

# The Bachelor of Learning Management (BLM) and Education Capability:

## Why we do not Prepare 'Teachers' Anymore

**RICHARD SMITH, CENTRAL QUEENSLAND UNIVERSITY**

**DAVID LYNCH, CENTRAL QUEENSLAND UNIVERSITY**

**JIM MIENCZAKOWSKI, CENTRAL QUEENSLAND UNIVERSITY**

*This paper explains the underlying logic of a four-year pre-service preparation program, the Bachelor of Learning Management (BLM). The program was designed for post-New Economy knowledge workers in education and training. Its intent is to graduate workplace ready and futures-oriented 'learning managers' who have particular skill in achieving student learning outcomes, rather than 'teachers'. A professional 'business-to-business' arrangement between the teaching profession and Central Queensland University's Faculty of Education and Creative Arts developed the BLM collaboratively in October 2000 and the program enrolled its first students in 2001. The BLM signals a definite shift of emphasis to that of the conventional B.Ed model of teacher education by its four knowledge domains: pedagogy, essential professional knowledge, futures and networks and partnerships. The paper describes how the BLM was developed, some of the major challenges to such an innovation and reviews the core concepts of 'learning management' and 'portal task'.*

### **INTRODUCTION**

This paper is about the development of a new teacher education program, the Bachelor of Learning Management (BLM). The BLM was developed in late 2000 by a Working Party comprised of the teaching profession and Central Queensland University. In Part I of the paper, we outline the background to the BLM to provide reference points for the

degree program. Part II contains a description of 'learning management' and the degree structure. Part III deals with two of the core concepts, the '8 Learning Management Questions' and the 'Portal Task'.

### **PART I: BACKGROUND TO THE BLM**

The teacher education field, in Australia and internationally, has been marked by constant debate about the philosophies and practices that should regulate the pre-service preparation of teachers. Recently, thoughts have turned to the new demands placed on teachers and schools. Simultaneously, there has been pressure to develop and implement strategies to meet the new pedagogical and social justice demands which have evolved from reconstructed community perceptions and expectations of the role played by teachers and schools (OECD 1999). Report after report (Woodlands 2002; Ramsey 2000; Darling-Hammond 2000; Kirby 2000; Education Queensland 2000; Gardner 1999; Foley 1998) chronicles the need for a substantial overhaul of schooling and teacher education to keep pace with the new interplay between social cohesion, individual identities, citizenship, work and training. In the long-term, the underlying need is to develop a new architecture for life-long education and training, one that involves all parts of education and training systems, including the community and the schools.

The task is complex. There are fruitless debates about whether or not social change is 'technology-driven' (e.g. Kelly 1998; Putnam 2000). Some 'knowledge-based economy' formulations of social change depict the learning economy as necessarily 'high-tech' because of its intimate connection with science and technology. This is misleading because there are other incremental shifts in human behaviour and social organization that create social change (Florida 2002). A core understanding of the learning economy then is that school systems have to deliver new competences, capabilities and new skills as well as access to information such as science, mathematics and technology. Exposure to the 'content' of these or any other areas of knowledge per se will not fit people for the historical changes underway.

When we began in 2000, the dominant teacher education paradigm in CQU's footprint focused on '*what* students know, rather than *how* they use that knowledge' (Seltzer & Bentley 1999, p. 9). Like OECD (2002, p. 10), we held the view that it was doubtful if the existing BEd program could maximise efficacy and effectiveness of learning and knowledge production in a time of speedy social change and a knowledge society context. We decided that it was time for new solutions rather than re-runs of tried remedies. We set out to decrease the through-put of 'teachers' in the existing system of producing teachers as part of our new solution strategy.

An important component of the re-think was the need to accommodate individualized learning programs into institutional structures. Numerous educational researchers (for example, OECD 2002; Dembo & Eaton 2000; Gardner 1985; Scherer 1999) have argued for more innovative and student-inclusive learning models to break the hegemony of the 'one-size-fits-all' syndrome of public school education, training and university education systems. There are two elements in this trend.

The first element is the movement from disciplinarity to a more heterogeneous knowledge production identified by Gibbons et al. (1994); and Nowotny et al. (2000). In its simplest form, the relevant contrast is between problem-solving based on the cognitive and social norms and practices of a particular discipline and that organized around a particular 'application'. In the former, the discipline tends to determine the context and outcomes, whereas in the latter, knowledge is intended to be useful to someone whether in classrooms, the community, industry, government, or society more generally. Such knowledge is always produced in a process of continuous negotiation so that the interests of the various parties are included (Gibbons et al. 1994).

