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Designing Postgraduate Pedagogies: Connecting Internal and External Learners

Parlo Singh, Bill Atweh, Paul Shield

Faculty of Education

Queensland University of Technology

Victoria Park Road, Kelvin Grove, Qld 4059

p.singh@qut.edu.au

b.atweh@qut.edu.au

p.shield@qut.edu.au

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ABSTRACT:

Learning is the new resource driving the knowledge economy. Now everyone is expected to make themselves available to learn → un-learn → re-learn. Much has been written about new modes of learning, as well the new technologies that promise to deliver information 24/7. Paradoxically, however, in the field of educational sociology there has been little systematic theorisation of the pedagogies designed to facilitate learning in the knowledge economy. Nor have there been systematic efforts to connect macro economic, technological and social changes to state official policies and institutional pedagogic practices. The Bernsteinian theoretical corpus models the power and control relations generating pedagogic discourses, practices and identities from the macro level of policy formation to the micro level of pedagogic interactions. It is therefore useful in examining the new pedagogies designed to generate the learning resources of the knowledge economy. In this paper, we draw on and extend Bernstein's theory of pedagogic discourse and identities to analyse the design and implementation of a postgraduate unit in educational research. This unit aimed to be: rigorous in disciplinary knowledge, technologically innovative, cost efficient; and responsive to diverse student needs and market contingencies.

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The de-centred market [position] oriented identities towards external competitive demands, whereas the segmental, serial ordering of the subjects of the curriculum oriented the identities towards the intrinsic value of the discourse. This tension between the intrinsic and the extrinsic is not, of course, new. What is new is the official institutionalizing of the [de-centered market position] and the legitimizing of the identity it projects. (Bernstein, 1999: 252)

Introduction

In this paper, we examine the pedagogic design of a Master of Learning Innovation research training unit Professional Applications of Research (EDN 611) offered in the Faculty of Education at the Queensland University of Technology. We suggest that this unit attempts to manage the tensions between the external demands of the market (de-centred market position) and the intrinsic demands of disciplinary knowledge and pedagogy /learning theories. The market position orients academic workers to the present, external, short-term demands of the market (consumption habits of students, competitive positioning in the sector, professional application of knowledge/skills). It is therefore a destabilising, outwardly oriented position – knowledge and skills are learnt and unlearnt as dictated by market contingencies. By contrast, the disciplinary knowledge position has oriented academic workers to the past, intrinsic, introspective demands of their specific academic disciplines. Knowledge is acquired for its intrinsic worth, and the pursuit of further learning is to gain disciplinary depth.

In designing university curricula/pedagogy, academic workers now have to manage the tensions between these two positions – the outwardly oriented, prospective identities constructed by market forces and state regulatory frameworks; and the inwardly oriented, introspective identities of disciplinary knowledge and sound pedagogical principles. The management of these tensions is not new. What is new is the official legitimisation of the pedagogic identities arising from these tensions. ‘We have a new pathological position at work in education: the pedagogic schizoid position’ (Bernstein, 1999: 252). This pedagogic position is Janus-faced – with one face always looking outwards to market and state regulatory forces, and the other face looking inwards to the introspective demands of disciplinary knowledge (Bernstein, 2000). *In this paper, we document the ways in which we managed these and other tensions in the design and conduct of EDN611 and thus constituted our own ‘pedagogic schizoid position’.*

We begin the paper by providing a brief description of Federal government policies on higher education in Australia. In addition, we review the changes to academic work constituted by

these policies. We then move on to provide a description of the unit EDN611 which is the focus of our case study. In the final section of the paper we draw on Basil Bernstein's concepts of pedagogic discourse and identities to analyse the design of the unit. We do not align ourselves with either the doom and gloom or naïve celebratory positions with regards to current Australian higher education reforms and pedagogic practices. Rather, our aim is to move beyond these two polarised positions to theorise the possibilities for good pedagogic practice in these new times.

Higher Education Policies – A New Agenda for Australian Universities

In terms of teaching and learning, the policy document, *Our Universities. Backing Australia's Future* (Nelson, 2003) begins by listing a number of significant problems facing Australian universities. These problems are identified as follows:

- considerable increase in course provision costs;
- need for increased resources in the longer term, including from additional income streams;
- significant duplication in some university activities and course offerings and far too many units with very small entitlements;
- under-representation of students from disadvantaged backgrounds;
- large numbers of students not completing university studies (approx. 30 per cent);
- over-enrolments of students → leading to overcrowding and adversely impacting on quality. (Nelson, 2003: 10)

The document then moves on to present a vision statement of reform underpinned by four key principles:

Sustainability: Maximum opportunity given to institutions, consistent with public accountability and social responsibility, to develop innovative responses to rapidly changing environments in teaching and learning.

Quality: A renewed emphasis on teaching and learning outcomes ... to ensure that students develop knowledge and skills that are relevant to their own needs and to those of employers, professional associations, labour markets and society.

Equity: Targeted intervention measures and new approaches to student financing to encourage participation and retention of under-represented groups, particularly Indigenous students.

