

## **Changing teachers: Syllabuses, subjects and selves**

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How teachers respond to a new syllabus, what they say and do within the challenging landscape of educational reform and curriculum implementation in the contemporary postmodern world attracts considerable research interest from scholars. The analysis of teachers' perceptions and actions presented here is set within the context of significant change to the secondary curriculum in New South Wales. We report a cross case study that draws on three separate investigations about how secondary school teachers of English, History and Mathematics respond to significant change in their respective syllabuses. The process of teacher change is complex and challenging. Teachers' beliefs about their subject and their pedagogy, and their access to customised professional development programs are strong influences on their responsiveness and adaptation to change. The possibilities for reform in practice are enhanced when teachers understand and value the nature of the curriculum changes, have the time and resources to adapt their classroom strategies, and they feel supported through the implementation phase.

### **Introduction**

Reform in school curriculum, in particular, the nature of syllabus documents is frequently contentious and involves a range of perspectives as to how best to achieve change in subject content and teaching practices. This is evidenced in ongoing debates surrounding the requirements of post-compulsory schooling in New South Wales and the contested nature of the curriculum inclusions for secondary students. A significant consequence of these educational questions has been a major review of the curriculum in both the Year 10 School Certificate and the Year 12 Higher School Certificate (HSC). The current high participation rates in post-compulsory schooling are the result of recent State and Federal government policies, rapid global technological change, and an increasing shift towards a knowledge-based economy. Parents, teachers, students, employers, universities, and governments all have a vested interest in ensuring that education and any subsequent training for work are appropriate for the post-industrial world. The diverse views of so many stakeholders create tensions about what and how students learn, and how educational achievement is measured. Mandated syllabus documents provide information about these issues and can influence students' learning and teachers' subject based pedagogical approaches.

### **Curriculum reform context**

The NSW Office of the Board of Studies is the central agency responsible for the development of all subject syllabus documents and the related assessment measures. Teachers' participation in curriculum reform is sometimes disputed in the literature and certainly remains a point of contention with many teachers (Kirk & Macdonald, 2001). The syllabus documents that are produced embed knowledge, skills, attitudes and values into their learning outcomes and make assumptions about instructional strategies.

Teachers are not told explicitly how to teach and implementation decisions largely reside with them. When new syllabuses are developed, the responsibility for professional development programs is with the various employing bodies such as Department of Education and Training, the Catholic Education Office and the Association of Independent Schools. Board officers assist through consultation and provide support documents with the new syllabuses. Professional subject associations also make a significant contribution to the guidance of teachers, particularly in assisting with curriculum change.

The inherent character of curriculum can itself be problematic in determining the meanings that are attributed to any change. Its map contains many dimensions and contours. As Luke (in Lee, 1996, p. xii) explains, "curriculum is always multidiscursive and heteroglossic". Contestation over the curriculum has significant ramifications for society, with educational stakeholders vying to present hegemonic and homogenous text about the world. Curriculum developed outside the classroom and imposed upon it, represents a world view that students and teachers may not be able to see, and may be ideologically deficient, lack discipline specific content and be unappealing. The mediation of curriculum by teachers takes place within a local context and the transformation of syllabus intention that occurs is influenced by a number of variables. In their practice teachers realise different potentials for curriculum enactment. Weiner (1994, p. 66) points out that "any analysis of the impact of curriculum policy needs to consider its interpretation as well as its intentions or impact." What teachers themselves tell us about their views and understandings of curriculum reform is important as their discourses reveal "the ways they construct their own change meaning as they go about reform" (Fullan, 1999, p. 67).

The English Stage 6 syllabus (Board of Studies NSW, 1999a), introduced for Year 11 study in 2000, represents a significant change in direction in Higher School Certificate English. The Stage 6 syllabus was written against the changing literary and theoretical climate of the late twentieth century, and reflects these newer perspectives in its content, terminology, and text prescriptions. The traditional model of English, which had a heavy reliance on a cultural heritage perspective and which privileged canonical texts over other works, has been reinvigorated and reshaped by the broader inclusions of the new Stage 6 syllabus. Previous notions of the transcendent power of a literary text or of its capacity to retain a fixed, unalterable meaning on the page have been overturned by a curriculum directive to view and value texts as productions of both contextual and cultural factors. The conception of English has been rewritten to embrace the new century and to cater to a wider range of students' needs through the inclusion of popular culture and media texts, information communication technologies, and broader theoretical, contextual and pedagogical approaches.