We found these insights helpful in constructing a teacher education program. They shake the belief in 'planning' based on the past and a frustrating predictability, even in 'evidence-based' research, about how the various elements of schools, teachers, students and universities lock together. We were intent on transcending those cause-effect relationships and implicit assumptions about underlying linearity that abound in professional preparation programs such as teacher education. We learned to live with the non-linear implications and patterns of unpredictability in rejecting that education is a 'mere bundle or a simple combination of many related disciplines' (OECD 2002, p. 84). Instead, we opted for a 'transdisciplinary model that works across, between and beyond the disciplines (Klein 2001; Nicolescu 2002; Nowotny et al. 2001, p. 5) as a means for transgressing the conventional teacher education disciplinary and thinking boundaries.

The second element is a distinct movement towards self-managed learning experiences and student autonomy over what, how and why learning takes place (Foley 1998). The trend is towards:

...an all round human quality, an *integration* of knowledge, skills, personal qualities and understanding *used appropriately and effectively* - not just in familiar and highly focused specialist contexts but in response to *new and changing* circumstances (Stephenson 1999, emphasis in the original).

Stephenson argues that the trend is towards creating 'capability' rather than competence, about 'imagining the future' and bringing it about, and qualities such as courage, risk-taking, intuition, sharing, acceptance of personal responsibility, flexibility, initiative, self-confidence and values. The capability concept also applies to an organization if it embraces the intrinsic, conscious and continuing capacity to survive, grow, improve and transform (Stephenson, 1999).

The capacity to generate and use knowledge to make an impact and to accomplish performances has a new-found importance in the professions and in management theory. We elected to shift our teacher education interest from describing or 'illuminating' the world as the main goal of theorizing to the use-value of knowledge: adopting a constant back and forth flow between theoretical principles and practical applications and concerns. This preferred direction leads irrevocably towards displacement of the institutional patterns of the past in which universities provided hegemonic leadership for school governance, curriculum and learning matters and teacher education, in favour of more strategic ends (Bauman 1997).

In addition, and in response to social change, governments and the institutionalized education policy-makers increasingly view education as an infra-structural contribution to social and economic planning. Education and training are recognized as main drivers of individual and the national social capital and other international comparative system indicators. While some see this as the encroachment by the state, there is fundamental issue of equity embedded in it. 'The purpose of education systems is to prepare young people in appropriate ways for the challenges and responsibilities they will face throughout their lives,' Bentley (1998) says, 'and if society is changing, so should the way in which we introduce young people to it.'

There is a strong case then for adopting a fresh approach to the preparation of the people who will participate in the renewal of education and training systems and society. Recent reviews of Australian teacher education reinforce this position. Ramsey (2000) argues that teacher education should be 'illuminated' by university-school partnerships and more reflective graduates. He advocates flexible, contemporary, IT skills-grounded teacher training programs relevant to a variety of workplaces including schools (Ramsay 2000, p. 58). He further proposes that employers take a greater role in and responsibility for the outcomes of teacher education (Ramsay 2000, pp. 58-59).

There is a more overt accountability for education systems in these new outcomes. Kirby (2000, pp. 5-6) for example is resolute about better accountability for the 'education and destinations outcomes of every young person, and for overall outcomes' in conjunction with 'stronger linkages between post compulsory education and training and industry'. More particularly, Kirby is concerned to see 'an education and training system that is forward looking, and responsive to change and the needs of young people' (Kirby 2000, p. 6).

Similarly, and acknowledging that accountability for outcomes must be negotiated with and in the community, Education Queensland requires that students become competent members of a learning society; that pre-school-to-adulthood education and training pathways are available to all students (2000, p. 11). Consequently, Education Queensland's vision is that teachers are no longer gatekeepers of knowledge but 'managers of the learning experiences of children' (2000, p. 8) and this entails teachers continually renewing their pedagogy and skills (2000, p. 9). The futures-oriented 2010 supports 'innovative pre-service training that prepares teachers to teach in the new economic, social and cultural conditions' (2000, p. 10). Governments internationally are making similar moves (see for example, Graham 1999).

The BLM developers recognised the novelty of the circumstances that face education in the 2000s and saw the plurality of present-day life as an opportunity to engage with the image of the teaching profession. They identified that there is a 'brand' and image of the teaching profession that translates into pre-socialisation about 'teachers' and 'teaching'. Such images attract and repel potential recruits and therefore help to shape up future possibilities. For some, it is the heroic and noble visions of teachers who have changed the life chances of generations of individuals, the 'teacher who can win through

no matter what', the stuff of stirring movies such as 'To Sir With Love'. For others, it is less starry-eyed.

