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# Reforming Teacher Education: From 'Partnership to 'Syndication'

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## Abstract

In this article, we describe a teacher education program that attempted to deal with a teacher quality agenda by changing both the content and mode of operation of a pre-service teacher education program. We first describe the program and its differences from the standard BEd model, and then comment on research conducted into the program. We conclude the article with the proposal that robust, syndicated partnerships between schools and universities are the most likely arrangement to foster significant changes in teacher education.



In Australia, as in like countries such as the United Kingdom and USA, there have been countless inquiries conducted and numerous articles written each questioning the efficacy of prevailing teacher education regimes (see for example in Australia: Craven Teacher Education Review 2014; Top of the Class, 2007; Committee for the Review of Teaching and Teacher Education, 2003; for example in the United Kingdom: Furlong et al 2006; Donaldson, 2011; MacBeath, 2011; for example in the USA, Zeichner, 2014; Cochran-Smith and Zeichner, 2009). Commentators such as Smith (2000) called for a rethink of the prevailing teacher education rationale, content and delivery model so that there was a better fit with the demands of a fast-changing society. Drawing on Bauman's (1997, p. 21) notions, Smith (2000) pointed to the fragmentation of the 'games and rules of social life' that underpinned the traditions and rationalisations of 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. Simultaneously, governments were seeking different kinds of outcomes from school education that required different kinds of teachers (e.g. Education Queensland, 2000).

In more recent years, researchers such as Hattie (2012; 2011; 2009; 2003) and Hargreaves and Fullan (2012), for example, have focused educational policy attention on the quality of teaching, citing studies which indicate that a teacher's teaching is a key variable in students making the required learning gains in schools. This policy focus has once again focused further attention on the substance and quality of teacher education and the mechanisms of school reform (Mourshed et al, 2010).

In light of these circumstances, we provide an insight into a teacher education program that was designed to deal with this teacher education quality agenda. We refer to this program as the 'New Program' (NP) to distinguish it from the traditional Bachelor of Education program (B.Ed) that preceded it. The BEd has been the dominant Australian teacher education model since the 1980s. The NPs' aim was to create graduate teacher capabilities that meshed with the profile of the Knowledge Society (OECD, 2010; 1996) and the "effective teaching" evidence-base which has emerged over past decades (Smith and Lynch, 2010; Hattie, 2009; Fullan, 2007; Scheerens, 2000; Schacter and Thum, 2003).

### **Preparing Quality Effective Teachers**

Winch et al (2013) identify three kinds of teacher knowledge necessary for successful teacher practice. The first is "that element of 'know-how' which teachers clearly manifest in their practice but which cannot be rendered explicitly in discourse about it" (2013, pp. 3-5). Such professional expertise, encompassing tacit situational understanding, routinized procedures and intuitive decision-making, is similar to what Marzano et al (1997) refer to as 'procedural knowledge'. In the course of experience, situational understanding, routinized procedures and intuitive decision-making become habitual, automatic and ultimately 'declarative'. The second is technical knowledge that enables a teacher to plan and control a process, to explain and predict the success or otherwise of an intervention, to deal with curriculum and assessment matters. Such knowledge is universal, teachable and precise.

Critical reflection, or a review of the past and present as a means for sustaining and improving teaching performance into the future, is the third kind of knowledge characteristic that teachers need. It is clear that reflection needs something to 'reflect' with, some ideas or tools to use in order to compare and contrast, induct, deduct, analyse, problem solve and otherwise exercise critical analysis skills. Normally, that background is provided by teacher culture through staffroom conversation and 'common sense' versions of theories about students, their families, society and educational policy. The era in which they undertook their preparation may also influence what teachers perceive to be 'theory' that forms the vehicle for reflection. It is important then for teachers to go beyond this, to have other sources of new ideas on a regular basis.



Winch et al (2013) then summarise the demands on teachers as practical understanding and know-how, a good conceptual understanding of education and teaching, and the ability to understand, interpret and form critical judgements on empirical research and its relevance to their particular situation.