In contrast, while the content of the Mathematics 7-10 syllabus was unchanged, a significant new feature is the notion of "Working Mathematically". This is an approach to teaching Mathematics based on collaborative problem solving, which allows for a variety of solution strategies, and draws on a wide range of mathematical concepts and skills. 'Working Mathematically' is described as providing "opportunities for students to engage in genuine mathematical activity and to develop the skills to become flexible and creative

users of Mathematics" (Board of Studies NSW, 2002, p.45). As such, teachers are required to adopt a more flexible approach to students' learning and allow time to enrich classroom activities where appropriate.

Similarly, Senior Modern and Ancient History Syllabuses have been re-conceptualised to align with educational policy shifts and diverse philosophical and pedagogical beliefs about the nature and practice of teaching History. The curricula enshrine Active History pedagogy. Active History is defined as student-focused, conceptual and modelled on the work of historians, it incorporates a use of sources, archaeological evidence and close study of a significant event, group or historical. Active history has resolutely replaced the traditional approach and condemned traditional proponents as obsolete; resulting in divided teacher philosophical beliefs. Consequently the fabric of teaching History has been re-worked to emphasize active historical practices which challenge teachers to develop new directions in History teaching. These new syllabuses in Ancient (Board of Studies NSW, 1999b), Modern (Board of Studies NSW, 1999d) and Extension History (Board of Studies NSW, 1999c) require higher levels of literacy, more academic rigour, active historical pedagogy and a deeper understanding of case or patch study approaches.

## **Method**

The three case studies reported in this paper were developed separately by each author within a qualitative framework. In the first instance, the authors independently designed surveys and distributed them to a random sample of teachers throughout NSW from their subject area. Purposive sampling techniques were used to select a representative group for each subject area from those teachers who responded to the surveys. A total of seventy-two respondents across the three subject areas and representing a range of schools from both the government and non-government systems in metropolitan and non metropolitan locations in NSW then participated in semi-structured interviews. The participants included a mix of Head Teachers and classroom teachers who had a vast accumulation of teaching experience between them; most were experienced teachers who had taught in a number of schools during their careers.

The teachers were asked about the strategies they were using to implement their new syllabus (Stage 6 for English and History; Stages 4 and 5 for Mathematics) and to give some examples of how they thought they had changed their teaching practices to meet the new syllabus requirements. We were particularly interested in their discursive constructions because discourses present layered expressions of partial and constructed meaning which convey unique ways of being and acting, and which reveal particular perceptions and realities. Each case study was framed by an understanding that discourses always communicate more than a literal message (Gee, 1996). The teachers' interview responses positioned these individuals in distinctive ways and their discourses revealed their various ideas, versions and meanings about themselves as classroom practitioners and their views of what constitutes a change in practice. The theoretical perspectives of grounded theory (Strauss & Corbin, 1990) and discourse analysis (Gee, 1999) informed the analysis of the data. Through these perspectives, the multiple views and voices

produced within the teachers' discourses and the various positions they adopted as speakers could be analysed to better understand how curriculum changes influence teachers' practices.

The use of case studies is an effective means of evaluating the outcomes of a research project because they help to highlight the key issues which enable or inhibit success (Yin, 1984). However, case studies with a very specific focus can sometimes lack a broader view and disregard comparisons by which outcomes of multiple programs sharing common objectives can be contrasted. Instead, Eisenhart (1989) suggests a cross-case analysis of data to "improve the likelihood of accurate and reliable theory, that is, a theory with a close fit with the data" (p. 541). The use of a cross-case framework therefore affords researchers opportunities to look for patterns and themes in the data that are common across a variety of contexts and settings, to consider variation in important outcomes, and to focus on the factors which have contributed to the differences. Patterns emerging in one data set which are corroborated by evidence from another source add weight to the findings and make them stronger.

The results and discussion presented here are compiled from a cross-case analysis of the individual interview responses of all of the teachers from the three subject domains. Clusters of ideas are used to develop emergent themes (Miles & Huberman, 1994) to convey the particular features and details that have been drawn from teachers' discourses, imagery and reflections on the nature of their pedagogical approaches during times of major curriculum reform. In the case of English teachers, close examination of a unit of work that they had prepared for teaching a particular syllabus Elective provided further insight into the approaches that the teachers adopted in their classrooms.

These teachers had no contact with each other, and were from a selection of locations and school systems throughout NSW, and yet there is extraordinary consistency across the three subject domains in their ways of thinking about and representing themselves as teaching professionals. The remarkably similar responses both within and across the three case studies make them particularly relevant and worthy of consideration.

The following discussion presents the teachers' discourses and responses to their new syllabuses; their actions and implementation of the new curriculum reforms; and the teachers' need for support and professional development during times of major change. Patterns of imagery and discursive connections are used to highlight the key themes in each of these three focus areas.

