

THE FUTURE OF TEACHER EDUCATION: REFLECTIONS ON AN INNOVATION

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This article is about teacher education reform. At the time of writing, teacher education (which is predominately the domain of universities in Australia), has undergone numerous critical reviews with little change effect. The teaching profession's struggles to cope with a changing world has been documented and an increasing push from Australian governments, at both the state and federal level for improved school outcomes are regular pieces in the national Australian press. A cadre of teacher education commentators call for a rethink on teacher education. This article showcases a disruptive model in teacher education and answers some of the ponderings around what teacher education could be and how it could be organised differently for the different world in which teachers now have to operate. More specifically, the article examines the Bachelor of Learning Management (BLM) which was developed at Central Queensland University in 2000 and is still in operation today. The BLM was the first major revision and redevelopment of teacher education in Australia in twenty five years: this fact alone makes the BLM an interesting case study.

KEYWORDS: Teaching, Teacher Education, Education Reform, Partnerships, Learning Management.

Over the past decade there have been countless inquiries conducted and numerous articles written each questioning the efficacy of teacher education in Australia (see for example: 'Top of the Class', 2007; Committee for the Review of Teaching and Teacher Education 2003; Sachs and Groundwater-Smith, 2006; Smith and Lynch, 2010). Most notably an article published in 2000 by Richard Smith (2000). Smith's (2000) central proposition was that the university-dominated pre-service teacher education model in Australia had served its historical life. His assertion reflected the central premise of previously cited articles and inquiries. More specifically, Smith argued for a rethink of the prevailing teacher education rationale, content and delivery model so that there was a better fit with the demands of an emergent society.

In the intervening period, the proposition, as outlined by Smith and others, has been explored through the Bachelor of Learning Management programme (BLM) at Central Queensland University. In this article, we first recall Smith's main points, as they provide insight into the challenges faced by teacher education in Australia and the key findings from three research studies of the BLM programme. Based on these research findings, we propose that the next

disruptive innovation in teacher education will be a form of syndication.

Smith (2000) argued that patterns of educational governance and the cultural contexts of education placed new demands on all levels of education as the state sought ways to adapt education policy to emergent domestic and international economic, political and social pressures. Drawing on the work of Bauman (1997, p. 21) he described the fragmentation of the 'games and rules of social life' that undermined and put paid to the then traditions and rationalisations of social and university life. Under these conditions Smith (2000) argued, appropriate connections between conventional university-based teacher education courses and schools would be difficult to achieve, no matter how much the universities might invoke tradition or precedent. This was the context in which the BLM had its genesis.

THE PRESSURE THAT LED TO THE DEVELOPMENT OF THE BLM PROGRAMME

Prior to 2001 CQU's teacher education programme, like others at that time, was the 4-year Bachelor of Education (B.Ed). It included studies in areas such as sociology, psychology, curriculum planning and a conventional 'practicum' regime. In general, the programme focused on what students know, rather than how they use that knowledge.

The B.Ed. programme was "Faculty Centric" in that its content and delivery was determined by the university and local schools accommodated student teachers for a programme of practical experience. While some academics established strong relationships with individual schools, university-school collaboration was largely tokenism in the sense that its structure and content had already been decided in absentia.

One of the most obvious features of the existing B.Ed. programme was its relative disinterest in outcomes in a time of speedy social change (OECD, 2002). While there had been the occasional cosmetic revision, the Bachelor of Education (B.Ed.) programme had changed little since the 1980s so that it hardly fitted the 1970-80s social ethos. Given the social movements of the late 1990s, its social relevance shortcomings were obvious. It was subject to the OECD generic point that the time was right for new solutions rather than re-runs of flagging remedies. For the development of the BLM, that meant a search for new solutions and strategies to replace the existing system of producing teachers. Smith's 2000 article and his appointment to the Central Queensland University Education faculty to undertake that task proved to be a catalyst because it coincided with system-level determination to rethink and rework the education arrangements in Queensland Australia.

