaway, J, Coulson, D & Harvey, M 2010, 'But how do we assess it? an analysis of assessment strategies for learning through participation (LTP)', *Asia Pacific Journal of Cooperative Education*, vol.11, no.3, pp67-91, accessed 31/03/2011, [www.apjce.org/home](http://www.apjce.org/home).
- Zegwaard, K, Coll, RK & Hodges, D 2003, 'Assessment of workplace learning: a framework', *Asia-Pacific Journal of Cooperative Education*, vol.1, pp9-18.
- Ziegert, AL & McGoldrick, K 2004, 'Adding rigor to service-learning research: an armchair economists' approach', in M Welch & SH Billig (eds), *New perspectives in service-learning: Research to advance the field*, pp23-36, Information Age, Greenwich, CT.