### **Teachers' discourses about their new syllabuses**

The teachers' personal responses to their new syllabuses ranged from passionate enthusiasm to pragmatic acceptance to antipathy and strong resistance. Most revealing of the findings are the images the teachers use to express their personal views about the reforms in their subjects. Three patterns of imagery can be identified across the responses of the English, History and Mathematics teachers. In the first collection the teachers'

images evoke confusion and disorientation, a loss of personal and professional control. They also use metaphors that are associated with darkness and blindness and which suggest a lack of clarity about what they are doing. A third group of metaphors relates to directional imagery and emphasises the teachers' need for direction and to know where they are heading as they implement the changes.

### **Images of a loss of control**

There are some resonances heard in the teachers' voices that suggest disquiet and uncertainty. Although there were numerous professions of approval made for the new syllabuses, in fact there appeared to be more negative features actually identified. Expressed in the teachers' judgments are images and words related to a loss of control that reveal personal feelings of disempowerment and their uncertainty about their professional practice. This group relates directly to the following collections which concern a lack of vision about the changes and about the need for direction through the processes of curriculum reform.

There was a good deal of cynicism about the reform processes and many teachers expressed frustration about the significant extra demands placed on them at work. They felt that the time they would be allocating to lesson preparation and professional development was being "swallowed up" by competing demands of administrative matters and other paperwork. Mitch, a History teacher, suggested that curriculum change "contributed to a lot of tension and stress. Some of the people I work with were flat out, other things got passed over and people got sick". Teachers often began their interview responses with a wry smile as they claimed, "I don't want to be too cynical, but ..." and then recounted previous reforms which had come and gone without leaving much trace. One Mathematics teacher commented ironically, "If you always keep doing the same thing, sooner or later you will be an innovator".

Warren's image reflects his feelings of a lack of professional control, "I was a puppet on the end of a string really." English teacher Tom explained the sense of confusion, "we don't know the rules and it's sort of...the guru's passing out his or her new vision of what's going to happen, we're all rushing to interpret, we're all rushing to decide what we're going to...or how we're going to do this." Joseph used the word "fear" to describe his feelings: "I'm in fear, without ever having taught the Course before and nobody has ...." Victoria lamented "History teaching has lost some of its joy and wonder as a result of the prescribed curriculum that mandates a narrow range of content and the scope of the subject". Highlighting her own personal loss of control, she revealed that she now had to "speak faster to cover the content".

By implication the teachers appear unable to order their practice – in the ways in which they have done in the past. Not being in charge or controlling the process is a significant factor here. The images suggest they are at the power of some other force - struggling on "a string" in "fear", and "rushing" around without the comfort of the certainty of their established knowledge. Many of the expressions are couched as negative constructions and the nature of the actions conveyed through the verbs like "rushing" further suggests

an absence of control. There is a strong cumulative effect created of disempowerment and negativity. The teachers feel they lack the authority and purpose that typically shapes their work.

### **Images of darkness**

When asked about their views on the new syllabuses the teachers described their anxieties through metaphors associated with darkness and blindness. These suggested an absence of clarity about what they were doing. Images of floundering, drowning, and being in the dark were connected to issues about the quality and frequency of the NSW Board of Studies' support, the amount and appropriateness of professional training and the release time and the provision of locally based support.

Louise, an experienced English teacher, spoke for many others, "we're floundering in the dark." Alexa, a new graduate, echoed the same metaphor: "I think that a lot of people feel that ...they're going into the dark, they don't really know what's expected." Teachers showed high levels of anxiety about the content and assessment of their subjects and, as History teacher Jill commented, felt they were "drowning in the dark". This mixed metaphorical allusion to drowning and darkness indicates a sense of despair, disorientation and disconnection. Dave reiterates this in his description of the profession as "feeling hopeless because we were floundering as teachers".

In these examples, the ways in which the teachers expressed their views signal their irresolution and uncertainty about the new syllabuses and even though most are experienced practitioners, the change processes have brought about a loss of confidence for them. For example, the Mathematics teachers who had been schooled in a very teacher-centred style designed to ensure a quiet classroom where students were kept in their place and required to complete drill and practice exercises from their textbooks, saw their lack of clarity about the intellectual content of the lesson as a personal failing. As one teacher remarked, in "traditional Mathematics, we've always got an answer in the back of the book, but when you start setting open-ended tasks, you don't know where they're going to go. Students might ask you some tough questions". Neville, an English Head Teacher, believed, "there's been a lot of feeling your way in the dark" and he further suggested, "you are in a blind alley". In spite of their considerable teaching experience, many of the teachers seemed to lack certainty and vision about achieving the desired outcomes, particularly for their students. The use of metaphors related to blindness and the presence of darkness imply their disoriented feelings and evoke personal and professional inadequacy.

