Curriculum knowledge and understanding change: Two significant discourses in Health and Physical Education curriculum making in contemporary school education

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Abstract

Elsewhere (Brooker & Clennett, 2006a, b) it has been argued that Health & Physical Education as an area of school learning is being redefined in the context of contemporary school education where traditional learning areas are being expected to contribute to the development of more generic curriculum outcomes. Such expectations create new spaces and challenges for schools and teachers (and systems) with respect to curriculum design. Schools and teachers are required to think differently about how the curriculum is structured and the processes of curriculum making to support the implementation of the new curriculum. In these circumstances where teachers, curriculum leaders, and school leaders may have had little or no history of involvement in curriculum making, the challenges are significant. The purpose of this paper is to explore two key discourses, curriculum knowledge and understanding change, that frame curriculum making for contemporary school education.
Background

In the last decade there have been a number of curriculum innovations that have been introduced in Australia. The focus for this paper is the implementation of three of those initiatives - a Health & Physical Education Key Learning Area syllabus (HPE KLA) in Queensland; an Essential Learnings Framework (ELF) in Tasmania; and an Essential Learnings curriculum in Victoria (VELS) – each of which is described briefly below. The discussion contained in this paper is based on the authors’ experiences in the both studying and implementing these curricula.

Queensland – HPE Key Learning Area Syllabus

Drawing on the nationally endorsed statement and profile, work began on the design of a syllabus for a HPE KLA to guide teaching and learning for the compulsory years of schooling. A draft syllabus document published by the QSCC in May 1997 confirmed that key elements of the national statement and profile had been adopted. These were: the identification of strands; a focus on outcomes for various levels of schooling; an emphasis on the processes of learning; and the three key principles of diversity, social justice, and supportive environments. These elements, individually and collectively, represented a radically different approach to the conceptualisation of a HPE curriculum in the Queensland schooling context and in the structure of the structure of a curriculum syllabus.

The syllabus drew together content from a range of individual pre-existing subject areas (home economics; personal development; health; human relationships education; religious education; physical education; and outdoor education) and reconfigured this knowledge into three strands: Promoting the Health of Individuals and Communities; Developing Concepts and Skills for Physical Activity; and Enhancing Personal Development. It was expected that curriculum programs in schools would reflect integration across the three strands. Because of the eclectic nature of the HPE KLA there was a deliberate effort to avoid naming the strands in ways that make direct links to subject areas.

Tasmania – Essential Learnings Framework

In the context of rapid societal changes, created as a result of the changing political, economic and social climate, the Tasmanian Department of Education undertook an extensive research and consultation process resulting in the development of a school reform initiative, entitled the Essential Learning Framework (ELF) (Tasmania Department of Education, 2002). As with the Queensland model, it was aimed at better preparing students in state schools for life and work beyond 2010 and was regarded as a “… positive response to a worldwide call for curriculum that engages all learners, including adolescents, and which results in deeper understanding about important, life related matters” (Tasmanian Department of Education, 2002, p. 5).

The Framework identifies five “learnings” that are regarded as being essential for school students to pursue: Communicating, Social Responsibility, World Futures, Thinking and Personal Futures. The five “Essential Learnings” (ELs) give rise to a set of “culminating outcomes”: Inquiring and reflective thinkers; Effective communicators; Self-directed and ethical people; Responsible citizens; and World contributors. Each of the five essential learnings is further defined by 18 Key Elements.

Victoria – Victorian Essential learnings

The VELS are based on best practice in Victorian schools, national and international research and are grounded in a set of educational principles: Learning for All, Pursuit of Excellence, Engagement and Effort, Respect for Evidence, and Openness of Mind (VCAC, 2006). These principles have been
derived from a broad range of consultations with schools and stakeholders within the Victorian community. The VELs are underpinned by three ‘interwoven purposes’: to equip students with the capacities to ‘Manage themselves and their relations with others; understand the world; and act effectively in the world.