Diversity: Institutions encouraged to forge distinct missions within the overall system and through greater collaboration between individual universities and other education providers, industry, business, regions and communities. (Nelson, 2003: 10-11)

Finally, the policy document signals the formation of a central institution and regulatory framework aimed at measuring teaching and learning performance outcomes. Central to this regulatory framework is a regime of 'monitoring academic standards' through a national system of testing generic graduate skills 'in the domains of logical thinking, critical reasoning, written communication and interpersonal understanding' (Nelson, 2003: 42).

Some of the responsibilities of the proposed *National Institute for Learning and Teaching in Higher Education* include:

- liaison with the sector about options for articulating and monitoring academic standards;
- improvement of assessment practices throughout the sector, including investigation of the feasibility of a national portfolio assessment scheme;
- facilitation of benchmarking of effective teaching and learning processes at national and international levels;
- development of mechanisms for the dissemination of good practice and professional development in learning and teaching.

(Nelson, 2003: 29-30).

This policy focus on teaching and learning innovation and performance outcomes signals significant changes in academic work. Change is constructed as inevitable (*Australian universities [have] nowhere to hide from the winds of change* (Nelson, 2003: 3)) and academics are positioned to take up this change through a centrally defined vision statement. At the same time, the policy discourse evokes the traditional reputation of Australian universities (*Australia's universities have a reputation for providing high quality educational experiences* (Nelson, 2003: 11)), and the present need to not only 'maintain' but also to 'enhance' this quality despite increased student numbers, fewer resources, and competition from other markets (Nelson, 2003: 11).

Clearly the state, through a series of policy documents, regulatory frameworks, and funding incentives is projecting new identities for academic workers (Coaldrake & Stedman, 1999). Bernstein (2000) suggests that by selectively recontextualising features of the 'past collective base to legitimate, motivate and create appropriate attitudes towards current change' the state attempts to project *prospective pedagogic identities*. Academic careers (that is dispositions and economic performances) are foregrounded by the state in the projection of prospective pedagogic identities. Thus, academic workers are encouraged to direct attention and energy to teaching and learning via a number of funding schemes and awards (teaching and learning grants, recognition of teaching excellence), as well as regulatory frameworks (benchmarks, national assessment).

State centralist discourses on Australian higher education can be viewed as part of a wider/global *conservative restoration* described as 'conservative modernism' (Apple, 2003: 59). Neo-liberalism guided by a vision of a weak state is the most important element within the project of conservative restoration. Economic rationality is the dominant discourse and students are viewed as human capital needing the requisite skills and dispositions to compete efficiently and effectively in the enormous hypermarket of the new global knowledge economy. The guarantor of democracy is consumer choice, and education is to be 'turned

over to the market through voucher and choice plans' (Apple, 2003: 60). Another variant of neoliberalism, however, is a willingness to spend more money on education, but only if education institutions 'meet the needs expressed by capital' (Apple, 2003: 62). Thus, resources are tied to reforms and policies designed to connect 'the education system to the project of making our economy more competitive' (Apple, 2003: 62). Key policy positions are currently taken up by neo-liberals.

However, according to Apple (2003) neo-conservatives also form a second major element within the alliance of conservative modernism. Unlike the neoliberals with their emphasis on the weak state, the neoconservatives are guided by a vision of a strong state particularly in terms of 'knowledge, values and the body' (Apple, 2003: 67). Thus neoconservatives advocate for a strong state evidenced in stronger regulatory frameworks in terms of national testing, benchmarking, and centralized standards. While seemingly contradictory, Apple (2003) suggests that neoliberal and neoconservative policies may reinforce each other in the long term.

While neoliberals call for a weak state and neoconservatives demand a strong state, these apparently contradictory impulses can come together in creative ways. The emerging focus on centralized standards, content, and tighter control paradoxically can be the first and most essential step on the path to marketization through voucher and choice plans. (Apple, 2003: 72)

Changes to Academic Work

The human capital model of education has led to the growth of a mass system of higher education, with 'increasing diversity in student population, both in academic preparation and in terms of language, socioeconomic background and other factors' (Coaldrake & Stedman, 1999: 3). Increased pressure has been placed on academics to meet the learning needs of this student cohort. At the same time, the expansion of higher education student numbers has not been matched by growth in government resources for staffing or general operating costs. Indeed, there has been a gradual re-positioning of the Government from 'being a patron of universities to a purchaser of higher education' with expectations of 'demonstrated accountability and returns for this investment' (Coaldrake & Stedman, 1999: 3). Indeed, the AV-CC (1999:9) suggests that the publication of university performance indicators, that is, data on each institution's annual performance against its strategic plan, is a means to ensuring quality of service provision. In addition, students are expected to take increasing responsibility for funding the higher education services that they consume. As fee-paying consumers of education, students now are 'more concerned about flexibility and convenience, quality of teaching, ensuring the status and quality of their rewards, obtaining more attention and feedback from staff, and having access to high quality facilities' (Coaldrake & Stedman,

1999: 3). Furthermore, the rapid growth and dissemination of knowledge both within and outside universities has produced a need to restructure curriculum to meet 'external needs and demands', rather than simply be reliant on the internal needs and demands of specialized disciplinary or departmental groupings. Finally, the growing power of networked computing and the convergence of information and communication technology holds the potential for radically changing the structure of the pedagogic relation or modes of pedagogic communication between teachers/learners and knowledge. Coaldrake and Stedman (1999: 3) suggest that five key factors impact on the work of academic staff in Australian universities, namely:

1. growth in higher education participation;
2. changes in higher education financing and accountability;
3. increasing knowledge and synthesis;
4. industrialization and industrial relations policy; and
5. information technology, and the transformation of teaching and learning.