### **Images of direction**

Another group of metaphors identified relate to directional imagery; the teachers' need for direction and need to know where they were heading. This response was presented through their words specifically connected to paths and roads, or implied through the suggested absence of ways to follow. These metaphors and images relate directly to the

previous group, implying that not only was there an absence of seeing the way to go but also of knowing how to get there.

Louise said that although she had collected all her resources, she saw herself as "a little bit swimming upstream at different times trying to find out just where to go..." Virginia, an English teacher, reassured herself during the interview that "I think we're on the right track." From his perspective, Warren believed, "there's no real guideline for me." Another teacher commented, it was "a hard road to hoe."

Also illuminated in the teachers' discourses were the tumultuous, sometimes joyful and frequently difficult and exhausting journeys that teachers embark on when dealing with significant curricula change. Some Mathematics teachers used the metaphor of a "journey" to represent the professional explorations they had been undertaking for some years and, while they regarded their new syllabus as an affirmation of what they were already doing, they were pleased to see they were "on the right path" or "heading in the right direction".

The unifying link in the given examples is the notion that something is happening as the images indicate that the teachers are taking some form of action. This group, in contrast to the first collection, is not just about feelings. The presence of the directional metaphors suggests movement in the implementation of change process. A journey is being undertaken even though some of the teachers have only a qualified certainty about the outcomes of the changes and feel hesitant about their own likelihood of success.

## **Teachers' actions and their implementation of new curriculum**

The teachers' reports of their pedagogical practices in response to the new syllabuses reflect many of the everyday realities of the teaching profession. On a pragmatic level, there were many who raised concerns about how time constraints and increased workloads had restricted opportunities for them to familiarise themselves with the syllabus changes and enact them in the classroom. For some, implementation was quite superficial and they did not appear to have come to terms with the deeper elements of the proposed changes. For others, no significant pedagogical shift had occurred, despite their range of attempts to make it happen.

### **Pragmatic tensions**

Many teachers across the three disciplines we investigated reported that they were tired, busy, and stressed—so much so that they found it difficult to engage meaningfully with the new syllabus documents. Some teachers expressed frustration at the extra demands placed on them by the introduction of the changes which led to their lack of commitment to the reforms. Some even began to resent curriculum planners, whom they regarded as ideologues, too far removed from the daily work of the classroom. As such, the syllabus changes entrenched their suspicions and became a barrier to change which served only to diminish their opportunities for critical reflection or envisaging new ways of teaching. As one History teacher, Michael, explained, "The workload has increased. You can't use the constructivist teaching model which is what I really like to teach with this type of course".

Since the introduction of a new syllabus invariably brings with it a new assessment regime and the need to constantly prepare new lesson materials, the teachers were highly receptive to whatever appeared to offer guidance or provide a practical solution to alleviate some of their stress and confusion. Their discourses reveal the ways they put in place an appearance of change through working hard, gathering resources (especially print material), talking with colleagues, and going to workshops to obtain handouts. In this way they felt they could justifiably claim adherence to the new syllabus requirements when, in fact, little had actually changed in their classroom practice.

Increases in workload were sometimes associated with changes in teachers' confidence and self-efficacy which resulted in a lack of motivation to engage with their particular syllabus and to experiment with new pedagogical practices. As a result, teachers cried out for assurance and guidance in teaching the new demands and despite seeing themselves as the most valuable resource in the classroom, the main focus of their activity was to find ready-to-teach resources and new assessment tasks developed by others.

### **Operating on the surface**

Much of what the teachers identified in their discourses about their implementation of the new syllabus seemed to be at a surface level. Denise, an English teacher offered a metaphor that seems particularly apt: "we're just skating along the surface." There were indications that some teachers acknowledged the mandated components of their syllabus but their extended discourses generally did not reveal any deeper engagement with the complex processes of change or that the teachers were making a significant pedagogical shift. It appeared that much of the change and implementation process remained external to these teachers and they did not engage with many of the underlying issues of a new syllabus. Instead, the deeper aspects of intellectual interpretation and critical exploration were masked by concerns about acquiring materials and they neglected to critique their syllabus or challenge and reflect on their own pedagogical practices.