In order to achieve these purposes, the Learning Standards are comprised of three core, inter-related strands; Physical, Personal & Social Learning, Discipline-based Learning and Interdisciplinary Learning, with each Strand supported by a number of domains. The “Health and Physical Education” domain is located within the Physical, Personal & Social Learning strand. The VELs are meant to foster interdisciplinary learning which is focused on more generic knowledge, skills and behaviours rather than on specific knowledge ‘disciplines’ as traditionally defined.

Part A

A silence in the implementation of an innovative curriculum: a discourse of change

A decision to launch a curriculum with a strong interdisciplinary intent into structures based around subject or subject-oriented learning areas is a socio-culturally located project of action which involves the conscious rejection of existing curriculum arrangements and a choice for the implementation of an integrated studies structure (Esland, 1971). It is a task of “structured human activity” in which “processes of meaning making and communication are intrinsic” to the curriculum making activity (Kirk, Macdonald & Tinning, 1997). The process of implementation process is not merely a technical exercise because teachers’ personal ideologies, predispositions, values and beliefs (Evans and Davies, 1988; Sparkes, 1990) are brought to bear on the development of the curriculum program. Teachers hold their own conceptualisation about what constitutes worthwhile knowledge and these inform the curriculum-making process.

Teachers and curriculum change

Curriculum innovation in schools is complex, dynamic, non-linear, multi-layered and multi-dimensional social activity with differential effects on those involved in the change process (Ball, 1985; Brady and Kennedy, 1999; Fullan, 1993; Fullan, 1997; Sparkes, 1991a). The level of a teacher’s involvement in innovation, is grounded in their own value system and based on their subjective assessment of what will accrue to them in relation to their investment (Sparkes, 1991b). Fullan (1982) has noted that, “teachers are often more concerned about how the change will affect them personally, in terms of their in-classroom and extra-classroom work, than they are about a description of the goals and supposed benefits of the program” (p. 28). The significance of the costs-rewards framework is summarised by Sparkes (1991b) who points out that:

…an awareness of the costs and rewards for teachers involved will continue to provide not only insights into the lives of teachers, but also an understanding of the problems and worries they have to cope with as part of the process of innovation in schools. (p. 32)

In terms of costs and rewards implementing a multi-subject curriculum innovation, a significant aspect which influences teachers’ participation is that teachers must be convinced that the innovation’s potential advantages will outweigh the “risks of disrupting the status quo” (Panaritis, 1995, p. 626). Two areas of reward, student outcomes and teacher satisfaction, are important. Teachers must be convinced that an interdisciplinary curriculum will generate better outcomes for
students and that it will significantly enhance their professional satisfaction and create opportunities for collegiality (Panaritis, 1995).

Some of those involved in curriculum innovation will regard themselves as ‘winners’ and others as ‘losers’ which, as Sparkes (1991b) points out, “means that rarely can change be introduced without some form of overt or covert conflict” (p. 20). The difference between winners and losers is described as follows: “Winners will be those people who perceive themselves as currently experiencing more gains than losses from the changes or who anticipate doing so in the foreseeable future. By contrast, “losers” perceive the losses (potential or actual) to outweigh the gains” (Sparkes, 1991b, p. 21). Roskies et al., (1988) have identified a further group, the ‘sideliners’ who do not consider the change personally relevant or are unclear about whether a change is positive or negative for them. This group do not perceive themselves to be winners or losers. How a person perceives an innovation can be influenced by their status in the change process. It has been shown that, because of their role in leading or initiating curriculum change, individuals who hold positions of authority in schools are more likely to have a positive view of innovation than colleagues of lower status. According to Brady (1985), this status factor has one major educational implication:

If those in authority have a more idealized picture of curriculum functioning in the school, this view might conceivably limit their perception of staff discontent in curriculum matters, and act as brake on further change. Such a finding further underlines the need for those structures in schools which facilitate continuous dialogue amongst all staff whatever position they occupy in the hierarchy. (p. 227)