Significantly, in a period when the old cultural order is in flux and the labour market has restructured around knowledge industries (Carnevale & Rose 1998; ANTA 1999), there is a contrast between the vision of teaching and teachers and competing opportunities that widens as education systems remain locked into industrial-age bureaucracies and schooling concepts.

For example, compare the term 'teacher' in a list of contemporary job names available on the internet: 'teacher': Internet Strategist, Information Coordinator, Fitness Manager...The term 'teaching' carries a mixed cultural baggage that is, on balance, backward-looking rather than futures-oriented and conserving rather than creating. The buildings, the syllabuses, the administrative and people management systems, the virtual absence of inventive ICT use, frequent changes of direction, chronic management turnover, the professional cultures of teachers and community attitudes reinforce a vision of the past and seemingly timeless practice. In addition, teachers suffer ordinary remuneration compared to the years of training and preparation that conscientious teachers undergo and the responsible and important work that they do. These are signs of a 'toxic workplace' (Pfeffer 1998).

Compared to the ethos of the day, there are few readily apparent generic attractions in career 'teaching' for bright and energetic younger generations, either school leavers or middle career entrants. Such people seek autonomy and flexibility to earn a living by doing something meaningful, while expressing their individuality and creativity. In today's world, 'employers live or die on talent, and talented people increasingly crave jobs that allow them their lives' suggests Hammonds (2002). The BLM developers thought it not too fanciful that the teaching profession does not explicitly offer these opportunities and in all but exceptional circumstances, would find it difficult to deliver even if it did.

These dilemmas will remain until teachers' work has substantive and shared 'futures' orientated purposes and the teaching workplace is made more innovative, creative and appealing by better reflecting the work and organization mores of the 2000s. Accordingly, the BLM was created against such propositions in the search for a new kind of identity for the creative professionals who we believe will dominate the education and training industry in the learning society in 5-10 years time. Minimally the learning workplace needs liberal doses of creative problem finding and solving, a requirement to think on one's own, the capacity to work flexible hours, the valuing of individuality over conformity, and engagement in the design of readily transferable learning programs that achieve outcomes (Florida 2002, pp. 69-72). People who do such work have high levels of formal education and regularly upgrade their stock of complex knowledge on a voluntary basis and are paid well.

Despite, institutionalised reluctance, the BLM developers resolved that the new program ought to be undertaken in partnership with schools and the teaching profession

so that beginning teachers would have access to the conditions of their employment and vocation. This is the professional partnership imperative that marks the BLM. Moreover, preparing the next generation of teachers for rapid and irreversible social changes that affect student behaviours, work place conditions and the knowledge and skill base of education and training, requires a different kind of underpinning knowledge and in-school experience if the past is not to be reproduced. This is the futures imperative. It follows that preparing teachers for these conditions that already affect school systems, entails a different kind of curriculum and a decidedly different set of work experiences through which prospective teachers can develop a futures-oriented teaching capability. This is the professional learning imperative. All three imperatives we argue are important elements of the fourth imperative, that preparing the next generation of teachers is an *industry responsibility* rather than a university problem (Smith 2000).

The public face of Central Queensland's teacher education program is that it is about 'workplace capability' and 'employability'. In this sense, it is no longer about the preparation of 'teachers' for 'teaching' but it is about the development of 'learning managers' who are able to generate a generic management of learning in education and training sites.

## **PART II: THE BACHELOR OF LEARNING MANAGEMENT (BLM) PROGRAM**

The Bachelor of Learning Management (BLM) is a pre-service professional learning degree, anchored in the four imperatives set out earlier, concepts drawn from the 'New Economy' and its successors and educational writing that focuses on pedagogy rather than 'learning theory' (for example, Reigeluth 1999; Marzano 1992). At the time of writing, there are 1400 students enrolled in the degree at sites in Mackay, Rockhampton, Gladstone, Bundaberg and Noosa.

The degree is a four-year program accredited by the Queensland Board of Teacher Registration, but can be completed in three years within the term structure employed by Central Queensland University. The curriculum, consists of four content elements: Futures; Networks and Partnerships; Pedagogy; and Essential Professional Knowledge, contributing 32 courses necessary for completing the degree. Course titles signal the purposes of the degree and include Learning Management, Networks and Partnerships, e-Learning Manager, Entrepreneurial Professional and Portal Task, amongst others.

The BLM contains a compulsory 'internship,' which commences for final year students on 'day one' of the school year (pre-internship), culminating in a continuous work experience (internship). The internship is authorised by the Queensland Board of Teacher Registration so that the student can undertake the full round of professional activities in the workplace. The internship enables the student learning manager to demonstrate the identity and workplace transition from 'student' to 'Learning Manager', that guarantees capability to employers, parents and children. Figure 1 contains the generic program structure.