In 1999, Queensland State Education: 2010 (or QSE2010) was published

(Education Queensland, 2000). It documented changes taking place in Queensland society and economy in the context of broader social change in Australia. It introduced the local education community to the term “Learning Society” and argued that policy change was required so that students were prepared for membership of a learning society (Education Queensland, p.11). In later iterations of QSE2010, policy was established for the transformation of teaching and curriculum and its infrastructures to ensure pre-school-to-adulthood education and training pathways for all students. In addition, teachers should be “managers of the learning experiences of children” rather than being gatekeepers of knowledge (Education Queensland, p.8) and that “teachers must continually renew their pedagogy and skills” to meet rapidly changing student and social needs (Education Queensland, p. 9).

Furthermore, and reinforcing some core elements of Smith's (2000) argument, the QSE2010 policy stated that graduate teachers should be supported “by innovative pre-service training that prepares teachers to teach in the new economic, social and cultural conditions” in order to prepare younger generations for their respective places as contributors to the global “learning communities” (Education Queensland, p.10). It is not difficult to see that this fortuitous policy blueprint endorsed Smith arguments and provided a powerful mandate for education change. Education Queensland's stance was especially important when it came to mobilising industry support for such changes in teacher education.

THE BACHELOR OF LEARNING MANAGEMENT PROGRAMME (BLM)

By 2001, Smith, Lynch and Mienczakowski argued that CQU no longer prepared “teachers” but was intent on graduating “learning managers” (Smith, et al, 2003). This publication signalled the significant changes in the rationale, content and delivery model of the BLM. The core premise of the programme was that graduates would graduate “workplace ready”, with capabilities including specialist knowledge and skill relevant to the school as a workplace, yet “futures orientated”. This latter characteristic, the capability to initiate and achieve alternate teaching and schooling futures, represented the continuation of Smith's “critical” perspective re-worked for an entrepreneurial and innovations culture. It embodied personal characteristics such as courage, planned risk taking, imagination, intuition and creativity (Lynch, 2004) and was aimed at halting the much discussed reproduction function of teacher education.

The original conceptual basis of the BLM degree, was anchored in four concepts namely: Futures; Networks and Partnerships; Pedagogy; and

Essential Professional Knowledge (See such background examples as Hargreaves, 2003; Marzano, Gaddy, Dean, 2000; Topper, 2000; Darling-Hammond, 2000; & Wehmeyer, Palmer, Agran, Mithaug, & Martin, 2000; Reigeluth, 1999; Shulman, 1986a and 1986b). Programme unit titles signalled the purposes of the degree and included Learning Management, Futures, Networks and Partnerships, e-Learning Manager, Entrepreneurial Professional, Essential Professional Knowledge in which Dimensions of Learning was the core, and Portal Task, amongst others. The first BLM graduates entered the workforce in 2003, following a compulsory internship.

The BLM represents a change of balance in teacher preparation between “curriculum” and “pedagogy”, or the what and the how (Smith, 2000). Smith believed that a B.Ed. tendency to emphasise curriculum development encouraged the postponement of the moment of implementation so that the doing teaching element of the process is left to the devices of the individual teacher, later. In that conception of preparation, the “how to teach” element is in danger of being thought of as a matter of subjective preference on the part of individual teachers. That is, each teacher graduate can make up their own pedagogical practice by drawing on a host of other B.Ed. programme elements such as multiple intelligences, coloured hats, productive pedagogies and new basics, whole word approaches and so on. Such a model mirrored the practices of teacher education staff, each of whom had their own favourite theories and approaches.

An important BLM critique of the B.Ed. is that it encourages a vast proliferation of teaching approaches amongst teachers and it relegates core principles and theory of pedagogy – teaching – to the realms of mystery. It is not difficult to see that if every teacher has a few favourite, unique approaches to their work, the number of pedagogies in use across a school or system reaches astronomical proportions and perhaps goes some way to explaining why there are problems of consistency in what and how areas like literacy, numeracy and science are taught. In short, the practice of locating teaching skill in the creative minds and actions of talented individuals is analogous to the work of poets but is also an indicator of an immature profession. Any semblance of professional coherence based around professional standards is an oxymoron in this radical individualistic approach, quite apart from the aspirational procedural “standards” that accreditation bodies champion.