Government priorities for higher education are clear: effective, efficient and low cost education for large numbers of diverse students; increased relevance of training for the job market, and research that connects with and addresses community problems (Zubrick et al., 2001). Moreover, governments have sought to tie funding to performance measures. In addition, the new electronic technologies have changed processes of knowledge production and dissemination, and significantly altered academic alliances, forms of collegiality and professional identities.

Theorising the Relation between Policy and Higher Education Pedagogies

Policy does not map directly onto the work of academics or the design of curriculum/pedagogy in higher education settings. Rather, the relation between policy and education systems can be interpreted through a policy cycle approach (Ball, 2003). This approach views the relationship between higher education practice and state education policy as 'mutually interactive' and 'non-linear' (Lingard, 2000: 102).

The concepts of *pedagogic recontextualizing field*, *pedagogic discourse* and *pedagogic identities* developed by Basil Bernstein (2000) offer a useful way of looking at the relation between state education policies and higher education pedagogic practices (see also Singh, 2002). Bernstein suggests that state education policies are recontextualised by agents within the pedagogic recontextualising field (PRF) into institutional vision plans, mission statements, and performance targets. The PRF is comprised of: (1) university departments of education, and (2) specialized educational research journals, professional organizations (AERA, AARE), magazines (Union bulletin, AERA report), specialized sections in newspapers (higher

education supplement), publishing houses and so forth (Bernstein, 1990). Crucially, however, agents within the PRF struggle to control the rules or principles for generating pedagogic texts (course objectives, unit outlines, online resources) and practices (teaching/learning encounters). Thus, within higher education institutions there may be strong contestation within and between various academic departments, and between these departments and institutional management over the content and form of curricula and pedagogy. The stakes are high in this struggle – for the group which exercises control over the rules for generating pedagogic texts and practices exercises control over the projection of academic and student identities (see also O'Meara & MacDonald, 2004).

Pedagogic discourse is the set of rules or generative grammar for embedding instructional discourse in regulative discourse. Importantly, pedagogic discourse is not a discourse but a set of principles or rules for selecting and embedding a discourse of knowledge and skills of various kinds and their relations to each other (instructional discourse), within a moral discourse which regulates the conduct of teachers and learners (the rules for engaging in pedagogic practice – online and face-to-face, what is expected of each party, and what happens if the rules of engagement are broken). Thus the instructional discourse refers to the rules for selecting, sequencing, pacing, elaborating, and evaluating knowledge content and skills. And the regulative discourse refers to the rules of appropriate conduct of all parties entering pedagogic relations (see also Ensor, 2004; Tyler, 2002).

Moore (2002) suggests that academics have to negotiate between the contract (market forces) and the covenant (intrinsic value of academic disciplines) when designing curriculum/pedagogy and thus projecting their own pedagogic identities (see also Tyler, 1999). Bernstein (2000) elaborates on the different *pedagogic identities* that academics are expected to negotiate at the institutional level:

- (1) de-centred market
- (2) therapeutic
- (3) disciplinary (singular)
- (4) professional (regional)

It is important to note that elements of all four forms of identity are likely to be evident in practice, and that the contradictions and tensions arising from these identities will need to be managed in the design and enactment of pedagogic practices.

Where an institution projects a *de-centred market identity* (D.C.M) the focus is on extrinsic, short term market needs, and thus the exploration of vocational applications rather than the

intrinsic, long-term disciplinary needs through the exploration of knowledge (Bernstein, 2000: 69). D.C.M identities are more likely to be projected by non-elite institutions, and also non-elite departments within elite higher education institutions. The identity of staff and students:

... are likely to be formed less through mechanisms of introjection but far more through mechanisms of *projection*. That is the identity is a reflection of external contingencies. The maintenance of this identity depends upon the *projecting* of discursive organisation/practices themselves driven by external contingencies. D.C.M position projects contingent, differentiated competitive identities. (Bernstein, 2000: 70)

The rules/principles of instructional discourse (what is taught, and how it is organized) are likely to be explicit and made transparent to students. Moreover, the pace at which students move through tightly organized segments of knowledge/skills is likely to be strongly controlled by lecturers and there is likely to be regular assessment to ensure that students have gained the predefined knowledge/skill outcomes (performances). Lecturers are likely to justify the selection and organization of curriculum content in terms of 'professional relevance' – what you need to know to retrain, re-skill yourself for changing work conditions (see also Beck, 2002).