Drawing together the discussion so far we propose that teacher capability is an **integration** of knowledge, skills, personal qualities and understanding **used appropriately and effectively** in familiar and highly focused specialist contexts and “in response to **new and changing** circumstances” (Stephenson, 1999, p. 1). Stephenson’s approach captures the qualities set out by BERA-RSA (2014) and in many other proposals for the reform of teaching and teacher education. Nevertheless, there is not yet a “coherent and systematic approach to professional learning from the beginning of teacher training and sustained throughout teachers’ working lives” (BERA-RSA, 2014, p. 4). Part of the problem is that there are few examples of a “coherent and systematic approach to professional learning” that provide sign posts for how to do it, especially in teacher education. In the following section we detail one such example and from which we develop a series of propositions for teacher education in the concluding section.

### **The New Program<sup>1</sup>**

The new degree’s principles and structures were established by a Working Party consisting of teacher educators, teachers from government, Catholic and Independent schools, teachers’ unions and the local state teacher education accreditation Board in Queensland, Australia. . The Working Party began with a critique of the existing B.Ed model with which teacher were not happy and the immediate challenge facing teachers dealing with the effects of social change on schools evidenced by such things as changing family structures, the multicultural society, and labour market pressures.

Of particular interest was the resolve in the NP to emphasize ‘teaching’ rather than ‘curriculum development’ which was standard fare in the BEd. The Working Party was keen to focus on the ‘doing’ or ‘how to’ components of teacher preparation to counter the idea that teaching practice is determined by the subjective preferences of individual teachers. There was a determination by participants to consolidate what is known about effective teaching in the new degree rather than relying on the legacy that there are as many teaching approaches as there are teachers. They were also keen to ensure that the NP was driven by a few unifying principles so that the focus on teaching was sustained across the different disciplinary and academic interest areas of teacher educators.

Accordingly, the emergent program structure was anchored in four concepts, namely: *Futures; Networks and Partnerships; Pedagogy; and Essential Professional Knowledge*. The future-orientation was motivated by the rapid pace of social change both domestically and internationally and its effects on such things as the Queensland (an Australian state) economy and labour market<sup>2</sup>. (Novotny, H., Scott, P., Gibbons, M. 2001; Stephenson, 1999; Seltzer and Bentley, 1999; Luke and Hunter, 2000; Schofield, 1999; Luke, 1997). The industry representatives on the Working Party argued strongly for systematic study and application of network and partnership theories to prepare new teachers for a school sector aligned more closely with communities and for the effects of Web 2.0 and communications technologies more generally. These were also global concerns at the time (Tuomi, 2005). Pedagogy and the associated professional knowledge placed unequivocal emphasis on explicit pedagogies and effective teaching (Marzano, 2009; Reigeluth, 1999; Creemers, Scheerens and Reynolds, 2000).

Program 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<sup>3</sup> (Marzano and Pickering, 1997) was the core; and Portal

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<sup>1</sup> The ‘New Program’ was known as the Bachelor of Learning Management or BLM and was staged at Central Queensland University, Australia.

<sup>2</sup> See <http://deta.qld.gov.au/publications/resources/report-99-project-2010.pdf>

<sup>3</sup> For details see McREL located at <http://www.mcrel.org/dimensions/whathow.asp>



Task, amongst others. The first graduates entered the workforce in 2003, following a compulsory internship of almost a year (see Smith and Lynch, 2010).

The NP was underpinned by the concept of teacher capability, which the architects of the program termed 'Learning Management' in order to signal and capture the agreed NP content and its intentions (see Smith and Lynch, 2010). The Learning Management construct was based on Fletcher's (2001) concept of architectural *design* as an *artful* arrangement of resources for definite ends rather than 'business' and is best rendered as 'design with intent'. The *design and implementation* of pedagogical strategies for which there is research-based evidence, signalled the major emphasis in the program on pedagogical strategies.

The Learning Management concept of future capability was co-opted from Stephenson (1999). In the case of a teacher preparation, the practitioner of Learning Management, as it were, would have a skill set enabling him/her to operate not just in familiar and highly focused specialist contexts, but in response to new and changing circumstances. The degree was thus committed to preparing graduate mindsets and skill bases for both global social and educational change and solving the myriad of pedagogical challenges teachers face day to day. The Learning Management concept was a theoretical set of ideas and a bundle of skills rather than being a mere synonym for 'teaching' (Smith and Lynch, 2010, p. 72). These features alone set the degree apart from its predecessor, the BEd.