The notion that there may be winners and losers in curriculum innovation implies an emotional dimension which is often ignored or a best selectively considered by managers of innovation (Hargreaves, 1998). It has been shown that curriculum planning engages emotions (Hargreaves, 1998). In a study focused on emotions and curriculum change, Hargreaves (1998) concluded that “One important way in which teachers interpreted the educational changes… was in terms of the impact of these changes on their own emotional goals and relationships” (pp. 573-574). To exemplify how emotions might influence curriculum planning, Hargreaves (1998) suggested a number of possible effects of the emotion of resentment:

(it will) undermine and overwhelm rationally made decisions, committee work will be poisoned by members with unresolved grudges and grievances, and curriculum planning will become stilted and boring when teachers have to plan things with people with whom they don’t already have a relationship. (p. 560)

The emotional response of teachers in response to uncertainty in their work context is somewhat unpredictable (Jeffrey and Woods, 1996). Even in circumstances where curriculum change is scheduled by government policy, there is much about the implementation of change that is unscheduled and as Jeffrey and Woods (1996) point out:

There are no regulations or guidance by custom or tradition on how one should feel in such circumstances. There are no recognised procedures, formalised ceremonies, rule-governed processes on which to model one’s emotional behaviour. In a real sense teachers have to feel there own way. (p. 327)

Another factor in the process of curriculum innovation is teacher competence. Sparkes (1991b) make a distinction between ‘technical competence’ and ‘procedural competence’. Technical competence refers to a teacher’s ability to perform a physical skill whereas procedural competence...
is related to the ability to translate concepts into practice, to bridge the theory-practice gap. Procedural competence enables teachers to “make the difficult conceptual transformation from abstract ideas contained in the ‘discursive’ mode of consciousness to actualities that are mediated within the ‘practical’ mode of consciousness” (Sparkes, 1991b with reference to Cole, 1985). Curriculum innovation requires teachers to transform curriculum documents or ideas into practice. To be effective, such transformation needs teachers to have a ‘procedural clarity’ about the innovation. Because procedural clarity is often lacking in an innovation “teachers are often left with a sense of ‘false clarity’ or ‘painful unclarity’, both of which have negative effects on changing practice” (Sparkes, 1991b). Fullan (1982) points out that false clarity occurs when teachers think they have changed “but have only assimilated the superficial trappings of the new practice” (p. 28). Painful unclarity is experienced when “unclear innovations are attempted under conditions which do not support the development of the subjective meaning of change” (p. 28).

**Teachers’ ‘tools’ for curriculum-making**

A “cultural perspective” (Sparkes, 1991c) on curriculum-making gives emphasis to the personal meanings of curriculum change held by teachers. It regards teachers as “creators of meaning” (Hargreaves, 1984, p. 216). In creating and responding to change and innovation teachers have at their disposal “cultural tool kits” (Sparkes, 1989; 1991a) made up from symbols, stories, rituals and world views which can be configured in different ways to solve different kinds of problems (Sparkes, 1991a). Over time, and as a result of teachers responding to the same or similar curriculum challenges (eg. top-down curriculum innovation), there is a hegemony of the tools (eg. indifference; resistance) selected and their “application and operation becomes routinised and taken for granted” (Sparkes, 1991a). However, it must be noted that every change has a level of uniqueness and the selection of tools and the configuration of those tools will be different depending on whether teachers are adjusting to, or deviating from, an existing curriculum, or whether they are engaging with a more fundamental change in the curriculum (Webster, 1976).
The “ebb and flow” of teacher commitment has also been identified as a factor within the innovative process in a physical education context (Sparkes, 1998; 1991b). In the study of Branstown school, Sparkes worked with five categories of teacher commitment: commitment as caring; commitment as involvement (the expenditure of time and energy); commitment as career continuance (“getting on” in teaching); commitment and critical incidents; and commitment and the attribution of motives. Sparkes (1991b) summed up the significance of teacher commitment in the innovation process:

The dynamic interplay between these forms of commitment and the manner in which they appear to be intimately linked with… other teacher concerns… bears testimony to the extremely complex nature of change within schools and departments. (p. 30)