By contrast, the rules generating the selection (what) and organization (how) of curriculum in a *therapeutic pedagogic* model are likely to be implicit or invisible. In this model of learner-centered curriculum, students may play a larger role in determining what they learn, how they learn, and how they progress through the course of learning. The therapeutic discourse is inwardly oriented, focused on the fulfillment of the inner competence or potential of individual students. Students may be encouraged to work on assessment tasks directly related to their personal interests, and hand in drafts of work for regular feedback from lecturers and fellow students. The therapeutic position encourages students to be inwardly oriented, introspective, focused on personal development and their personal educational journeys. Thus, in a Master of Learning Innovation course students may be encouraged to keep personal diaries, reflective journals about their learning experiences, auto-biographies of learning and so forth. Therapeutic pedagogies often complement de-centred market pedagogies, in that they offer inner stability and coherence to learners. By contrast, de-centred market pedagogies are based on short-term market defined skills and knowledge and therefore outwardly oriented and unstable. Because they are regulated by the fluctuations of market-demands they offer little internal coherency in terms of regulating the selection and organization of skills and knowledge.

The third form of pedagogic identity defined by Bernstein (2000) is the *disciplinary pedagogic identity*. Here the rules of instructional discourse (selection and organization of knowledge and skills) are regulated by socialization into specialized disciplinary knowledge (see also Beck, 2002; Nash, 2001). For example, sociologists of education may select key concepts in their

disciplinary field as part of a curriculum unit of work. The aim here is to socialize students into the intrinsic worth of educational sociology through induction into key concepts. The selection and organization of knowledge is strongly regulated by the lecturer who is responsible for ensuring that students achieve performance outcomes associated with induction into the disciplinary knowledge. Curriculum units are likely to be organized hierarchically so that students need to complete pre-requisite subjects before moving onto intermediate and advanced subjects. This hierarchical organization aims to ensure that students progressively build up a repertoire of knowledge and skills associated with disciplinary knowledge. The boundaries separating specialized disciplinary knowledge are strongly insulated and students are socialized into highly specialized discourses – ways of speaking, writing, reading, and looking at the social and/or natural worlds. Ungar (2000: 299) has this to say about socialization into specialized disciplinary knowledge:

Starting with conceptual anchors for framing information, the gaining of knowledge in a field tends to follow a spiral model, with new bits added to prior accumulations. But the narrowing and differentiation of specialities means that the sheer number and diversity of conceptual anchors continue to multiply. As proliferating technical terms and ideas are overlaid with new facts and frequent revisions, speciality knowledge domains become forbidding to outsiders.

A *professional pedagogic identity* may contain elements of both the disciplinary and de-centred market pedagogic identity. It is projected outwards to the specific needs of the profession rather than inwards to the intrinsic value of the knowledge. For example, in the case of an educational research subject, different specialized disciplines might be integrated, and their application to the profession of education explored in a curriculum unit. Rather than drawing on a singular discipline such as sociology of education, a professional pedagogic identity would integrate knowledge from various disciplines through a generic organizing principle. For example, the following generic research questions may guide the selection and organization of curriculum content across the singular disciplines of sociology and psychology of education: What is a research problem? How is data collected? How is data analysed? Professional pedagogic identities project outwards to the vocational needs of the profession. Thus the overarching principle determining selection and organization of curriculum content would relate to relevance to the profession. Consequently, knowledge relating to practitioner oriented research such as action research or the reflective practitioner may dominate curriculum content.

In what follows, we use the concepts of pedagogic discourse (instructional discourse + regulative discourse), and pedagogic identities (de-centred market, therapeutic, disciplinary, professional) to examine the design of the case study unit: EDN 611.

The Case Study – EDN 611

The EDN 611 unit was designed and implemented in Semester 1, 2005. It is the initial postgraduate research training unit offered in the Master of Learning Innovation course in the Faculty of Education at the Queensland University of Technology. The unit outline states that:

This Unit focuses on the needs of professionals for reading, understanding and evaluating professional research both within and across different paradigms. It assists students to develop skills in understanding and appreciating the process and techniques used in research in order to critically read and interpret a wide range of research studies. ... This Unit focuses on the needs of professionals to seek research knowledge that addresses specific problems or issues in their practice and to develop a positive attitude towards research in general. It assists students to search databases and other sources to locate published research reports in their field and evaluate them critically.

Further skills in planning and conducting research projects are developed in a follow up unit within the Faculty. As a compulsory unit at the postgraduate level, it also aims to ensure that students develop sufficient information literacy and academic writing skills to successfully complete the remaining postgraduate units in the Master of Learning Innovation course.

Open to masters and doctoral students, the Unit has been offered to students for about fifteen years in three different modes: (1) internal, (2) external and (3) block mode conducted during school vacations. However, the pedagogical experiences provided in the three modes were often quite distinct. In addition, the instructional content (knowledge and skills) varied depending on the specific focus of the different lecturers responsible for teaching the different modes. Moreover, when offered in external mode, the unit relied on printed materials and assessment submission with minimal use of a website. In addition, the external notes were based on one specific textbook which meant that it was difficult and expensive to update the textbook. Furthermore, the numbers of students enrolled in internal and block mode continued to decline, while the numbers in external mode increased substantially. This change in enrolment/learning mode may have been produced by the demands of women who represent the majority of enrolments. Given commitments of work (full-time or part-time), family, child-care and other responsibilities the preference for external mode of course delivery is understandable.