Several other characteristics marked the degree as different from the mainstream teacher education preparation. First, the NP required the participation of local schools in a partnership arrangement, where the central premise was that each partner had an equal but different contribution to be made to the program. Further, partnership was important because student teachers spend considerably more time (than the previous BEd) in an assigned school (and classroom). A device known as 'Portal Tasks' or 'a designed in-situ teaching task', was linked to a series of 'on-campus' courses so that students could not escape the requirement of *demonstrating* their understanding and application of really important knowledge, especially pedagogical strategies in a work situation. These portal tasks were the embodiment of the partnership in that they had agreed performance standards and teaching content to be learnt and practiced. Further each Portal Task was flexible in design so as to mesh with the differing classroom situations and circumstances. It follows that such tasks were not feasible unless classroom teacher mentors were *fully aware of the overall program agenda and committed to it professionally*. Portal Tasks were recognised as a core component of the NP, without which little significant development of student teachers could occur.

Second, the assessment algorithm developed for each program unit required one piece of assessment for conceptual issues and a second piece for the demonstration of performance in the portal tasks. In short, the assessment regime intentionally set out to ensure that student teachers got to know the relevant academic field and were able to demonstrate applications of core concepts and procedures in a work setting by providing evidence of their work.

Third, the partnership arrangements with employers and schools was set in place by a series of agreement on what the program would achieve in terms of graduate teacher capacities. Employers, schools and university were "partners" in the sense that they jointly conceived ideas and policies, and negotiated the necessary resources across sectors. Staff from the schools and employing agencies were hired as mentors and in some cases as 'tutors' to teach parts of the on-campus program. The logic was that *all participants* in the production of graduates must know and be able to work with the *same* agenda. Moreover, in keeping with the program objective of reducing the number of personal, folk pedagogies that teacher educators, teachers and schools use, aligning students and participating teachers both on campus and in schools was a priority. In this way, the program took reduction of the 'theory-practice gap' head-on.

### **What educational research says about the NP**

In this section we review three studies into the NP. 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 studies by Lynch (2004) and Allen (2008) respectively. Lynch compared NP and BEd program



graduate teacher perceptions about teacher preparation with those of their practicum mentors, while Allen investigated the capacity of the NP to bridge the theory-practice gap between the university and the workplaces in which student teachers operated. Taken together these three studies provide a detailed insight into the efficacy of the NP in comparison to the pre-existing Bachelor of Education (B.Ed.) program regime.

In 2004 Federal Education Minister Brendan Nelson commissioned a review of the NP (see Ingvarson et al. 2005), based on positive feedback anecdotal reports about the program. The study compared graduates of the NP with BEd graduates from other Queensland (Australia) universities. There were two main components to the ACER evaluation of the program:

1. An observational study: This study involved 31 primary teachers who graduated in 2003 and taught in Queensland in 2004. Eighteen of these primary teachers had a NP from two campuses of the host university and the remaining thirteen teachers had qualifications from other Queensland university teacher education programs. Graduates were assessed by trained observers, using observational instruments that aligned with previously mentioned attributes of the Queensland Teaching Standard, as they taught literacy and numeracy programs in their respective classrooms (see Ingvarson et al., pp.15-24, 2005).
2. A survey study: This included a survey of all teachers who graduated from Queensland teacher education programmes in 2003 and taught in Queensland in 2004 (n = 537) and a survey of all school Heads associated with the NP in Queensland (n = 324) about their perceptions of the preparedness of their graduates from teacher education programs (see Ingvarson et al., 2005, pp. 27-52).

The brief for the evaluation was to focus on the outcomes of teacher education, not methods or procedures. The outcome measures used in the study, indicated that the approach produced graduates who believe that they are better prepared for the first year of teaching than graduates from other Queensland universities. The observational evidence showed that a sample of NP graduates taught at a significantly higher standard than a sample of graduates from other Queensland universities. School principals also believed that NP graduates were better prepared than other graduates (Ingvarson et al., 2005, p.78).