The original BLM game plan had four distinctive elements that define what it means to graduate from the programme. These elements are: the idea of Learning Management; the new content indicated earlier; a move from knowing a lot about a few theories (“illumination”) to being able to apply

theories and undertake teaching that has definite outcomes (“performativity”); and significant decision-making and resource-based partnerships with the teaching industry. We briefly discuss each in turn.

1. LEARNING MANAGEMENT

The BLM programme is underpinned by the concept of Learning Management (see Smith and Lynch, 2010). The learning management concept was prompted by architectural design (an artful arrangement of resources for definite ends) and is best rendered as design with intent (see Fletcher, 2001). The design and implementation of pedagogical strategies signalled the major emphasis in the programme on pedagogical strategies. The keystones of the learning management premise was a new set of knowledge and skills, collectively referred to as a “futures orientation”: the conscious attempt to prepare graduate mind-sets and skill bases for local and global social and educational change. These features alone set the BLM apart from its predecessor, the B.Ed.

2. NEW CONTENT

In line with learning management, the BLM syllabus centred on four knowledge clusters: Futures; Pedagogy; Networks and Partnerships; and Essential Professional Knowledge. These clusters arose in collaboration with classroom teachers and various industry stakeholders as well as being scoped by a trans-disciplinary literature. The content was heavily influenced by research and theory to avoid promulgating yet another “good idea” and to ensure that the professional knowledge BLM elements had substantive intellectual support.

3. FROM “ILLUMINATION” TO “PERFORMATIVITY”

The BLM utilizes a device known as Portal Tasks. Portal Tasks are not practicums in a conventional sense, but designed experiences with stringent in-school requirements linked to on-campus courses structured so that students cannot escape the requirement of demonstrating their understanding and application of really important knowledge, especially pedagogical strategies. Portal Tasks cannot be successful if the classroom teacher mentor (the BLM student's learning manager) is not fully aware of the overall programme agenda and committed to it professionally. Without Portal Tasks, the BLM model is radically insufficient.

The Portal Task model is illustrated in the assessment algorithm developed for each unit: one piece of assessment for the conceptual issues and the second

piece for the demonstration of performance in the portal tasks. In short, the assessment regime intentionally sets out to ensure that student teachers get to know the field and are able to demonstrate applications of core concepts and procedures. Such an outcome is a necessary condition of the BLM model.

4. PARTNERSHIP

In order to achieve the intentions of the BLM, the approach relied on partnership arrangements with employers and schools. The reason for this is that if the brand name is the detailed specification of pedagogical strategies that achieve learning outcomes, then all participants in the production of graduates must know and be able to work with the same agenda. There is no advantage in the on-campus programmes championing the design of pedagogical strategies while school-based staff do “curriculum development”, for example. Moreover, in keeping with the BLM programme objective of reducing the number of personal, folk pedagogies teacher educators, teachers and schools use, aligning students and participating teachers both on campus and in schools was and remains a priority. In order to reach this end, the conceptual and procedural knowledge that is taught on-campus must be demonstrated by students in real-life settings such as schools and supported by in-school staff. Accomplishing this outcome goes some way in reducing the theory-practice gap so often attributed to teacher education programmes.

The partnership concept is fundamental to all of these aspirations. It implies that employers and schools are “partners” in a strong, substantive sense in so far as they jointly conceive ideas and policies, together with the provision of necessary resources. An important new element is that partnership entails the deployment of mentors from the employing agencies. These people work side by side with faculty so that the division between “us” and “them” is at worst minimised. The “we” in this model are all part of the community of learning that is the BLM culture and programme. To reiterate, a serious partnership with employers, schools and with each teacher mentor, is the core of the BLM, and the model will not function without it.