Teachers also need to believe that they have a role to play in curriculum-making, even in cases when the initiative for curriculum change comes from external sources. In some circumstances teachers believe that they have no control over the curriculum, a view which “lies more with perception than fact” (Brazee and Capelluti, 1995, p. 118). Teachers inherently have power over the curriculum but “they THINK that someone else actually controls it.” This view in understandable especially in contexts where a curriculum initiative has origins outside of the school or in cases where a dominant person controls a curriculum-making project. However, the consequences of individual teachers thinking that they have no authority to make changes in a curriculum, are limited possibilities for curriculum improvement. Consequently, the question of “what should the curriculum be?” is rarely posed and discussed (Brazee and Capelluti, 1995).

**Discussion**

The organisation of curriculum in schools is characterised by discourses that are embedded in the interplay between curriculum spaces (eg. subject areas or learning areas) and the people (eg. teachers) who inhabit those spaces. In circumstances where curriculum change is infrequent, over time the discourses become familiar and serve to maintain a curriculum status quo. When teachers are confronted with implementing a change in curriculum policy after a long season of curriculum stability, adherence to familiar discourses is to be expected. If sustainable curriculum change is desired, it is not sufficient for teachers to be simply presented with the new curriculum policy as “text”. For such text to become a “policy-in-use” (Bowe, Ball and Gold, 1992), the development of a discourse of change must accompany the text.

In the curriculum-making projects referred to in this paper, teachers were expected to implement an innovative and unfamiliar curriculum without all of the tools for the job. While teachers (or at least a representative of the teachers) had access to support (albeit limited) for the development of an understanding of the substantive nature of the new curricula, it was assumed that a discourse of change was available to teachers to guide the curriculum-making process. Almost all of the teachers
in the three schools had no significant curriculum-making experience to draw on and their previous curriculum work had taken place within the security of well-established subject area boundaries and within the comfort of familiar curriculum content. In these circumstances, teachers could be expected to adopt an “informal” approach to curriculum-making, one that follows no set procedure and becomes an “unpredictable and idiosyncratic” creation (Walker, 1990, p. 468). The exception was in the Victorian school, where the leader of the curriculum change in the HPE area had previous experience in implementing the Essential Learnings curriculum in a Tasmanian school.

Working with curricula which are conceptually grounded in an interdisciplinary framework based on knowledge from a range of traditional school subject areas, placed new demands on teachers. Successful curriculum-making for the curricula required teachers to engage in a discourse that would make the strange familiar. Because of a mismatch between the intent of the new curricula and the curriculum structures in the school (see Brooker, 2001), the construction of a new curriculum needed to move beyond the existing curricula discourses grounded in subject area thinking to a discourse located in a negotiated space between and across subject area boundaries. The engagement with such a discourse was limited by four silences in the curriculum-making process: a shared vision; a shared language; shared decision making; and a shared commitment to curriculum action. Together these dimensions compose the anatomy of a discourse of change for curriculum-making in a key learning area.

A shared vision for the curriculum
One of the fundamental silences that emerged from the studies of curriculum-making was the absence of a shared vision for the curricula and its place in the curriculum structure of the school. Teachers’ knowledge of the structure and content of the curricula was only ever partial due to a limited engagement with appropriate processes for developing an understanding of the conceptual framework of the curricula. Teachers were never in a position to contribute to the development of a shared vision for the curricula as their personal knowledge of the syllabus was embryonic for most of the implementation period. In part this knowledge deficit was caused by a lack of access to the public knowledge (Butler, 1992) disseminated through professional development opportunities organised to promote teachers’ knowledge of the curricula and in part due to a limited level of interest. More importantly, an opportunity to provide some remediation for teachers in relation to curricula knowledge was missed due to a lack of history of curriculum change and curriculum-making amongst the teachers involved in the implementation of the curricula. There was no previous engagement by teachers with a discourse of change or “cultural tool kit” (Sparkes, 1989) available to guide the curriculum making process or to adapt for the new curriculum context.