Principles of Unit Design

In general terms, four principles guided our design of the unit EDN611. These four principles included:

1. Innovative application of technology to: (a) merge online and face-to-face teaching contexts and thus provide on-campus and off-campus students with the same learning

- experience; (b) prepare and place all lecture notes, supplementary readings and tutorial exercises onto the website at the beginning of the semester.
2. **Scaffolded Learning via the Website Design.** The principles which guided our selection and organization (sequencing and elaboration) of instructional content were made explicit. Multiple channels of communication (multivocality) were made available to students so that they could seek assistance with learning when they required from peers and tutors (small group and whole class chatrooms, email facilities). In addition, links to other resource sites were placed on the website, and students were encouraged to post their own discoveries of useful links. Thus students were expected to navigate multiple sites and texts (hypertextuality).
 3. **Explicit Pedagogy:** Intensive teaching took place during fortnightly tutorials which linked on-campus and off-campus students via technology. Students were encouraged to read the lecture materials before they engaged in the tutorials. In addition, students were encouraged to post queries relating to course content to the tutors one week prior to the tutorial.
 4. **Equity:** Irrespective of their geographical location students were given the same resources and tutorial assistance, and were encouraged to work on topics related to personal and/or professional interests. This implied that students engaged in the unit in a flexible mode according to their learning style and work preference.

In what follows we elaborate on each of these four principles:

(1) Innovation and Integration of Technology in Pedagogic Design

A key principle guiding the design of EDN611 was how to make the technology work for us in delivering a high quality pedagogic experience to all students (on-campus and off-campus). Often innovation is taken to mean introduction of information and communication technologies into teaching and learning. Rarely is the discourse of innovation accompanied by mechanisms of identifying problems, generating creative solutions, and evaluating the success or failure in terms of pedagogic practice. In designing this unit we started by identifying problems with the existing offerings of the Unit and then we sought out possible solutions. Some of these problems lent themselves to technological solutions; other problems were solved by the design of pedagogic practices.

We spent a lot of time examining the nexus between conventional on-campus face to face pedagogy and the technology mediated off-campus pedagogy we were attempting to implement in the unit. Initially the consensus was perhaps that the on-campus experience was the optimum and the challenge was to graft as much of that type of experience as we could

onto the off-campus experience. As the development of the unit progressed there was a fundamental shift in that philosophy. The imperative started to become: *What type of pedagogy mediated by the technology best suited both on-campus and off-campus students given the conceptual difficulty of the material we were trying to teach and the threshold understandings of the students?*

Deliberation on this question first manifested itself in the decision not to simply video the on-campus lectures and stream these to the off-campus students. It was judged this would be detrimental to the formation of a learning community (Palloff & Pratt, 1999) across the unit as the off-campus students would experience a measure of disconnectedness. This decision proved a catalyst for us to examine if face- to- face lectures really added anything to the learning mix. The outcome was that traditional face- to- face lectures were replaced with a combination of on-line scaffolded asynchronous resources and a bounded mixed mode (on-campus, off-campus) synchronous experience. In what follows we elaborate on these technological innovations.

(a) Merging of Online and Face-to-Face Tutorials

The technological innovations in this unit were based on work commenced in the mid 1980s in a Graduate Diploma in Computer Education course. This course was primarily directed at teachers. The objectives were to retrain general or subject teachers as computer studies teachers and to introduce the application of computer technologies across the curriculum. The course was very successful and there was pressure to offer the course in external mode. However, delivery in external mode was print based and it soon became obvious that there was a mismatch between content type (technical, hands on) and this form of remote pedagogy. At about this time Telecom (now Telstra) released its electronic e-mail system, KEYLINK. A memorandum of understanding was reached with Telecom to make this system available to the students and lecturing staff. The concept was to provide more immediate and personalised help to students studying at a distance. It was only partially successful due to system instability, rudimentary telephone networks in country areas and STD costs associated with dialing into a city based mail server. This was a clear case of pedagogical design leading the ability of the technology to deliver.

The rapid growth of the Internet during the early 1990s prompted a second attempt to develop a pedagogy more suited to students studying at a distance. A web based on-line teaching system was developed. This system was database driven and had similar functionality to systems in popular use at present. It allowed for synchronous (chat room) and asynchronous (web board, e-mail lists) communications. It also allowed the structuring and delivery of

learning materials albeit mostly print based. The advent of this system heralded the “blurring” of the distinction between on-campus and off-campus students, as both had access to the system. In this instance the technology led the pedagogy which had been primed by previous exposure to the KEYLINK system.

(b) Web-Based Lectures: Power Point Presentations with Embedded Sound Files

By the end of the 1990s, PowerPoint presentations started to feature as a core component of on-campus teaching. It seemed a natural extension to make these available to off-campus students. Closer examination of the way in which PowerPoint presentations were used in teaching revealed deficiencies in this strategy. Most lecturers used PowerPoint presentations as prompts for monologue and sometimes dialogue with their students; at best they were used to summarize key points. Remove the verbal backdrop and the presentations were devalued as a component of a pedagogy tailored to off-campus students. Lack of effective audio compression, small bandwidth and lack of audio streaming technologies precluded packaging audio with the presentations for use across the internet. Once again pedagogical specifications lead the ability of the technology to deliver.