As an illustration, Figure's 1 and 2 exemplify the teaching performance of graduates when teaching literacy and numeracy in comparison to B.Ed. graduates. The NP graduates taught literacy and numeracy at a higher standard than BEd graduates on *all* of the metrics used of the observation study. Drawing on the findings of this evaluation study the program can be summarised as follows:

### **1. Emphasis on Training in a Core Model of Effective Pedagogy**

The NP required university staff and teacher mentors to present students with a basic architecture found in the Learning Design Process (8 Learning Management Questions) and in Dimensions of Learning<sup>i</sup>, common to effective learning management, no matter what is being taught. It provided students with a common framework for designing pedagogical strategies for teaching by placing high priority on linkages between outcomes, assessment and pedagogical practice. The program that is "consistently applied, 'deep structure' model of pedagogy, based on standards for effective teaching, appears to have borne fruit" (Ingvarson et al., 2005 p.79).

### **2. Active Engagement in Learning how to Use the Model**

In addition to students learning how to handle the core elements of the Design process and Dimensions of Learning, they are regularly placed in workplace situations from the beginning of their program. Work placements provided the opportunity and responsibility to apply the principles of effective pedagogy as defined in the program. This element of the program requires that teachers in schools understand the same model and have the capability to mentor and coach students (Ingvarson et al, 2005, P. 81).

Figure 1: Results of the ACER Observational Study- Teaching Literacy (Ingvarson et al 2005, p.21)

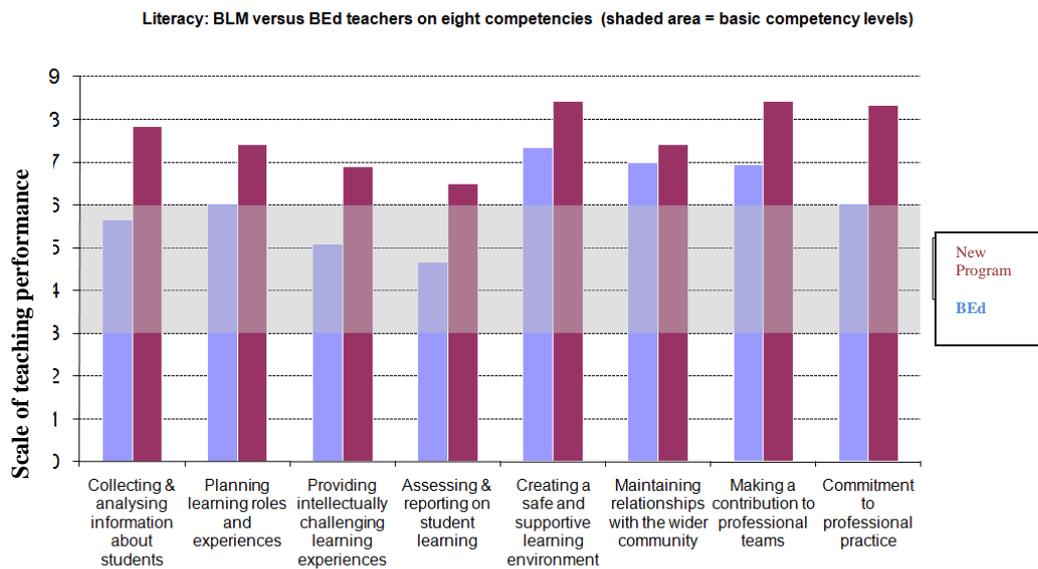
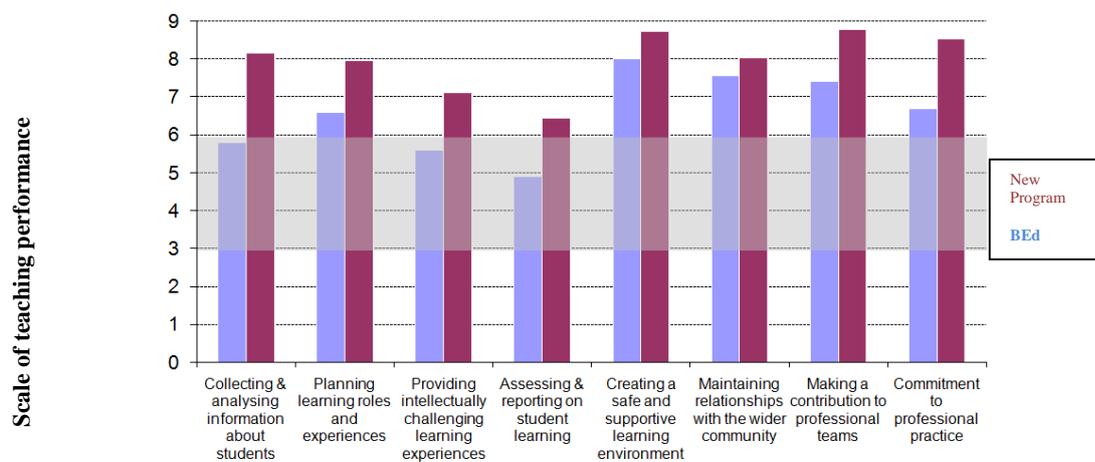