The program depends entirely on collaboration between professional partners with different but equal expertise, a 'business-to-business' ('B-2-B') model. The agreed goal is to graduate 'industry-ready' 'learning managers' (teachers) who have a futures-disposition and a demonstrated capability to achieve learning outcomes in students and who are equipped to play a leadership role in taking the education sector 5-10 years into the future.

The collaborative model is a fundamental issue. Apart from the warm feeling invoked by terms such as 'partnership', the futures-orientation and disposition that the BLM seeks to produce in its graduates, is also aimed at increasing the capability of the education system to deliver the goals set out in policies such as 2010, ETRF and The Queensland Bishops' Project (2001). A major requirement of the partnership arrangement then is not only collaboration and joint decision-making, but a commitment to the vision and outcomes of the BLM on the part of lecturers, teachers, casual lecturing staff, schools and systems. As part of this arrangement, what used to be called 'fieldwork supervision' is undertaken by school-based 'learning managers' who are bound to complete an induction program about 'learning management' before taking up the mentoring and 'expert' role. In keeping with the B-2-B model, the induction sessions are organised and presented by collaborative teams drawn from the different interests in the BLM.

The 'Learning Manager' provides a range of services to students while in schools, such as 'just-in-time' learning to contextualize and strengthen 'on-campus work' and individualised attention through coaching and mentoring. In one variation of the model, the Learning Manager is assisted by a team of classroom practitioners for specific skills development. The Learning Manager and assistants are 'tapped on the shoulder' because they have visions of education and training beyond that which exists today.

There is of course a major difficulty with this and indeed with all teacher education (nursing, social work etc) models that rely on fieldwork. and existing practitioners. Rather than merely imitating what schools and teachers do, teacher education, like art, depends on the world it mocks for its performances, resources and its performance sites. If the BLM is to be a driving force for educational and social change, it must be transgressive in principle: affected by 'real-life' practice and performance, but affecting the education and training markets, social trends in education and training and the individual performances of teachers and students. In short, there must be a 'process', *sui generis*, to reach preferred states such as 'the future' while using the past. For the BLM partners, the mechanism for change is that the work force involved with the BLM, and new graduates, will transform practices more widely in places like schools that are themselves evolving.

In brief, the 'process' in the BLM takes three forms. In the Pomona model, the traditional university lecture/workshop regime has become a set of facilitated colloquiums, virtual conferences, on-line learning segments, e-resource banks, and various multi-media presentations accessed by students in real-time. The content, or

'underpinnings', are arranged by managers of BLM student learning, modelling the paradigm that underpins the philosophy of learning management.

Second, students are appointed to an accredited 'teaching school', a parallel to the 'teaching hospital' used by medical schools, from week 1 of their BLM program. Here they complete a series of embedded learning tasks known as Portal Tasks and associated 'just-in-time' learning sessions. This 'appointment' embeds the student in the work of a learning manager where accomplishing learning outcomes in performance is the main goal.

Third, a pedagogic framework, known as the 8 Learning Management Questions, scaffolds student learning. These questions provide a design sequence that compels the student and 'learning managers' or mentor teachers to focus on learning outcomes and to establish a framework through which to do it.

To paraphrase Stephenson (1999, p. 10), these BLM processes are aimed at the autonomous development of the neophyte learning manager, with the university supporting the student's development in the context of the employer's business, whether it is the government, catholic, independent or VET sectors and irrespective of the location. The employers' benefits are both immediate through the availability of 'another set of hands' with a transgressive outlook; and long-term through the creation of a collective capacity to manage change within a uncertain environment.

The respective interests of the three parties in this partnership are protected by the student learner's commitment to the purposes, directions and content of the learning; by the university's specialist facilities and access to accreditation; and by the employer providing opportunities to learn through work with access to resources and help. Indeed, at all of the 5 BLM sites, the major employers provide significant resources as part of the BLM partnership. This is not 'teacher education' but an intervention in the present and future capability of the education and training workforce.

To these ends, we are especially vigilant about student learning managers overly relying on their own experiences at school to 'fill in the gaps' rather than having a learning management agenda to follow (Smith 2000; Tom 1997). In practice, the school-based learning managers have a particular mission to fulfil, namely the inculcation of a pedagogic scaffold that bridges the 'theory- practice' divide and that articulates remarkable pedagogic activity for the learning manager novice. This pedagogic scaffold is known as 'learning management' and consists of a design process known as the 8 Learning Management Questions and a developmental exercise known as the Portal Task. These concepts are now explained.