Over a period of several years different strategies were tried to overcome this hurdle. These included the development from scratch of presentations that were coded in Flash or developed as java applets. Both formats proved suitable and enabled students with relatively slow dial-up connections to access the material in an acceptable way. The problem with this approach was that a high level of technical expertise was required to produce the presentations. The strategy also did not tap into the existing resource of already prepared PowerPoint presentations available for most on campus units. This limitation has recently been overcome by the release of some commercial products that will convert PowerPoint presentations with embedded or linked audio directly into flash movies or java applets. This process was trialled extensively in the unit and with some reservations was found satisfactory. Once again the technology lagged the pedagogical specification for some time.

The website was central to the study of the unit and access was required by all students. All lecture notes, information about the unit, teaching materials and assessment items were obtained from the website and equally accessible to on- and off-campus students. Likewise the website provided students with mechanisms to interact with each other and teaching staff in a variety of asynchronous and synchronous means. The next section discusses the structure of the website in detail.

Scaffolding Learning via Website Organisation

In designing a website that satisfied the needs of the unit in terms of content, procedures and pedagogy, we were conscious of the need to carefully structure the information to facilitate its accessibility by the students. We realised that many students in the unit might not have had previous experience navigating the Internet. Hence, its content had to be well structured with careful instructions on how to use it. We adopted what might be called a *functional* approach to the design. We identified three major tasks that the website had to provide: it had to allow for presentation of the content of the unit; carry out its administrative functions; and allow for communication between students and lecturers. The following diagram illustrates the structure that emerged and a brief list of the content of each section.

Functional Structuring of EDN611 Website		
Information Centre	Unit Administration and Communication	Unit Content and Resources
<p>Includes</p> <ul style="list-style-type: none"> • Unit outline • Pedagogical processes in the unit • Assessment and criteria • Semester Master Plan • How to use the website • Official forms • Faculty policies • Lecturers in the unit • Useful contacts 	<p>Whole Unit Level</p> <ul style="list-style-type: none"> • Email whole class • Participate in on-line Tutorials <p>Class Group Level</p> <ul style="list-style-type: none"> • Email class group • Asynchronous forums for asking questions and sharing of resources. <p>Small Study Group Level</p> <ul style="list-style-type: none"> • Email study group • Chatroom • Asynchronous forum for student: introductions, planning assignments and sharing resources 	<p>Week by week</p> <ul style="list-style-type: none"> • Lecture Notes (Visual (PowerPoint slides) + Audio (embedded sound files)) • Additional readings and relevant websites • Activities including references to textbook, reflection and discussion exercises • Hints about assessment • Information literacy and academic writing activities

Secondly, in designing the website we took into consideration concerns of efficiency. While we can assume that the vast majority of students have some access to the Internet in their workplace or at home, the speed and the cost of such access varied between students. We were aware of the excessive demand on storage and download speed of streaming the whole videotaped lectures. Instead we considered the use of PowerPoint presentations with voice as an alternative to provide short lecture notes introducing the main concepts dealt with weekly. Once again, due to the excessive size of PowerPoint files with embedded audiofiles, as well

as possible problems with compatibility, these had to be converted to Flash presentations that could be viewed at most standard web browsers.

Similarly, we copied the whole website onto a CD that we made available at no cost to ease the burden and cost on students who preferred to study the material off-line. The Faculty of Education also has a policy to supply the whole course in print format for students who make such requests. Naturally, certain functions in the website, such as participation in the tutorials and communication with students and staff, were not possible without Internet access.

Pedagogic Relations

The consideration of the pedagogical aspects of this Unit took central concern in its design. Rather than being technology driven, we always started by looking at what we aimed to achieve, and then asked how technology could assist in achieving it. There were four pedagogical principles that we attempted to achieve: (a) increased autonomy for learners; (b) the creation of a community of learners; (c) supportive teaching and learning environment; and (d) ensuring that students were inducted into the disciplinary foundations of educational research knowledge.

First, we sought pedagogical practices that provided students with multiple pathways for accessing and acquiring the instructional content of the unit. For example, the unit material included: lecture notes, supplementary materials, hyperlinks, and reflective study activities on the website. Our objective here was to provide students with guided learning pathways. Indeed, many students indicated that they enjoyed the online PowerPoint lecture presentations because they could replay the material if they were having difficulty understanding concepts. In other words, students had greater control over the pacing of knowledge – replaying lecture notes when they did not understand material, emailing tutors for assistance and so forth.

Second, through the formation of Small Groups and the use of synchronous and asynchronous communication tools, we provided students with the opportunity to share their questions and concerns with each other. These opportunities resided at two different locations on the website. The communication facilities in the Class Group Area were monitored regularly by the lecturers who responded to students' questions and comments in an open manner for the benefit of the whole class. On the other hand, the communication mechanisms in the Small Study Group areas were not regularly monitored and intended for students discussing their concerns among themselves. The development of the community of learners was also enabled through the use of a combination of individual and group assessment tasks. In this Unit, the

students had a chance to collaborate in Small Study Groups on two occasions on group-developed tasks which totalled 30% of the assessment load.