The overall aim of the BLM is captured by an expectation that BLM graduates are both workplace ready and futures-orientated when they graduate, namely that they:

1. can perform the role of teaching to a professional standard guaranteed by the experiences that they have had in the four knowledge areas;
2. they have a future-orientated mindset and demonstrated capability to be enterprising and contributing to making a real difference in

- learning outcomes in clients no matter the level or who they are;
3. they can demonstrate know-how in the workplace that has few divisions between theory and practice;
 4. have received mentoring from classroom teachers who know the logic and content of the BLM and pursue both; and
 5. have successfully completed a compulsory internship undertaken in the last year of the degree in which they perform as practising, in-service teachers.

The approach contrasts with the idea that schools or indeed employers must, by definition, have “induction” programmes for new teachers to ensure that they can do the work for which they are paid to do and that teaching prowess and expertise can only accrue over a long period of experience.

WHAT RESEARCH SAYS ABOUT THE BLM

Having discussed the aspirations of the BLM, aspirations which many may (and do) find hortatory and unrealistic if not dangerous, we outline the findings of three studies of the BLM. These studies, while small scale and fragmentary, go some way towards illustrating the possibility and efficacy of the BLM concept and, importantly provide an empirical platform for a further rethink of an expansion of BLM principles in a concluding section of this paper.

The first study was conducted by Ingvarson et al. (2005) of the Australian Council for Education Research (ACER) in 2004 and published in 2005. The remaining two are doctoral studies by Lynch (2004) and Allen (2008) respectively. Lynch compared BLM and B.Ed. programme graduate teachers' perceptions about teacher preparation with those of their practicum mentors, while Allen investigated the capacity of the BLM to bridge the theory-practice gap between the university and the workplaces in which BLM students operated. We now outline the findings of each, beginning with the ACER Study.

The ACER study was commissioned by the then Australian federal education minister, Dr Brendan Nelson. While CQU BLM developers were consulted, especially on the “futures” element that were completely unique to the BLM at the time, they were not involved in the ACER study. The study had two parts. The first was a Lickert scale survey of graduates from teacher education programmes across Queensland in 2004 (n= 536) and of school principals of these graduates (n= 324). The response rate was 26% for teachers and 40% for school principals. The survey questionnaire generated data about the following questions:

1. What are the perceptions of beginning teachers about the effectiveness

of current teacher education courses in Queensland?

2. To what extent were teacher education courses effective in preparing teachers for their initial teaching roles?
3. How did BLM graduate's perceptions about course effectiveness compare with graduates with perceptions of other graduates?
4. What factors characterise effective teacher education programmes?
5. What distinctive qualities of the BLM were most effective in preparing teachers for initial teaching roles?

The second part of the ACER study was an observational phase conducted in October and November 2004 with 31 teachers who had graduated in 2003. Eighteen of these teachers were BLM graduates from the Noosa or Rockhampton campuses of Central Queensland University. Thirteen teachers had graduated with a B.Ed. qualification from other Queensland universities. Observers were trained by ACER to use interview and observation schedules adapted from the Queensland Professional Standards for Teachers until they attained a high level of reliability (Ingvarson et al, p.18). Pairs of these trained observers interviewed and observed each sample teacher twice, during a literacy-oriented classroom session and a numeracy-oriented session respectively.

The observational study sought to determine whether, given the hype around the BLM, the classroom performance of graduates from the Bachelor of Learning Management (BLM) course at Central Queensland University (CQU) could be distinguished from graduates from other teacher education courses.

The ACER study concluded that Learning Management approach, that underpins the BLM programme, has empirical evidence for claiming that it achieved outcomes consistent with the rhetoric of the programme. Thus the BLM approach is producing graduates who believe that they are better prepared for the first year of teaching than are graduates from other Queensland universities. This belief is supported by observational evidence that showed a sample of BLM graduates taught at a significantly higher standard than a sample of graduates from other Queensland universities. School principals also believed that BLM graduates were better prepared than other graduates (Ingvarson et al, p.78).

Ingvarson et al. (2005) found that definite components underlie the BLM's apparent success. We briefly outline these now.