### **PART III: THE LEARNING MANAGEMENT FOCUS**

The 'learning management' concept drives every element of the BLM (and the subsequent MLM) and makes the degree distinctive. Learning management of course has little to do with 'management' as it is used in 'managerial' or 'control' or even 'bureaucratic' contexts. Instead, it is a phrase about a determination to achieve 'learning' outcomes.

According to Bruce Archer (cited in Fletcher 2001, p. 413), the phrase 'reading, writing, rithmetic' is a misquotation of an earlier aphorism: 'reading and writing, reckoning and figuring, wroughting and wrighting'. While the derivation of 'literacy' and 'numeracy' is straight forward, the terms 'wroughting and wrighting' mean the 'creation' and 'the making of things' respectively. Fletcher suggests that the most appropriate word to capture 'wroughting and wrighting' is 'design'. Design is an artful arrangement of materials and circumstances into a planned form, a goal-directed problem-solving activity. Thus, a 'learning manager' *designs* the pedagogical strategies that they advertise themselves as being able to perform, judged by the criteria of learner outcomes.

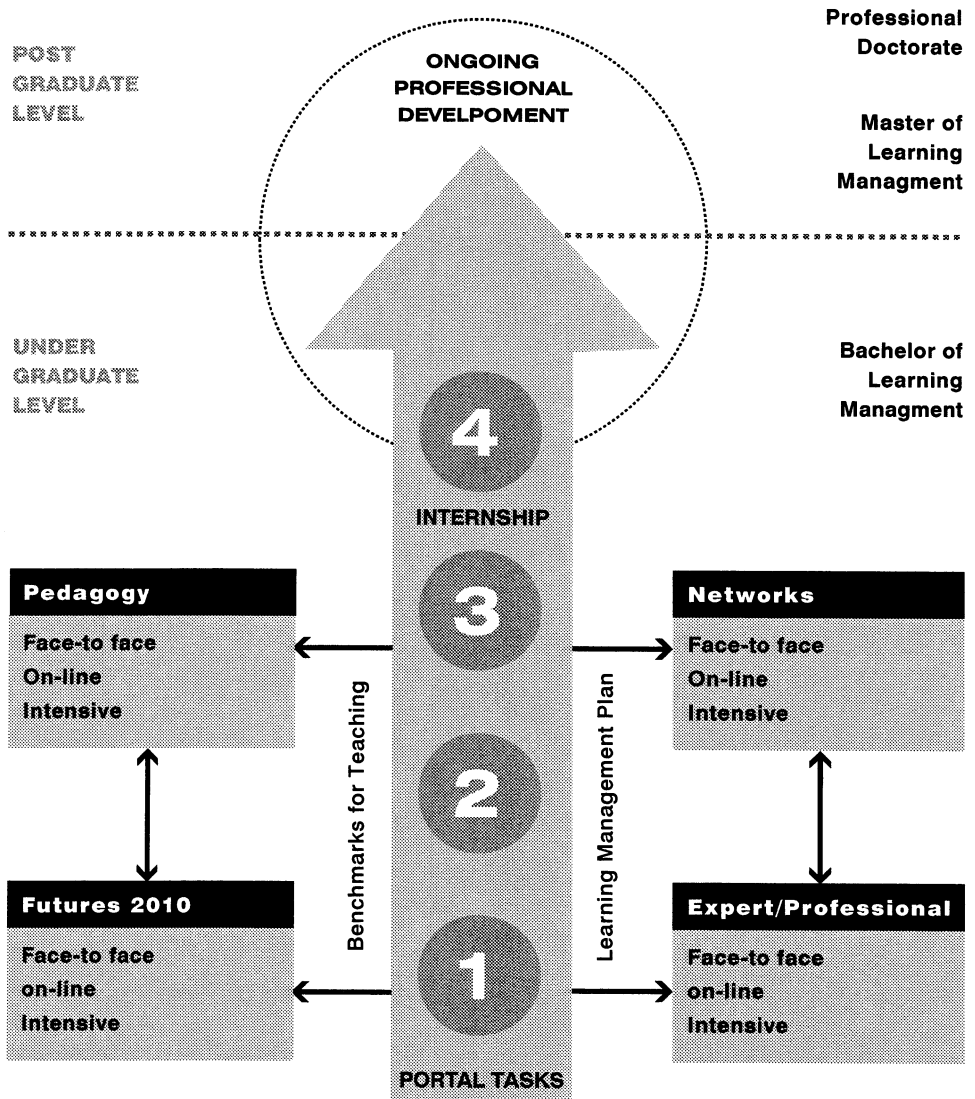
In short, learning management is the capacity to design pedagogic strategies that ensure learning outcomes in students or other kinds of clients. By extension, learning managers are found in most professional fields in what Lundvall and Borrás (1999) call the 'learning society' because the capacity to learn is a generic skill for knowledge workers in knowledge industries.