Third, we provided explicit scaffolding of student learning. Prior experience in teaching this unit had alerted us to the fact that students enrolled in Masters' level courses in education generally have very limited experience in research subjects. The bi-weekly tutorials were designed primarily to provide students with the opportunity to deal with certain difficult aspects of the Unit in depth. Students were also encouraged to email tutors and peers in their small groups for assistance with learning materials. In addition, students were provided with assistance in navigating and using web-based materials (online guides). Student learning was also scaffolded by professional staff from the Library (Helen Hobbs) and the 'Teaching and Learning Support Services' department (Meredith Godat) of the university. Library staff provided invaluable assistance to students in accessing and navigating data-bases to locate appropriate resources. Staff from the Teaching and Learning Support Services Department assisted with the layout design of the website.

Fourth, in developing this Unit the depth and spread of the disciplinary knowledge required by the diverse student cohort was fore-grounded in our deliberations. The content of the unit covered a range of theoretical and methodological topics necessary for critical engagement with published research. The content and the supporting materials reflected current debates in educational research. We took care not to allow new pedagogic innovations to impinge on the rigorous development of disciplinary knowledge. In addition, we ensured that students acquired such technical skills as information literacy and academic writing through engagement with the unit materials.

Equity Principle

Undoubtedly, offering units in external mode increases access to university study for many students who otherwise might not have been able to participate. Likewise, it makes university study easier for students whose circumstances, i.e. work or family commitments, may hinder their attendance on campus. Flexibility in modes of offering also caters for different learning styles of students. However, in designing this unit, we were cognizant of the fact that many students who opt for external studies may have preference for learning experiences that are based on face-to-face and weekly structured interactions with their lecturers and other students in class. Hence, what may appear to be a "choice" of modes may not be a fair and free choice.

Technology provided us with the capacity to increase the provision of powerful alternatives for students to participate in classes from a distance. Further, it provided for their virtual participation in real-time along with students on-campus. In this unit, this was accomplished by holding bi-weekly tutorials simultaneously on- and off-campus. Off-campus students were able to connect through a chat room on the website, hear and see the physical classroom procedures. Further, they could participate in the discussion by typing in their comments and questions. The chatroom interactions were projected onto a screen in the on-campus classroom and consequently allowed on-campus students to interact with off-campus students. Furthermore, just as in face-to-face classroom contexts, off-campus students could break into small tutorial rooms to engage in an activity in-depth and return to the main chatroom for reporting at the same time as the on-campus students.

All students in the unit had the same access to the website that contained all the lecture notes, resources and activities that were necessary to complete the unit, thus there was no difference in the pedagogical experiences of the cohort of students (those who could attend face-to-face tutorials and those who could only attend on-line tutorials).

DISCUSSION

We started this paper with a discussion of the Janus-faced pedagogic position that all academic workers are now expected to manage. One face of pedagogy, we suggested, now points outwards to the external demands of the profession, state regulatory frameworks and market contingencies. The other face of pedagogy points inwards to the introspective demands of disciplinary knowledge (the intrinsic worth of specialized fields of knowledge) and the therapeutic demands of personal development or growth. In this paper, our stance was not to bemoan or celebrate this new Janus-faced pedagogy or the state discourses which projected this pedagogic identity onto all academic workers. Rather, we argued that this new pedagogic position was characteristic of wider global changes affecting all higher education systems. Moreover, we suggested that current changes, particularly in terms of the design of teaching and learning in the university sector, were part of a wider/global project of conservative modernism.

However, state educational policies are not simply or automatically translated onto higher education pedagogic practices. Rather, these policies are selectively taken up or recontextualized by agents working within the pedagogic recontextualizing field. In particular, we were concerned with the ways in which state educational discourses projecting new forms of pedagogic identity might be taken up in the design of new pedagogic practices. Drawing on the theoretical work of Basil Bernstein (2000) we examined four types of

pedagogic identities: de-centred market, therapeutic, disciplinary and professional. In the final section of the paper we described the four principles guiding the design of an educational research unit: technological innovation, disciplinary rigour, scaffolding of student learning and equity issues. Evident in each of these principles were elements of the above-mentioned four pedagogic identities. For example, the principle of technological innovation was part of the discourse of the de-centred market identity. Technological innovations were deployed to design a unit that could reach students who could not attend on-campus classes, as well as ensure that the principles of curriculum content were clearly explicated and performance outcomes clearly delineated. In addition, while students exercised little control over the selection and organization of curriculum content, they did exert some control over the pace in which in they progressed through the materials. Students could review PowerPoint lecture notes several times until they gained full mastery of learning. In addition, the therapeutic discourse was evident in the design of group work assessments and individual assignments which encouraged students to explore their own personal and professional research interests. Moreover, the disciplinary discourse was evident in the emphasis on scaffolding student learning from easy to more difficult concepts associated with educational research. The unit also served as a prerequisite to an advanced level unit on educational research. Finally, the professional discourse was evident in the applications of educational research to the work of practitioners.