1. EMPHASIS ON TRAINING IN A CORE MODEL OF EFFECTIVE PEDAGOGY

The BLM programme requires university staff and teacher mentors to present students with a basic architecture common to effective learning management,

no matter what is being taught. This architecture is found in the BLM Learning Design Process (8 Learning Management Questions) and in the Dimensions of Learning. It provides students with a common framework for designing pedagogical strategies that achieve learning outcomes in students. The framework puts high priority on linkages between outcomes, pedagogical practice and assessment. The programme that actively promotes a “consistently applied, 'deep structure' model of pedagogy, based on standards for effective teaching, appears to have born fruit” (Ingvarson et al, p. 79).

2. ACTIVE ENGAGEMENT IN LEARNING HOW TO USE THE MODEL

Students are regularly placed in workplace situations from the beginning of their programme. Work placements provide the opportunity and responsibility to apply the principles of effective pedagogy as defined in the programme. This element of the BLM requires that teachers in schools understand and apply the same, agreed model and have the capability to mentor and coach students. The university and employer partnership plays a strategic role in achieving this outcome.

3. STRONG LINKAGES BETWEEN THEORY AND PRACTICE

The assessment algorithm noted earlier ensures that all BLM graduate teachers not only get to know the field but are able to demonstrate applications of core concepts and procedures in situations. This essential element in the BLM links university units to workplace experiences in what is called the Portal Task. Teacher professional accountability is enhanced in a regime that requires student teachers to demonstrate that they can promote student learning on the basis of expertise.

4. AN AUTHENTIC PARTNERSHIP BETWEEN SCHOOLS, EMPLOYING AUTHORITIES AND THE UNIVERSITY

The partnership concept between stakeholders in which equal but different contributions are recognized and valued, lies at the heart of the learning management concept.

5. STANDARDS-BASED TEACHER EDUCATION

According to Ingvarson et al., the BLM programme is a thoroughgoing example of standards-based teacher education. This means that the criteria for judging the success of the programme are external to both the graduate performances and the programme itself. The emphasis on instructional rather than learning theory assists in achieving this outcome.

Having now elaborated the ACER study and its findings we now review two further studies into the BLM.

In his doctoral study, Lynch (2004) found, through an attitudinal survey of final year BLM students (n= 221; response rate of 37%) and their final practicum mentor teachers (n= 153; 25 % response rate), and through a series of focus interviews with mentors, (n = 85) that programme outcomes across all the CQU BLM campuses varied. Some were little different from the B.Ed. offered by the university previously despite lexicon changes in course names etc while in other campuses, there was a process of transition from the B.Ed. to the BLM premise (Lynch, 2004).

In general terms, Lynch found strong outcomes in achieving “workplace ready” graduates across all six CQU domestic campuses, but strikingly less evidence of a “futures orientation”. He argued that unless mentors of BLM students (teacher-in-schools) were accomplished in exercising a futures orientation, rather than assuming that mentors would be prepared to teach it, this aspect of the BLM would not be fully realised. For example, Lynch did not find any schools or teachers in his study that were attuned to the global social changes taking place around them. Consequently, there was little reason to account for them in the preparation of teachers or presumably, their own students in any of Lynch's sample schools.

Allen (2008) in her doctoral study conducted at one of CQU's campuses compared the logic of the BLM with the effects of university lecturers and school mentors on the teaching practice and beliefs of recent graduates employed in a school system. Her results indicated a number of important points. First, where there is a weak partnership between schools and the university, the logic of the BLM breaks down and often becomes non-existent as the “B.Ed.” mindset and practice dominates both university and school staff. This gap shows itself in such things as failure by university staff and in school mentors to establish and nurture the required relationships with schools, principals and teachers. While pressure of work and other factors play a part, some university and in turn school staff do not comprehend the fundamental importance of partnership for the achievement of learning management outcomes or do not see it as a worthwhile exercise. This finding suggests that the “us and them” mentality of conventional school - university teacher education programmes is exceedingly resilient, despite efforts by both the university and employers to initiate a different relationship and practices.