For the preparation of outcomes-directed 'learning managers', the emphasis on learning reflects a shift in the CQU teacher education programs that preceded the BLM. The BEd to BLM changeover is a definite change in emphasis to the tools and performances needed to achieve 'student learning' rather than on 'teacher preparation' or what teachers *intend* to do. This means that curriculum 'planning' and 'lesson preparation' for example, while they have a place, are rather less emphasized than the achievement of demonstrated student outcomes. The 8 questions and the portal tasks relentlessly draw the student learning manager's attention to this goal. This emphasis is a strong acknowledgement that success at school, the accomplishment of worthwhile pathways, is a significant social justice question in the 2000s (e.g. Lamb & Ball 1999).

### THE 8 LEARNING MANAGEMENT QUESTIONS

For students in the BLM program, the capacity to design pedagogic strategies that achieve learning outcomes in students or other clients is the primary aim. While on-campus BEd work has traditionally articulated many theories and strategies that are associated with effective pedagogy, each has rested on the false assumption that coursework is automatically translated by student teachers into actionable sequences during fieldwork. David Lynch's 8 Learning Management Questions (8LMQs) provide a design sequence that compels the student and 'learning managers' to focus on learning outcomes, establishing a framework through which to do it. That is, the 8LMQs direct students and their mentors to diagnose the learner(s); analyse the situation; judge the availability of resources and plan accordingly; design strategies to achieve learner outcomes; implement strategies; evaluate their effectiveness; and use feedback to re-design another cycle. This process is analogous to scientific methods that use continuous experimentation to reach desired outcomes. The product of answering the 8LMQs is termed a Learning Management Plan.

The 8LMQs are grouped into two strategies. Questions 1-3 orientate the student to their learners in a process broadly referred to as 'profiling'. LMQs 4-8 are about 'designing learning experiences'. The student begins to develop a series of learning experiences, known as a 'Learning Journey' (sometimes called a 'Unit of Work'), using the 'answers' to LMQs 1-3 as the contextual profile.



**BLM Structure**

**Question 1 (What does my learner already know?)** draws the student's attention to the learner. We do this to overcome a tendency in teaching to begin with a 'grade-level' syllabus or curriculum guide. The student is engaged in a variety of tasks including gathering information about the learner from colleagues, conducting pre-tests, reviewing work samples and other documentation maintained as part of the teaching/ learning process.

**Question 2 (Where does my learner need/want to be?)** sets the learning outcomes to be achieved. At this point syllabus and curriculum documents are used as a resource base. Learning outcomes are also derived from personal negotiations with the learner. Accounting for Question 2 is important because it ensures that the learner is a partner in the learning plan.

**Question 3 (How does my learner best learn?)** compels the student to engage in the best practices and professional reflection available in the search for learning plans that are of the highest quality; yet aligned to the specific profile established earlier.

**Question 4 (What resources do I have at my disposal?)** sets the parameters for programing, given that resources are always limited.

**Question 5 (What will constitute the learning journey and what therefore is the best context for learning?)** is the design phase where learning experiences are developed. The 'Learning Journey', contains; an overview summary that organises a series of learning experience plans, so that teaching / learning elements are available for specific lesson preparation.

**Question 6 (Who will do what?)** is a realisation that 'teachers' are not the only 'teacher' in a modern learner's life and that teacher aides, sporting coaches, grandparents, parents, technology-based learning programs, internet, social organizations, can be enlisted as part of the learning journey.

**Question 7 (How will I check to see that the learner has arrived?)** is a focus upon identifying evidence to ascertain whether or not the learning outcomes (from Question 2) have been achieved. Student learning managers analysis, evaluate, compare and contrast evidence to deal with

**Question 8 (How will I inform the student about their progress?)** This question is the planning of pro-formas and processes used to inform the learner and stakeholders about progress, and to begin planning the next learning journey. The compilation of the 8 LMQs becomes the student learning manager's plan of action and a teaching/ learning cycle is commenced.

## **THE PORTAL TASK**

At the very heart of the BLM approach are the 'Portal Tasks' that are embedded in each year level. Portal Tasks are the conceptual and practical mechanism through which 'theory' is connected to 'practice', and 'content' is integrated in demonstrable student

outcomes by means of creative tasks and assessment. An analogy may be seen in the World Wide Web where a portal is a web site (e.g. the search engine *Google*) acting as a 'doorway' to useful pages, and possible news or other services. Thus Portal Tasks require and encourage collaborative networks between university staff, school-based administrative staff and classroom teachers and the community. This imperative means that the former 'distant' relationship of the university towards 'prac schools' cannot be sustained. New, equally responsible arrangements have been hammered out to implement the BLM and to sustain it across different employers and levels of schooling.