Curriculum-making processes in the schools were fragmented, a factor that limited the possibility for the development of a shared vision at any level of curriculum-making. There was a lack of “interpretive readiness” (Barrett et al, 1995, p. 361) by the teachers in the school. Much of the deliberative activity surrounding the implementation of the curricula was informed by a blurred vision for the curricula. Consequently, the emerging discourse was based on partial and individual understandings, which proved to be insufficient for the construction of a coherent curriculum-making discourse for the new curricula.

A shared language for the curriculum
Inherent in the implementation of the new curricula was a curriculum paradox: How can a new way of curriculum activity be understood by those in the school if the change is not communicated in familiar terms? Social constructionists would argue that this paradox is inevitable; people have no tabula rasa powers to view language and behaviours suddenly with “fresh eyes.” Each interaction in the curriculum-making process was dominated by the persistence of historical curriculum narratives and interpreted by teachers with pre-understandings of the language of previous curricula, which
delimited how they made sense of the new curricula. Teachers used familiar ways of thinking to interpret the new curricula (Barrett et al., 1995, p. 360).

The implementation of the curricula required teachers to develop a new language at two levels. At one level, teachers within subject areas had to move away from the narrowly defined subject-based narratives to embrace the language and intent of the interdisciplinary curricula. At another level, teachers in different subject departments had to construct a common narrative for the curricula which would open up and sustain a curriculum dialogue to facilitate and support the implementation of the curricula. The development of an across-subject “metanarrative” proved difficult for teachers whose personal ideologies, predispositions, values and beliefs about curriculum were embodied in a subject-based discourse. Also, there was no strong history of inter-subject area dialogue around curriculum matters amongst the teachers. Developing an interdisciplinary curricula language was further complicated by the coexistence of the existing curricula during a period of implementation. Throughout the curriculum-making process, the language of subject areas and current practice dominated the dialogue and served as a barrier to dialogue within and between subject areas and as a source of curricular confusion for teachers.

**Shared decision making for the curriculum**
The curriculum-making process for the curricula was hindered by a lack of cooperation between and within subject areas. There was no “procedural clarity” (Sparkes, 1991b) to the decision making process. The challenging task of implementing an interdisciplinary curriculum into a subject or learning area structure presupposed the collaborative involvement of the teachers from more than one curriculum area in making decisions to facilitate the curriculum-making process. Such engagement was relatively rare (often for good reasons of time and opportunity and other reasons of apathy or disinterest) which limited the decision making. The teachers needed to meet with each other regularly for the purposes of designing, discussing and evaluating the curriculum-making project, its possibilities and failures (Perez, et al., 1998).

The neglect of the decision-making processes in the implementation for the curricula resulted in a very underdeveloped discourse of change. Most of the implementation decisions were made by a single coordinator who, in two of the schools, had no previous experience of curriculum innovation nor of leading a curriculum-making project. In the Victorian school where the coordinator was experienced, teachers were not all that supportive. Rather than the shared development of a discourse of change, individualism and indifference emerged as hegemonic curriculum-making tools (Sparkes, 1991a).

**Shared commitment to curriculum action for the curriculum**
The experience from the three schools has demonstrated that the same level of commitment to the implementation of the curricula was not shared by all of the curriculum makers in the school and that their commitment ebbed and flowed (Sparkes, 1998a) throughout the curriculum-making process. There was little evidence to suggest that the teachers worked together as a community of curriculum interpreters, acting in mutually corrective and collaborative ways. Much of the curriculum-making process was “dominated” and “controlled” by the individualistic effort.

The silences in commitment of teachers to the implementation of the curricula were also problematic. Teachers perceived that they had no real role to play and had no control over the curriculum-making activity (Brazee and Capelluti, 1995). Teacher indifference, apathy and resistance, particularly in the first few months of the curriculum-making process, allowed the views of the coordinator to shape the implementation. There was a lack of cohesive effort, which undermined any hope of developing a shared change pathway to guide the introduction of the curricula.