Second, as with Lynch's findings, where the logic of the BLM is unknown to or is not sustained by either lecturers or mentor teachers, the logic is undermined and has little effect on the graduate teacher. Here Allen provided evidence that university staff either ignored the BLM theoretical framework or

actively undermined it by substituting idiosyncratic, alternative, interest-based content in their teaching. Allen's data show clearly that the school ethos of every teacher doing "their own thing" was shared with university-based staff. Similarly, teacher mentors required student teachers and later graduates to conform to school practices whether they fitted the formally agreed model or not. For others, there were both misunderstandings and often little understanding at all of BLM concepts and practices. Allen's study shows that amongst both university and school staff, the appreciation of the BLM's avowed intention to develop a "consistently applied, 'deep structure' model of pedagogy, based on standards for effective teaching" (Ingvarson et al, p. 79) was weak, in spite of several years of professional development and learning, with university-based staff and in the school system.

Third, where lecturers and teachers insist on teaching their own knowledge components outside of the BLM curriculum, such as substituting constructivism and learning theory for elements of instructional theory or dimensions of learning, or requiring student teachers and new graduates to conform to school practices that run counter to learning management precepts, the BLM model collapses.

To be fair, our own experiences in higher education indicate that there are few rewards in universities for the conduct of programme like the BLM that are heavily professional and are time-heavy in development stages. Similarly, if the BLM model is poorly understood and implemented, it appears to have few upsides for schools as the different demands of the BLM are perceived and interpreted as "additional work" when viewed from the old "prac" model context. This is especially so when key players constantly reinforce the term "prac" in face-to-face discussions and written communications between the university and schools. Under these conditions, preparing the next generation of teachers is more a chore for schools rather than a core part of the professional work of certified teachers with definite positive spin-offs for teachers, schools and universities.

In short, the studies by Lynch and Allen show that the very elements lauded by Ingvarson et al. as the drivers of a successful pre-service teacher preparation are paradoxically the ones perhaps most likely to generate resistance in university Schools of Education and in schools. This co-production of the *status quo* by self-generating mindsets and interpretive frameworks remain as fundamental reasons why it is difficult to change the practices of schools and Schools of Education. The next round of learning management implementation then must take these politico-contextual conditions into account.

On yet another front, ten years have passed since the initial development and inception of the BLM programme concepts. There has been an explosion in the science of learning and in the interim period developments in domains such as Web 2.0 have shaken the orthodoxy of traditional schooling by introducing many new potential teaching and learning media. While such emergent trends formed the content in BLM courses a decade ago, they did not constitute core knowledge competencies and importantly they were not modelled for programme delivery.

Further, both university teacher preparation regimes and the schools are faced with quite far-reaching effects on teaching practice by these developments that in the BLM model can only be resolved collaboratively in real-time. Given these findings we suggest that it is time for a further change and updating of BLM precepts.

THE IMPLICATIONS FOR THE FUTURE OF TEACHER EDUCATION

The research evidence reported here provides pointers for what needs to be changed if graduates are to be better prepared for work in an emergent world because it identifies areas of constraint and restraint in teacher education context. More specifically, we can conclude that the foremost ingredient required in teacher education is an effective university- school partnership that is effective not only because it is sustainable in respect to performance but also as having real mutual benefits. Put simply, unless teacher education gets partnership right, all other attempts to re-engineer teacher education will be defeated by different logics in the sectors.

It is reasonably clear in the ACER evaluation (Ingvarson et al, 2005), in Lynch's work (Lynch, 2004) and especially in Allen's study (Allen, 2008), that an agreed agenda across the university teaching staff, the school-based mentors and the students, prevents significant break downs in understanding and purpose across participants in teacher education. It confirms research findings in other fields where merely fostering customer orientations in order to guide innovation and research is insufficient to guarantee quality outcomes (Wagner, 2009, pp. 8-9). Lynch's findings about "futures-orientation" for instance shows that waiting for the university, individual schools and their staff to make the required changes is unproductive. Put simply, partnership and mutual benefit are the sine qua non of change processes in teacher education that overcome differences in sector logics.