Figure 2: Results of the ACER Observational Study – Teaching Numeracy/ Ingvarson et al. (2005) p. 24



### 3. Strong Linkages between Theory and Practice

Each course in the program operated according to an algorithm of one piece of assessment for the conceptual issues and a second piece for the demonstration of performance in the workplace. This *essential* element in the program links university subjects to workplace experiences (Ingvarson et al, 2005, P. 81).

### 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 (Ingvarson et al, 2005, P. 82).

### 5. Standards-based teacher education

The NP is a thoroughgoing example of standards-based teacher education, where the criteria for judging the success of the program are external to both the graduate performances and the program itself (Ingvarson et al., 2005, p.83). The distinction between “instructional” and “learning” signalled here that



between, on the one hand, an emphasis on the internal cognitive, linguistic, affective, motivational mechanisms of the student compared to on the other hand, an emphasis on the overt performances and external products that a student produces. The latter favour explicit instruction and judge a student's performances and external products against standards that lie beyond the personal characteristics of the learner (Bernstein, 1975).

The second study into the NP was conducted by Lynch in 2004. His study compared final year teaching student outcomes from the NP with those from the final year of the pre-existing BEd.

Lynch's (2004) study of final year NP and BEd teaching students (mail-out survey  $n=221$ ; response rate of 37%), their final school experience mentor teachers (mail-out survey  $n=153$ ; 25 % response rate), and through a series of focus interviews with mentors, ( $n=85$ ) found that NP outcomes across several campuses of the staging university varied. Some outcomes were little different from the BEd previously offered by the university despite lexicon changes in study unit names, etc, while in other campus locations, there was a distinct process of transition from the BEd to the NP principles and practice.

Overall, Lynch found NP teaching students were rated highly for 'workplace readiness', compared to those from the BEd, but there was less evidence in mentor's comments about the elements of Learning Management, indicating that mentors involved in the NP needed greater induction into the framework. However, both NP teaching students and their mentors rated the NP and its attributes for preparing teachers far higher than did teaching students and their mentors in the B.Ed. The extended period of time that the teaching student was required to attend a 'real school' in the NP for teaching practice was a key reason cited for such high ratings.

The third study by Allen (2008) was conducted at one of the host university's campuses (where the largest NP and BEd cohorts were located), where she compared the logic of the NP with the ways in which the logic was implemented by university lecturers and school mentors in a particular school system. She found that where the partnership between schools and the university was weak, the logic of the NP broke down. In turn the former BEd mindset and practice began to predominate the NP focus. Moreover, neither the university nor school staff appeared to fully comprehend the fundamental importance of partnership for the achievement of learning management outcomes or did not see it as a worthwhile exercise. This finding suggests that the "us and them" mentality of conventional school - university teacher education programs 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 NP 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 NP 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 teachers doing 'their own thing' was shared with university-based staff. Similarly, teaching student 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 NP concepts and practices. Allen's study shows that amongst both university and school mentors, the appreciation of the NPs' 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 mentors insist on teaching their own knowledge components outside of the NP curriculum or by requiring student teachers to conform to school practices that ran counter to learning management precepts, the new model collapses.