**Conclusion**
Much has been written about factors that inhibit or facilitate change in teachers’ curriculum practice. While the identification of these factors is important because they provide explanatory power for understanding change and power for planning and effecting change, they very rarely find their way into the discourse of curriculum reform projects in the school context. This is particularly so for projects in which a new curriculum is devised by a central curriculum authority and passed down to teachers in schools for implementation. In these circumstances, teachers are often provided with in-service and professional development support to understand the substantive changes in a curriculum but are left to their own devices in terms of moving their thinking and practice from the old to the new. Such curriculum projects seem to be underpinned by an assumption that teachers can reach into their professional practice ‘kit’ and produce a change strategy that can be applied to a curriculum-making process. There is no denying that teachers are resourceful, particularly in relation to classroom practice. However, the existence of a significant body of literature about change (e.g. Fullan, 1993, 1997) bears testimony that implementing and sustaining change requires something more than resourcefulness. It requires a process that is context specific.

In the curriculum making projects reported in this paper, the context was very unfamiliar. The curricula were conceptually different to curricula of the past. In some cases, implementation required teachers from different subject areas with no previous working relationship to collaborate, and teachers had no experience of curriculum-making. Teachers found themselves in new curriculum territory without the tools to navigate the curricular terrain. In these circumstances the curriculum makers were required to construct a discourse of change. The anatomy of such a discourse for curriculum-making should include shared a shared vision; a shared language; shared decision making; and a shared commitment to curriculum action.

**Part B**

**An essential discourse for innovative curriculum change: Teachers’ curriculum knowledge**

The links between curriculum policy initiatives and improved teaching practice are complex and tenuous because, as Darling-Hammond and McLaughlin (1996) note, new curriculum policy, of itself, cannot produce greater student learning and understandings. Elmore and Sykes (1992) suggest that “understanding curriculum policy... involves understanding the parallel processes by which curriculum and policy are elaborated in teaching practice” (p.192). Further, while there is an emerging recognition that the relationship between policy and practice is more than a question of addressing a lack of capacity and desire on the part of teachers (Odden, 1991), the specific relationships between policy initiatives and teachers’ professional practice remains relatively unexplored and the outcomes of research continue to be uncertain and problematic.

There are various sets of crucial elements that occupy the space in between policy initiatives and teachers’ practice. For example, Fullan (1992) has grouped elements into characteristics of the intention for change, factors operating at the district level, and school factors. In the latter set, which is the focus for the study reported in this paper, Fullan includes factors such as the role of the principal, teacher-teacher relationships and teacher characteristics. Concerning this latter set, Hall and Galluzzo (1991) have noted the importance of teachers’ perceptions, their concerns, and the roles of significant leaders in the school in influencing policy implementation and its impact on practice. Hall (1992) has likewise noted the importance of teachers’ images of change and curriculum. The teachers’ context of practice is another set of elements related to schools. Fennell (1992), in studying teachers in a Canadian context during the implementation of a core curriculum policy, has noted that least teacher resistance to change was found in schools with the most communication and teacher collaboration.
Another element that occupies the space between curriculum policy and curriculum practice is teacher knowledge. Connelly and Clandinin (1988) have referred to the “personal practical knowledge” of teachers which they define as:

A term designed to capture the idea of experience in a way that allows us to talk about teachers as knowledgeable and knowing persons. Personal practical knowledge is in the teacher’s past experience, in the teacher’s present mind and body, and in the future plans and actions. Personal practical knowledge is found in the teacher’s practice. It is, for any teacher, a particular way of constructing the past and the intentions of the future to deal with the exigencies of a present situation. (p. 25)

Similarly, Elbaz (1983) has referred to practical knowledge which incorporates experiential knowledge and knowledge of subject matter which the teacher integrates with personal beliefs and values and orients it to the particular teaching situation. Both pedagogical content knowledge and curricular knowledge are influenced by teachers’ knowledge of subject matter content (Grossman, 1994).