Allen's work provides specific insights into why breakdowns occur. They include:

1. The unequal contributions made to successful graduate outcomes by the workplace and university and the need to coordinate them;
2. The need to manage real or potential fragmentation in the on-campus teaching, workplace performance and mentoring that supports the performance stands of the programme; and
3. The effects of hierarchy where the responsibility for programme design and development lies with the university but the workplace has greater responsibility for implementation than ever before.

It follows that significant input into the conceptualisation, planning and implementation of a teacher preparation programme must originate from stakeholders defined more broadly than university committees and “prac” consultative groups. The university-school-employer nexus needs to be seamless so that teaching staff and students experience continuities in curriculum, responsibilities and obligatory procedures, desired outcomes and purposes. Compared to the present model where not all collaborators are treated equally, these are new contexts for teacher education and the other learning industries (Wagner, 2009, pp. 8-9) with new opportunities.

These attributes in turn demand a different mode of relationship management compared to what we argue are the now obsolete hit-and-miss “prac” model monopolised by school settings. In the case of the BLM, the effective partners are those schools and organisations that can be described as innovation suppliers, or those that orchestrate what happens in the workplace in ways that are usable for the BLM's assumptions and underpinning knowledge sets to produce teaching graduates. The relevant players are those that understand the positioning of the “student teacher” and “graduate teacher” in the emergent education market and the social trends that shape the capabilities required by graduates. In contrast to the conventional teacher education model, it is no longer valid or indeed possible to see innovation as just the more effective transmission of the teacher education curriculum to student teachers.

The present and future context comprises disparate constituents with interests in the outcomes of the schools and training organizations, that “speak back” (Nowotny et al. 2003). That is, there are additional, competing claims on schooling and learning, and in turn, teacher education that arise from outside education institutions. Moreover, the realisation is growing that learning and teaching no longer refer exclusively to the work of traditional teachers or university lecturers. Learning, and in turn people who can manage learning, are demanded more generally. The challenge for schools

and teacher education is to get their respective practices synchronised with social conditions and new expectations for learning and schooling, and in turn “teacher” (sic) education.

It follows then that the rhetorical reliance on “partnership” and collaboration in teacher education requires a re-assessment of “collaboration for what?” If university staff and school teachers are “symbolic analysts” (Reich, 1991) who take professional pride in their capability to achieve agreed outcomes, and who network widely in order to ensure that the appropriate learning service is enjoyed by clients, then they are knowledge workers. In the knowledge-creative society, the corollary is that, compared to the teaching/teacher mindset of conventional teacher education, knowledge workers celebrate the capability to reach mutually agreed goals in a collaborative context rather than prizing unique approaches and individual preferences, despite their individual excellence in being creative, innovative and entrepreneurial. This change of mind and skill set or needed make-over for teachers and teaching (Ministerial Advisory Committee for Educational Renewal, 2004, p. 9), we have repeatedly referred to as learning management, a concept that goes well beyond merely tweaking conventional teacher education programmes.

FROM 'PARTNERSHIPS WITH SCHOOLS' TO 'UNIVERSITY - LEARNING INDUSTRY SYNDICATIONS'

Bauman, like Nowotny et al. (2003), indicates that learning occurs in an increasingly unpredictable and irregular social world in which supply and demand is neither linear nor stable, and labour is shaped by complex patterns of anticipations, time and space. The implications of Bauman's observations are that there is a need to shift from content delivery to capacity building, from supplying curriculum to co-creating curriculum, from supplying education to navigating learning networks (McWilliam and Haukka, 2008, p.663).

Taking these implications one by one, it is apparent that: (1) capacity building has intent, namely the capacity to use particular capabilities that enable the “teacher” to operate in a knowledge-creative society; (2) co-creation clearly implies more than mere collaboration with people and things beyond the classroom and the school. Strategic alliance for mutual benefit is a more appropriate term; and (3) navigating learning networks refers to the capacity to mobilise resources and make extensive use of face-to-face and the Internet with the implications such shifts have for teachers, schools, schooling and teacher education (Awazu et al. 2009, pp. 51-58).