To be fair, our own experiences in higher education indicate that there are few rewards in universities for the conduct of programs like the NP. They require serious professional commitment and are time-heavy in the development stages. Similarly, if the NP model was poorly understood and implemented, it appeared to have few upsides for schools as the different demands of the program were perceived and interpreted as 'additional work' when viewed from the old B.Ed '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, when the NP program model relied on different structures and processes. 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 most resisted by university and school staff in these studies. This reproduction 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. As Menter et al. (2012, p. 25) remark in their evaluation of a 'new' teacher education partnership arrangement, the implementation of new approaches to teacher education are not without difficulty and "part of this may be attributed to the very deeply embedded nature of expectations about teacher education – especially initial teacher education – that are held by those working within the system". The reform of teacher education and teaching therefore must take these areas of constraint and restraint in the teacher education context into account.

### **The Implications for the Future of Teacher Education**

The research evidence reported here suggests that an effective university-school partnership has substantial mutual benefits schools and teacher education. If the research reported here is indicative then without meaningful collaboration and partnership, different logics and interests in the different sectors will defeat reform movements.

The core issue appears to be that where there is an agreed agenda across the university teaching staff, the school-based mentors and the students, significant break downs in understanding and purpose across participants in teacher education are likely to diminish. Research in other fields indicates that for example merely fostering customer orientations in order to guide innovation and research is insufficient to guarantee quality outcomes (Wagner, 2009, pp. 8-9). As Lynch's findings about the 'futures-orientation' premise in the NP, for instance, show, the need for unifying leadership and organisation is high.

Allen's work provides specific insights into how breakdowns occur in teacher education. They include:

1. The unequal contributions made to successful graduate outcomes by the workplace and university. They need to be *coordinated*;
2. The real or potential *fragmentation* of purposes in the on-campus teaching, workplace performance and mentoring that supports the performance goals of the program. These need to be synchronised; and
3. Where the responsibility for program design and development lies with the university which then depends on the workplace for implementation, the *effects of hierarchy* are corrosive. Implementation has to be central to overall model.

It follows that the university-school-employer-other interests 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 university dominance of the traditional BEd model, these are new contexts for teacher education and schools that bring new opportunities as well (Wagner, 2009, pp. 8-9). A different mode of relationship management is required.



In the case of the NP, the effective partnerships across a variety of locations relied on agreement about the NP's assumptions and underpinning knowledge sets and the collaborative orchestration of the implementation stage based on those elements.

Partnership also relied on an awareness that the schools and other training organizations where student teachers were located, “speak back” (Nowotny et al. 2003). There are additional, competing claims on schooling and learning, and in turn, teacher education, that arise beyond universities and schools. For example, a local council pointed out that in its economic development plan, learning and teaching no longer referred exclusively to the work of traditional teachers or university lecturers. An early challenge for the NP was to synchronise with social conditions and new expectations for learning and schooling, and in turn “teacher” education, a process aided by robust partnership membership.

It follows then that the establishment of ‘partnership’ in teacher education requires a re-assessment of “collaboration for what?” In a knowledge-creative society, and the teaching/teacher mindset of conventional teacher education, innovations such as the NP require 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. The earlier discussion shows that such a change of mind and skill set requires leadership and organization to achieve the necessary make-over for teachers, teacher educators and teaching (Ministerial Advisory Committee for Educational Renewal, 2004, p. 9). The learning management concept is an attempt to do this in so far as it transcends the mere tweaking of conventional teacher education programs or technical expertise. It signals a 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).

#### **From ‘Partnerships with Schools’ to ‘University - Learning Industry Syndications’**

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 communications.

Moreover, in order to fulfil the NP outcomes, the key driver was a university- school partnership focused on *performance* and *mutual benefit*. The efficacy of the model and its outcomes was achievable only if there was agreement across all sectors about the theory and practice, and links to them in action-oriented ways to reach agreed ends. This is what we referred to earlier as “standards-based” teacher education.

In reflecting about the NP experience and the subsequent research about it, our preferred arrangement for strategic alliances with the producers, orchestrators, brokers, disseminators and users in teacher education is “syndication” (Smith and Lynch, 2010, pp. 230-241). 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’<sup>4</sup>, 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).

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<sup>4</sup> See <http://www.mottchildren.org/about-us/teaching-hospital> for details on the teaching hospital model



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. Syndication means that boundaries between university, school, college and community organisations blur for the purposes of teacher education outcomes while the various contributing entities retain their autonomy. In this way, once syndicate agreement is reached about purposes, outcomes and procedures, participants are *responsible* and *accountable* for delivering them because there is both corporate and individual entity benefit by doing so (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.

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