The starting point for the development of personal practical knowledge for a new curriculum is usually the curriculum documents such as syllabuses or frameworks, which are the major sources for the teaching knowledge base (Shulman, 1987). The documents embody the meaning for the curriculum and as such represent the official knowledge (Apple, 1993) text for a curriculum. They are intended to be more than symbolic. Before making pedagogical decisions about how curriculum materials are best taught, teachers are expected to develop an understanding of what is to be taught. Teachers are expected to “comprehend critically a set of ideas to be taught… how a given idea relates to other ideas in the same subject area and to ideas in other subject as well” (Shulman, 1987, p. 14). Such comprehension is a prerequisite to the other dimensions of pedagogical reasoning: transformation; instruction; evaluation; reflection; and new comprehensions (Shulman, 1987). The information represented in curriculum documents help to establish a structure for making informed decisions about the design of teaching and learning programs and practices (Behar, 1994) and provide a starting point for teachers’ curriculum discourse. Curriculum documents are stated in propositional and formal terms and all too often do not address, or address inadequately, “how and whether such propositional knowledge can be understood, in Deweyan terms, as ‘knowledge in use’” (Stengel, 1997, p. 29).

Research has demonstrated a relationship between teachers’ subject matter knowledge and the processes of planning and instruction. In developing curriculum for students, teachers are more likely to emphasize those areas in which they are more knowledgeable and to avoid or de-emphasize the areas in which they have relatively less content knowledge (Carlsen, 1991; Smith and Neale, 1991). It has also been suggested that teachers’ subject matter knowledge may influence how they exploit the curriculum potential of a subject (Gudmundsdottir, 1990; Wilson and Wineburg, 1988). Teachers’ subject backgrounds affect how they adapt a given curriculum to match their subject matter knowledge (Wilson and Wineburg, 1988) and that history influences how they think about and enact curriculum (Jewett, Bain and Ennis, 1998). Research has also demonstrated that teachers’ subject matter knowledge influences their ability to construct new explanations or activities for students (Leinhardt and Smith, 1985; Smith and Neale, 1991). Teachers’ knowledge of the content is directly related to what is taught and how it is taught (Grossman, 1994). It has been shown that for ‘real change’ to occur in curriculum practices, teachers must have professional development opportunities related to subject matter knowledge (Penney and Fox, 1997).

Discussion

The experiences in three schools have demonstrated that the central design artifact of the curriculum innovation, the curriculum document, was marginalised in the curriculum-making process. Despite its importance as the document which contained the vision and “content” for the curricula, it never
played more than a bit part in the curriculum-making story. While the rhetoric of all parties in the school acknowledged its importance, the lack of authentic engagement by the majority with the curriculum document was a significant silence in the curriculum-making process. The curricula were disaffected from the curriculum-making process. Consequently, the implementation of curricula limped along in the shadow of old knowledge and past practice and was never brought to full bloom. Experience from the schools indicated that the estrangement or marginalisation of the curriculum documents from the curriculum practice could be explained from two perspectives. Firstly, the curriculum-making space was dominated by an artifact of curriculum history in the school, the existing curricula. Secondly, there was reluctance by teachers and school leaders to establish a relationship with the new curricula. Each of these is discussed below.

**Adherence to the existing curricula**

Maintaining the curriculum status quo was a comfortable place for teachers to occupy but it robbed them of the opportunity to grasp and experience the magnitude of the change that was expected from the new curricula. Prior to the implementation of the curricula, teachers had enjoyed a long ‘season’ without curriculum change. Curriculum documents (for health and physical education) had been in the school for many years, and teachers’ knowledge of such curricula was well developed. Practices emanating from the existing curriculum frameworks had become commonplace. Teachers had developed a well-defined curriculum discourse based on the knowledge from the existing curriculum documents. The new curricula were structured by a different conception of curriculum. It reflected a more contemporary curriculum discourse structured by an amalgam of familiar but mostly new knowledge gathered together from more than one subject area as well as focusing on more genetic outcomes. Curriculum-making for the new curricula required teachers to move beyond familiar subject area knowledge to embrace a vision for a new curriculum. A stronger grasp of the new curricula was a prerequisite to other dimensions of pedagogical reasoning (Shulman, 1987) and would have better supported teachers’ efforts to make distinctions, as well as to make connections, between the familiar and unfamiliar knowledge in the old and new curricula documents. The ability to make such determinations would have added much needed procedural clarity (Sparkes, 1991) to the curriculum-making process.