What the teachers identified as changes and their perceptions of change, were not necessarily what a new syllabus itself seemed to be endorsing as significant notions of change. It is what was omitted or not said—the gaps in the teachers' discourses—that provided insight into the impact of the processes of change on their teaching practices. At times, there was a difference between what the teachers said they perceived as changes in their practices and what in fact occurred. Generally the teachers were complying with the main prescriptions of the syllabus by including its particular and prescribed content into their teaching. For instance, English teachers could name the prescribed texts they were teaching, History teachers were able to describe how the content was new or different, and Mathematics teachers spoke favourably about "Working Mathematically", but there was not a significant indication of how this material was being taught in ways that reflected the wider theoretical shifts within each subject. Mandatory syllabus content was included and assessment prescriptions were being addressed, but the main driving force for most teachers was the prospect of their students completing the HSC examination at the end of their course of study.

Therefore, it does not seem that many of the participants have yet internalised their own understandings of the curriculum changes; they see them as external features to be observed and addressed in their well-established practices. For most, there is little evidence that the new syllabus principles have been integrated into their work in any intrinsic manner or that they are spoken about with the same passion that the teachers demonstrate when describing their views of themselves as teachers, their subject and their own pedagogical beliefs.

### **Teachers' actions in the implementation of new syllabuses**

Although implementing syllabus documents is central to teachers' work, many teachers regarded the curriculum changes as making additional demands of them and were therefore reluctant to engage in any meaningful way with them. In the teachers' implementation across all three disciplines, there was very little evidence of teaching strategies that reflected the conceptual frames suggested by the new syllabuses. English teachers, for example, declared that their practices had changed yet continued to approach the study of Bruce Dawe's poems in much the same ways as before, except that they adopted an additional thematic identification taken directly from the syllabus; History teachers appeared largely resistant to new concepts or teaching practices; and Mathematics teachers simply redefined the central notion of Working Mathematically from the syllabus so that it more closely matched what they were already doing in the classroom.

Teachers expected time to adjust to a new syllabus, a moderately paced implementation, and significant relief from other teaching duties while they accommodated the changes. However, many teachers' expectations were not fully met by the educational agencies that controlled the roll-out of the new curriculum. According to the teachers, the introduction of major reforms without significant time to develop programs and resources, no extended period of time to think about assessment standards and reporting methods, nor opportunities for school-based discussion of implementation strategies, was fruitless. As a result, many remained unconvinced of the benefits of the changes and made little progress in implementing them.

Even when teachers did include new pieces of content this did not necessarily indicate that any significant pedagogical change or deeper intellectual engagement with the syllabus paradigms had occurred. They generally opted for commercially available resources prepared by others and the effectiveness of the teachers' change implementation was somewhat diminished because there seemed to be no emotional or intellectual connection with the materials they were using. So, in spite of their stated confidence about their classroom practice and how well it mirrored the demands of their respective syllabuses, it appeared that many teachers simply followed, rather too slavishly, anything that was offered to them as a model.

Those teachers who did introduce different classroom practices aligned to their new syllabus were sometimes met with resistance from students who were unaccustomed to

engaging with content in these ways. Teachers too often felt unprepared for their shifting roles and struggled to develop classroom tasks which struck the right balance between teacher and student activity. So, when their initial attempts proved less than successful, some teachers quickly reverted to old methods that they felt had served them and their students well in the past. They then became more convinced that the new directions proposed by the syllabus changes were neither possible nor desirable.

### **Teachers' need for professional support during curricula reform**

Although the teachers asserted confidence about their subject paradigms and their professional roles, they cried out for assurance and guidance in teaching the new syllabus. They perceived themselves as the most valuable resource in the classroom yet much of their rather frenzied activity was to find resources created by others. The consensus amongst our teachers was that professional support and development were essential factors to assist them in their implementation of such major reforms. This is not surprising. They were very clear in their views about what constituted suitable and effective professional development for the management of change and they made strong criticism of the nature of the generalised program they received from the NSW Department of Education and Training. Highlighted for praise were the credible leadership and collegiality provided by their own subject departmental groups, and the customised support presented by the Professional Subject Associations.

### **The role of standardised programs**

The topic of professional development generated animated responses from the teachers and specifically, about the large-scale program conducted by the NSW Department of Education and Training. A homogenous, standardized model of training was evident in the Local Interest Group (LIG) program devised for a range of subjects on a cross-sectoral basis. These sessions were conducted regionally throughout the state using mechanical language and generic materials. Many of the participants in LIG sessions were critical of the training approaches used and the ways in which the facilitators, who showed limited knowledge of the changes themselves, conducted the sessions. The train-the-trainer model, is acknowledged in the literature (see, Butler, 1996; Naylor & Bull, 2000; Sayre, 2002) as unlikely to promote the effective delivery of professional development to bring about long term changes in beliefs and actions. One teacher, Joseph, claimed his presenter was "full of Department policy and didn't really have any solutions to any of the problems that were there". The failure to critically trial and evaluate the changes in a classroom context destroyed the credibility of the trainers and the efficacy of the training curricula. Many claimed "it wasn't particularly useful".