The unit EDN611 is a work in progress. This paper is our first attempt to theorise some of the pedagogic principles underpinning the design of the unit, as well as link these principles to macro state policies. We can clearly state that this work in progress went some way in achieving our objectives: rigorous in disciplinary knowledge, technologically innovative, cost efficient; and responsive to diverse student needs and market contingencies.

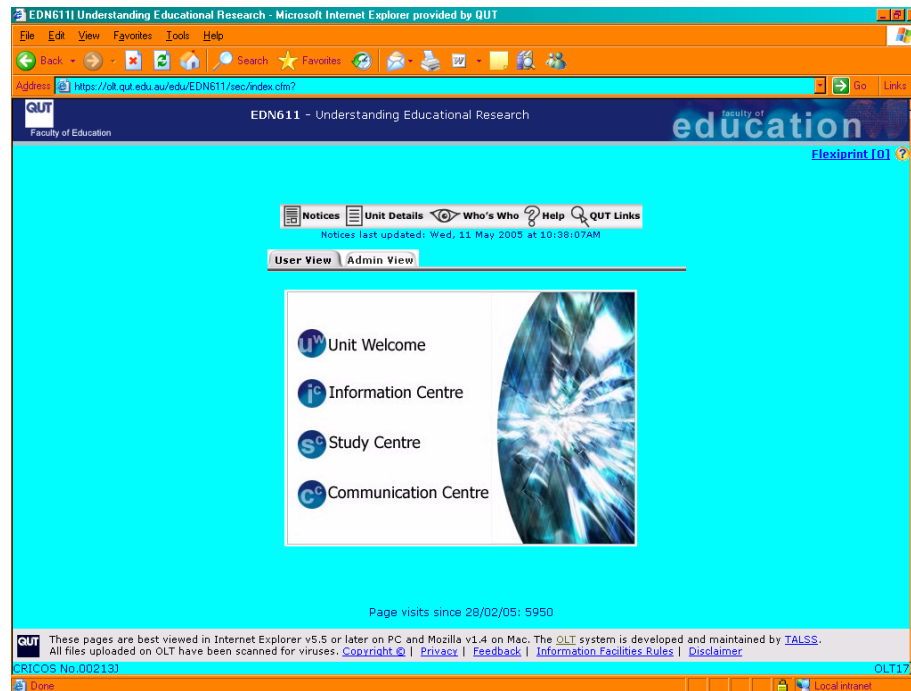
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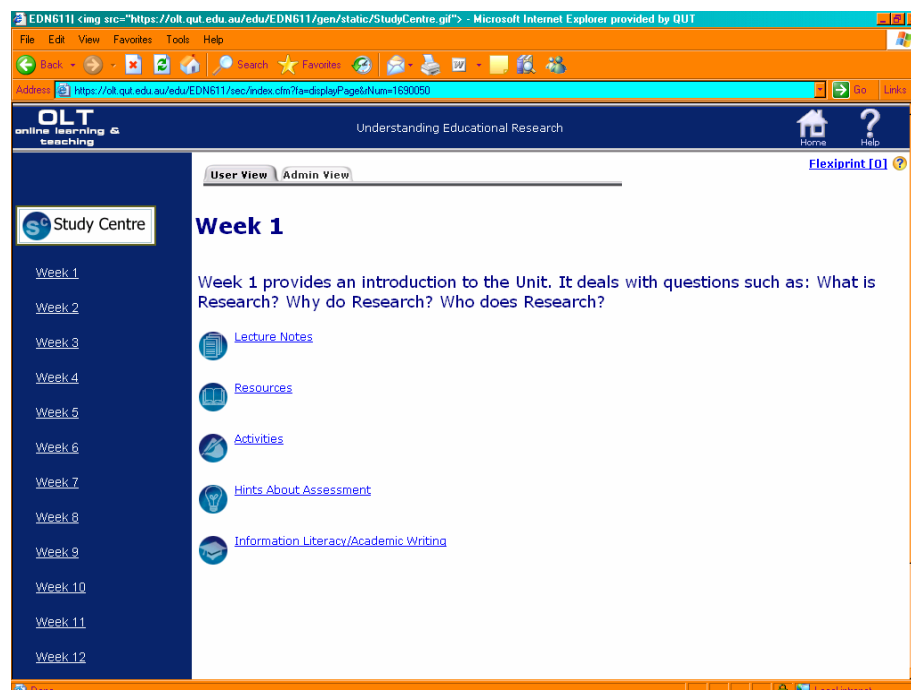
APPENDIX

Main Features of EDN611 OLT homepage

1. **Functional Structure** of Material and Information: Students can navigate easily between administration material, resources and content of the unit, and tools for communication between themselves and with the teaching staff in the unit.



2. **Weekly Material** consists of lecture notes, resources, activities, hints about assessment and information literacy. The weekly material is designed in a way that students can go at their own pace in their study of the content and completing the assignments.



3. **Lecture Notes** consist of PowerPoint presentations with embedded voice. This is much more efficient than video streaming of lectures. To increase the efficiency further they have been condensed as flash presentations to operate on any standard web browser software.

4. **Tutorials** are held simultaneously on-line and face-to-face allowing distant students and on campus students exactly the same opportunity to study the unit in a flexible mode.