For most BLM students, portal tasks are undertaken in schools or training institutions but could include other sites as well. The Portal Tasks culminate in a 50-day internship. In this way, the theory and its application are both a body of thought and a lived experience. These two aspects are inseparable. Any excessive slipping one way or the other, to the side of analytic learning theory or to the side of practical experience, is a deviation from the domain of 'learning management'.

A Portal Task is defined for student teachers as a 'learn by doing task' and its composition is the product of a university/school collaboration. A Portal Task has four distinct components: (1) a series of agreed developmental outcomes; (2) task descriptors that detail the scope and sequence of the Portal Task; (3) a criterion that articulates performance across a series of developmental levels that is used to assess the student learning manager's performance; and (4) a schedule of agreed times for staging the Portal Task.

A Portal Task begins life in discussions held between the university staff and the 'in-school' learning manager. A task, typical of daily teacher activity and commensurate to the student's developmental level, is developed and embedded in the in-school learning manager's daily teaching program. It is dedicated to achieving learning outcomes in students in remarkable ways rather than being a 'university assignment to be completed'.

Once the portal task is established, 'backward mapping' establishes pre-requisite knowledge and skill sources, which can include lectures, workshops and tutorials. The student participates in the portal task planning, using a Learning Management Plan based on the 8 LMQs, and frames the university knowledge underpinnings in ways that foster a theory/practice bridge.

## CONCLUSION

The school system itself needs a spring clean to bring it into alignment with emergent needs. In turn teacher education has a leadership role to play in changing its principles and practices to meet and extend these needs. The BLM is part of a response by schools, teachers, school authorities and communities to deal with large-scale demographic and lifestyle changes in an emergent learning society. The recognition that teacher education is no longer a university problem but rather an education industry responsibility, is a step towards the redesign and implementation of both a different 'teacher education' model and a differently endowed learning manager workforce.

The success or otherwise of the BLM in an environment where the light of innovation has not shone brightly will be determined by its outcomes. These we suggest are properly focused on the success of learning managers in achieving learning outcomes in clients, whatever level of education and training in which they elect to work. This capacity will be embedded within a constellation of attributes that mark the learning manager as a 'knowledge worker', including: confidence and capacity to manage their own learning; capacity to perform under conditions of risk; ability to judge their own effectiveness; capacity to formulate and solve problems related to the organization's business; superior skills in networking, use of ICTs and learning and sharing with others. The testing of such 'hunches' is underway.

## REFERENCES

- ANTA (1999) *A new look at the labour market*. August, Brisbane: ANTA.
- Bauman, Z. (1997) 'Universities: Old, New and Different', in Smith, A. & Webster, F. (eds) *The Postmodern University? Contested visions of Higher education in Society*, Buckingham: Society For Research into Higher Education & Open University Press, pp.18-26.
- Bentley, T. (1998) *Learning Beyond the Classroom: educating for a changing world*, London: Routledge, p.38.
- Beattie, M. (1997) 'Fostering reflective practice in teacher education: inquiry as a framework for the construction of a professional knowledge in teaching', *Asia-Pacific Journal of Teacher Education*, 25(2), pp.111-128.
- Carnevale, A. & Rose, S. J. (1998) *Education For What? The New Office Economy*, Princeton, NJ: Educational Testing Service.
- Casey, B. & Howson, P. (1993) 'Educating preservice students based on a problem-centred approach to teaching', *Journal of Teacher Education*, 44(5), pp.361-369.
- Darling-Hammond, L. (2000) 'Teacher Quality and Student Achievement: a review of State Policy Evidence', *Education Policy Analysis Archives*, January 2000, 8(1).
- Dembo, M. H. & Eaton, M. J. (2000) 'Self-regulation of academic learning in middle-level schools', *The Elementary School Journal*, May, 100(50), pp.473-490.
- Education Queensland (2000) *2010 Queensland Education*, Brisbane: Office of Strategic Planning and Portfolio Services.
- Fletcher, A. (2001) *The Art of Looking Sideways*, New York: Phaidon.
- Florida, R. (2002) *The Rise of the Creative Class: and how it is transforming work, leisure, community and everyday life*, New York: Basic Books.
- Foley, K. (1998) 'The initial transition - from k-12 to post-secondary education: Bridging the Gap through Experiential Learning', *Challenge Paper prepared for the Council of Ministers of Education*, Canada.
- Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P. & Trow, M., (1994) 'Introduction', *The New Production of Knowledge: the Dynamics of Science and research in Contemporary Societies*, London: Sage.
- Gardner, H. (1985) *The theory of multiple intelligences*, London: Paladin.
- Gardner, H. (1999) *The Disciplined Mind: what all students should understand*, New York: Simon and Schuster.