The materials were described as lacking professional and contextual understanding and delivered by individuals who had stood on the assembly line and not in the design room. An English head teacher, Keith, believed the facilitators, "were having to espouse or articulate practices and policies and ideas and beliefs that were in some cases ultimately unsupportable." Because the training packages were not customized to satisfy the needs of diverse professional cultures they instead, produced synthetic versions of the new

syllabuses that were circulated and competed among the other versions that were shaped in other locations and by other voices. This served to heighten the confusion of many teachers and to destabilise their confidence even further.

The teachers preferred authentic and credible leadership "by somebody who's actually done it themselves talking about it and showing you", providing learning experiences for the participants that were "hands-on and practical", and for example, by focusing on small and achievable goals that would help teachers "get a sense of Working Mathematically and talk about the pitfalls". Professional development that is heavily reliant on instrumentalism, standardization and artificial replication does not capture the distinctive nature of a subject or challenge any of the deeply held paradigms of its practitioners. Additionally, the *one size fits all* homogenous approach of the LIG program was limited by the credibility of the facilitators and its failure to account for the professional context and identity of teachers.

### **The role of the subject department**

The teachers saw great value in exchanging ideas and resources with work colleagues as a means of stimulating professional dialogue and promoting support within their faculty. Vera, a Mathematics head teacher commented that "the best way to get people doing anything differently is not by putting it in the program, but by actually talking about it amongst staff in an informal basis—we can get quite robust discussion at recess". Similarly, History teachers reported that they sought to engage in shared dialogue about their practices and curriculum change with their colleagues. Some teachers across our studies remarked that there was increased collaboration within their subject department.

However, while these informal, school-based discussions were useful in the early stages, there was also a sense that their value was limited and that a more systematic approach to professional development was required. It was observed that the practices established were really driven by "a spirit of desperation" and as another teacher said, basically "survival stuff". One Mathematics head teacher noted that staff in his school had "gone about as far as we can take it (discussing the syllabus), we're stretching our imagination and our ideas, and using all the resources that are available to us" and that what they needed now was "to see some concrete modeling of how to do it". Mathematics teachers acknowledged that simply reading the syllabus or the support materials was not sufficient to bring about a different approach in the classroom because "if you haven't done it before and you just read an article then it tends to fall flat".

### **The role of professional subject associations**

Teachers perceived the professional subject associations as understanding their specific needs and providing opportunities to share suitable resources and professional dialogue. The NSW English Teachers', NSW History Teachers' and NSW Mathematics Teachers' Associations exerted a strong influence over a majority of the participants who acknowledged their work as making a positive contribution to their preparation for the new syllabi. Jill, a History teacher, identified the importance of these Associations in "we

actually get a reasonable amount of support through HTA, it may not necessarily be localised but certainly HTA is very active in supporting us with the magazine and the conferences". Warren, an English teacher found his workshops helpful "to be able to discuss ideas through ... (and) ... teaching strategies."

Professional Associations, lead by subject-specific practitioners, aligned with professional cultures, were seen to understand classroom realities and to be accessible and prepared to act strategically. These agencies mobilized to provide both the credible leadership and the resources that were demanded by teachers faced with new curriculum challenges. They allowed opportunities, according to one Mathematics teacher, for "just getting together and talking to a lot of people." Professional Associations appeared well positioned as vanguards within the subject disciplines to interpret the discourses of curriculum change and provide practical support.

Curriculum change led by teachers and their representative agencies that is well resourced in a systematic and continuous way and recognises teachers' voices and their specific subject needs could decrease the risk of curriculum resistance, failure or subversion and produce successful innovation.

### **Discussion: Syllabuses, subjects and selves**

The three research studies reported here are based on the perceptions and reflections of English, History and Mathematics teachers from across the NSW secondary school system as they dealt with the demands of new syllabus documents. Despite the diversity of this large group, there are a number of shared themes which relate to the teachers' willingness and abilities to respond in a time of significant curriculum change. Their discourses, the images and metaphors they used to express their views, and their descriptions of their practices all provide insight into the ways that a syllabus, a subject, and a sense self play a role in shaping the classroom experience.