Moreover, taking the core elements of the research into the BLM as a benchmark for progress towards such ideals, the key driver of an effective teacher education model is a university-school partnership that is focused on performance and mutual benefit. This proposition implies an emphasis on developing a performance and development model of effective pedagogy that is reachable only if there is agreement across all sectors about the efficacy of the model and its outcomes. A spin-off from these imperatives is that theory and practice are linked in action-oriented ways to reach agreed ends in what we referred to earlier as “standards-based” teacher education.

Our argument is that the conventional partnerships between schools, employing authorities and the university are unlikely to achieve these outcomes systemically if left to individual universities, employing authorities and states. To reiterate, it is paradoxical that the very characteristics that our research has shown to contribute to a successful programme are, we think, the ones most likely to generate resistance in university Schools of Education and in schools.

In order to deal with this minefield, our view is that the preferred arrangement for strategic alliances with the producers, orchestrators, brokers, disseminators and users in teacher education— what used to be called collaboration or even partnerships – is “syndication” (Smith and Lynch, 2010, pp. 230-241). Using the research presented earlier as the theoretical platform, the underlying premise of syndication is the co-creation of what might be loosely called a maturing of the community of practice concept in contemporary society.

Syndication goes beyond what is currently understood by partnerships and alliances to an agreement about making available relevant services, resources, capacities and content to other players “in the game” to use for agreed ends and mutual benefit. Put simply, a syndicated partnership is developed without the impediment of traditional employer or university boundaries and lines of demarcation that rely on “us” and “them” distinctions.

For illustrative purposes, we envision a syndicated model for teacher education analogous to the “teaching hospital”, so that there is a physical synergy between local schools, community bodies and employers and a university faculty. The resulting “syndicate” develops collective goals and language sets that authorise the co-opting of members' businesses in order to harness knowledge, skill and resources for mutual benefit, namely highly accomplished graduates and constantly up-skilled teachers (Smith and Lynch, 2010).

The core contribution of syndicated business is that purposes, outcomes and procedures are agreed in advance and subsequent operations are made seamless across each participating organisation so that the syndicate marches to its own collective drum. As the research showed, while the BLM was an attempt to reposition teacher education for a changing society, it did not go far enough in taking on the politico-contextual conditions of the various systems that make up teacher education and their competing purposes. Syndication means that boundaries between university, school, college and community organisations blur for the purposes of teacher education outcomes. Moreover, once syndicate agreement is reached about purposes, outcomes and procedures, participants are responsible and accountable for delivering them. In this way, syndication adds depth and immediacy for users across agencies and organisations and operates for the mutual benefit of all players (Smith and Lynch, 2010).

Syndication has definite benefits for shifting school, schooling, teachers, teaching and teacher education into the 21st Century. It depends for its success on real-time social collaboration that is at the heart of all professional activity. It is not difficult to see how syndicated arrangements offer potential advantages to schools and universities as they struggle to improve teaching and learning practice and reach performance targets. A syndicated agreement then is the core element in our envisioned teacher education programme compared to the more traditional matters such as the fleeting moments of “prac” teaching arrangements, school visits and so on (Smith and Lynch, 2010). Our view is that if governments, universities or school systems want to intervene in the teaching practices of schools or the “quality” of teacher graduates then there is little choice but to syndicate the whole operation. Other approaches have proved ineffectual against legacy and boundary-riding factors in universities and schools.

SUMMARY AND CONCLUSION

This paper identifies some important elements for changing the structure and content of teacher education models including evidence-based pedagogical practices, a different professional knowledge content set, social change and a more futures-oriented view of teaching work. These elements, we argue, are unlikely to eventuate in an evolutionary manner in the conventional B.Ed. model. Accordingly, we propose an alternative syndicated arrangement to manage and lead teacher education into quite different configurations designed for graduating futures orientated teachers equipped to work in the 21st Century learning industry.

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