- Graham, J. (1999) 'Improvement through inspection? Quality assessment and the role of OFSTED in the regulation of teacher education in England', *Asia-Pacific Journal of Teacher Education and Development*, 2(2), pp.29-41.
- Hammonds, K. H. (2001) 'Ford's Drive for Balance', *Fast Company*, May.  
URL: [http://www.fastcompany.com/lead/lead\\_feature/ford\\_balancingact.html](http://www.fastcompany.com/lead/lead_feature/ford_balancingact.html)
- Hargreaves, D. H. (1998) *The Creative Professional: the roles of the professional in the Knowledge Society*. London: Demos.
- Kelly, K. (1998) *New Rules for the New Economy: 10 Radical Strategies for Connected World*, New York: Viking.
- Kirby, P. (ed) (2000) *Ministerial Review of Post Compulsory Education and Training Pathways in Victoria*. Final Report, DEET, State Government of Victoria.
- Klein, J. T., Grossenbacher-Mansuy, W., Haberli, R., Bill, A., Scholz, R. W. & Welti, M. (eds) (2001) *Transdisciplinarity: joint problem solving among science, technology and society*, p.7, Basel: Birkhauser Verlag.
- Lamb, S. & Ball, K. (1999) 'Curriculum and careers: the education and labour market consequences of Year 12 subject choice', *Research Report Number 12*, Melbourne: Australian Council for Educational Research.
- Woodlands Group (2002) *Research Symposium on the Middle Years of Schooling*. A. Luke, R. Lingard, V. Carrington, N. Bahr, L. Hunter, C. Kapitzke, J. Mitchell, D. Pendergast, L. Stevens. Woodlands: August.
- Lundvall, B-A. & Borrás, A. (1999) *The Globalising Learning Economy. Report based on contributions from seven pilot projects under the TSER programme*, Luxembourg: Official Publication of the European Communities.
- Marzano, R. J. (1992) *A Different Kind of Classroom: Teaching with Directions of Learning*. Alexandria, VA: Association For Supervision and Curriculum Development.
- Nicolescu, B. (2002) *Manifesto of Transdisciplinarity*, New York: State University of New York Press.
- Nowotny, H., Scott, P. & Gibbons, M. (2001) *Re-Thinking Science: Knowledge and the Public in an Age of Uncertainty*. Cambridge: Polity.
- OECD Education Committee (1999) 'Thematic Review of the Transition from Initial Education to Working Life', *Interim Comparative Report*, Paris: OECD.
- OECD (2000) *Knowledge and Skills for Life: First Results from PISA 2000*, Paris: OECD.  
URL: <http://www.pisa.oecd.org/knowledge/home/intro.htm>
- OECD (2002) 'Understanding the Brain: Towards a new learning science', Paris: OECD Publications.
- Pfeffer, J. (1998) 'Danger: Toxic Company', *Fast Company*, November 19, p.152.
- Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon and Schuster.
- Queensland Catholic Education Commission (2001) *The Queensland Bishops Project—Catholic Schools For the 21st Century*, Brisbane.
- Queensland Government (2002) *Reforms for the Future Education and Training. A White Paper*, Brisbane.
- Ramsey, G. (2000) *Quality matters - Revitalising teaching: critical times, critical choices. Report of the Review of Teacher Education*. Sydney: NSW Department of Education and Training.

- Reigeluth, C. M. (1999) 'What is instructional-design theory and how is it changing?', *Instructional Design Theories and Models, Volume II: a New Paradigm of Instructional Theory*, pp. 5-29, Mahwah, NJ: London: Lawrence Erlbaum.
- Scherer, M. (1999) 'The Understanding Pathway: a conversation with Howard Gardner', *Educational Leadership*, 57(3), pp.13-17.
- Seltzer, K. & Bentley, T. (1999) *The Creative Age: Knowledge and skills for the new economy*, London: DEMOS.
- Smith, R. (2000) 'The future of teacher education: principles and prospects', *Asia-Pacific Journal of Teacher Education*, 28(1), pp.7-28.
- Stephenson, J. (1999) *Corporate capability: implications for the style and direction of work-based learning*, Formal public lecture delivered at the University of Technology, Sydney.
- Tom, A. R. (1997) *Redesigning Teacher Education*, Albany, NY: State University of New York Press.