Our investigations show that the process of teacher change is complex and challenging, and that simply mandating a new syllabus does not necessarily guarantee any significant shift in classroom practices. Teachers' experiences, both as learners during their own school years and throughout their professional careers, act as powerful influences in shaping their current thinking about the nature of their teaching subject and what might constitute good pedagogy within that discipline. The impact of teachers' past experiences in traditional classroom settings raises another important difficulty in using syllabus change to bring about reform. In all of our studies, we consistently saw evidence of teachers who claimed to be implementing the revised syllabus in their subject area but could not describe how their classroom practice was now aligned to the central tenets of the new curriculum. Some teachers appeared to misinterpret the syllabus, especially with regards to transforming their pedagogy, and thus mistakenly thought that they were conforming to its requirements when, in fact, they were not. Others showed a tendency to try and fit the new syllabus to their existing classroom practices rather than consider alternative approaches in their teaching. In either case, it is clear from our research that

many teachers simply do not have the knowledge or experience of reform pedagogies that enable them to engage profitably with new curricula that call for significant changes in teaching methods.

Teachers expressed some frustration at the top-down approach which they felt had imposed new curriculum on them without giving them much guidance about what they were expected to do. The participants in our studies were emphatic in their call for new materials, resources, work samples, and other materials which would help them interpret the syllabus and provide practical examples of how to meet its requirements. Yet syllabus reforms that provide the context for our research are really only possible when teachers fundamentally reconceptualise their roles and adopt new pedagogical approaches, a significant challenge for many (Clarke, 1997).

Successful educational change only occurs when teachers are included and supported in the reform processes (Acker, 1999; Fullan, 1982; Darling-Hammond, 1998; Grundy, 1987; Huberman & Miles, 1984). Teachers need to have opportunities to learn, to participate with ownership, to reflect, and to enhance their professional identities through customized, relevant and timely support that involves teachers and their agencies exercising professional leadership (Taber, 2007). Teachers clearly need to be supported if they are to change but the provision of new curriculum materials is not of itself sufficient to bring about change in teaching methods (Norton, McRobbie, & Cooper, 2002) because these materials are always viewed by teachers through their current beliefs. It is therefore vital that teachers are provided with examples of reform-oriented teaching practices as well (Manouchehri & Goodman, 2000). More importantly, teachers might also benefit from their own first-hand experiences as learners by participating in innovative classroom activities during professional development programs. Time is also a major factor inhibiting the promotion of change in practice. If teachers are subsequently given time to think about the learning tasks in which they have engaged, then such reflection has the potential to bring about changes in beliefs about teaching and learning practices, a necessary first step on the path to reform (Wilson & Cooney, 2002).

Our studies reveal serious implications for those who prepare professional development programs designed to assist teachers to bring about changes in their attitudes and behaviours and to implement a new syllabus. The findings are strong that a "one size fits all model" of in-service does not facilitate the sorts of shifts required to engage teachers in critically rethinking and replanning their practice. Because of the variety of individual responses expressed by teachers about change and the complex relationship between teachers' professional identities and their subject constructions, an educative program needs to acknowledge and discuss the underlying assumptions and beliefs of its participants. More planned opportunities are required through professional development for teachers to explore the unknown, to transform what is already known, and to construct new knowledge.

Coherent professional development programs that specifically address the distinctive characteristics of the subject (see Grossman & Stodolsky, 1995) and which promote ideas of professional autonomy and self-efficacy may enhance teachers' implementation of new

ideas and content. Although the teachers emphasised their desire for support materials, it would seem more appropriate; given their rather indiscriminate adoption of whatever models were available; to develop their expertise in producing their own materials which could be tailored for their local contexts and to assist them to locate high quality resources. Scott (1999) has suggested it is the wider educational and professional associations who play a key role in providing resources and development courses in times of change. As these studies indicate, it was frequently the subject's professional association that contributed the most valuable support for many teachers and it is obvious that they should continue their work to enhance the professional development of their members. These bodies need to be well funded and allowed sufficient time to develop support programs and materials for curriculum reform.

### **Conclusion: Changing teachers in times of curriculum change**

How these teachers responded to a new syllabus and the nature of the actions they took contributes important understanding about the centrality of the teacher's role in the implementation of curriculum change. There is real tension between the teachers' discourses and their practices, and this interplay illuminates the very complex nature of change implementation. These experts in curriculum delivery display signs that many of them are disquieted and uncertain. Their discourses about the new syllabuses are emergent ones and the things they say are not particularly fixed as the various contradictions and paradoxes that are present reveal. Their practices – strongly informed by their own individualised constructions of self and subject – reflect genuine attempts to engage with aspects of the changes but, in many cases, without sufficient understanding as to how to enact major curriculum reform. It is essential that ongoing opportunities are given for all teachers to continue to learn and to monitor and evaluate their progress through mandated change in order for them to feel greater self-efficacy and to meet the ongoing challenges of innovative teaching in the twenty-first century.

### **References**

- Acker, S. (1999). *The realities of teachers' work. Never a dull moment*. London: Cassell.
- Board of Studies, NSW (1999a). *English Stage 6 Syllabus*. Sydney: NSW Board of Studies.
- Board of Studies, NSW (1999b). *Stage 6 Syllabus Ancient History*. Sydney: NSW Board of Studies.
- Board of Studies, NSW (1999c). *Stage 6 Syllabus Extension History*. Sydney: NSW Board of Studies.
- Board of Studies, NSW (1999d). *Stage 6 Syllabus Modern History*. Sydney: NSW Board of Studies.
- Board of Studies, NSW (2002). *Mathematics 7-10 Syllabus*. Sydney: NSW Board of Studies.
- Butler, J. (1996). Professional development: practice as text, reflection as process, and self as locus. *Australian Journal of Education*, 40(3), 265–283.
- Clarke, D. (1997). The changing role of the mathematics teacher. *Journal for Research in Mathematics Education*, 28, 278-308.

- Darling-Hammond, L. (1998). Policy and change: Getting beyond bureaucracy. In A. Hargreaves, A. Lieberman, M. Fullan & D. Hopkins (Eds.), *International Handbook of Educational Change* (pp. 642-667). Great Britain: Kluwer Academic Publishers.
- Eisenhardt, K. (1989). Building theories from case study research. *Academy of Management Review*, 14(4), 532-550.
- Fullan, M. (1982). *The meaning of educational change*. New York: Teachers College Press.
- Fullan, M. (1999). *Change forces. The sequel*. London: The Falmer Press.
- Gee, J. P. (1996). *Social linguistics and literacies. Ideology in discourses*. (2nd ed.) London & New York: Routledge.
- Gee, J. P. (1999). *An introduction to discourse analysis: Theory and method*. London & New York: Routledge.
- Grossman, P. L. & Stodolsky, S. S. (1995). Content as context: The role of school subjects in secondary school teaching. *Educational Researcher*, 24(8), 5-11.
- Grundy, S. (1987). *Curriculum: Product or praxis*. Great Britain: The Falmer Press.
- Huberman, M. A. & Miles, M. B. (1984). Drawing valid meaning from qualitative data: Towards a shared craft. *Educational Researcher*, 13(5), 20-30.
- Kirk, D. & Macdonald, D. (2001). Teacher voice and ownership of curriculum change. *Journal of Curriculum Studies*, 33(5), 551-567.
- Lee, A. (1996). *Gender, literacy, curriculum. Re-writing school geography*. London & Bristol: Taylor Francis Ltd.
- Manouchehri, A. & Goodman, T. (2000). Implementing mathematics reform: The challenge within. *Educational Studies in Mathematics*, 42, 1-34.
- Miles M. B. & Huberman, M. (1994). *An expanded sourcebook: Qualitative data analysis*. United States: Sage Publications, Inc.
- Naylor, J. & Bull, G. (2000). Teachers are supposed to teach not learn. *Change: Transformations in Education*, 3(2), 53-65.
- Norton, S., McRobbie, C. & Cooper, T. (2002). Teachers' responses to an investigative mathematics syllabus: Their goals and practices. *Mathematics Education Research Journal*, 14(1), 37-59.
- Sayre, S. (2002). Pyramid power: A train-the-trainer model to increase teacher usage of the ArtsConnectEd On-Line Resource. [viewed 6 April 2004, verified 24 Nov 2008] <http://www.archimuse.com/mw2002/papers/sayre/sayre.html>
- Scott, G. (1999). *Change matters. Making a difference in education and training*. St. Leonards, NSW: Allen & Unwin.
- Strauss, A. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Taber, K.S. (2007). *Classroom-based research and evidence-based practice*. Sage Publication: London.
- Weiner, G. (1994). The gendered curriculum. Developing a post-structuralist feminist analysis. *The Australian Educational Researcher*, 21(1), 63-86.
- Wilson, M. & Cooney, T. J. (2002). Mathematics teacher change and development. The role of beliefs. In G. Leder, E. Pehkonen & G. Törner (Eds.), *Beliefs: A hidden variable in mathematics education?* (pp. 127-148). Dordrecht: Kluwer Academic Publishers.
- Yin, R. (1984). *Case study research*. Beverly Hills, CA: Sage Publications.

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