Such a shift required teachers to propel themselves into a new curricular discourse based on a less subject area focused and an integrated curriculum code. Because of the very different conceptual base for the new curricula, teachers could not solely rely on a familiarity with the “official knowledge” from past curricula. Their previously unchallenged engagement with knowledge from existing curricula served as a weakness in the emerging context of curriculum innovation and change. In the curriculum-making process for the new curricula, there was a strong tendency for teachers’ deliberations to become stalled by a reliance on their existing knowledge together with a reticence to become engaged with the knowledge of the new curricula.

**Teachers’ engagement with the new curricula**

The curriculum-making process was characterised by a sense that teachers were resistant to curriculum change. While teachers recognised that an understanding of the new curricula were important to its implementation in the school, there was little enthusiasm for pursuing that knowledge. There was little evidence to suggest that teachers had engaged with the documents in any meaningful way or that they had actively sought out opportunities to develop their knowledge of the curricula. Such activity was left to the leaders of the curriculum making project. Teachers adopted a passive stance in relation to the new curricula and the silences in their knowledge contributed to ongoing uncertainty and confusion for the curriculum-making process. The new curricula never gained a hold in the imagination or practice of the teachers. Throughout the implementation of the curricula, teachers remained indifferent to developing their knowledge of the new curricula. What were the conditions of the curriculum-making process that supported and perpetuated teachers’ indifference to developing their knowledge of the new curricula?
Teachers showed little enthusiasm for reading the document or for engaging in discussions focused on developing knowledge of the vision and content of the curricula. Their indifference remained unchallenged by the curriculum-making process. The way in which the new curricula were introduced into the schools relied on the curricula knowledge and curriculum making skills of an individual appointed or designated as the “leader” or “driver” of the process. Inevitably, curriculum making resembled a top-down curriculum-making process. The leader of the process in the school was the holder and distributor of the new curricula knowledge. It was the leader who attended most of the professional development opportunities that were organised for developing understandings of the curricula. The opportunities were designed as opportunities for teachers from curriculum-making schools to “get inside the minds” of the curriculum developers about the vision and content of the curricula as well as for accessing the developing personal practical knowledge (Connelly and Clandinin, 1988) of teachers from other curriculum-making schools. As a consequence, teacher’s regarded the implementation of the curricula as the leader’s responsibility and relied on the knowledge of the curricula transmitted at team or staff meetings. They were waiting for knowledge of the curricula to be delivered to them, which rendered them passive in the curriculum-making process. Teachers would have better able to engage with the implementation had they been proactive in their pursuit of the curriculum knowledge.

In terms of knowledge development, staff or team meetings, proved to be of limited value for a number of reasons. Not all teachers attended all staff meetings. The conduct of the meetings was not always supportive of knowledge development. While the meetings were genuine attempts to inform teachers about the curricula and the initial meetings focused on some of the conceptual aspects of the curricula, the focus for the meetings quickly directed to teaching, learning and assessment practices (pedagogical knowledge) without teachers having developed a sound working knowledge of the vision and intent of the curricula. Practice issues took precedence over conceptual understanding. In the early stages of implementation, the flow of information at the meetings was unidirectional from the leader to teachers and there was little time devoted to discussion or to exploring questions from teachers. Neither was there any expectation that teachers would have read the curricula and related documents in advance of the meetings. In some cases documents were not made available to staff either before or at the meeting. Consequently, teachers were accessing “second-hand” knowledge of the curricula which was limited by the level of the leaders, often fragile, knowledge of the curricula and they were in no position to critique or ask informed questions. The documents should have been the touchstone for every meeting to discuss the implementation of the new curricula.

**Conclusion**

In the curriculum making projects reported in this paper, it was particularly important that teachers’ developed a strong understanding of the new curricula as a platform for curriculum-making. The curriculum documents embodied the essence of the curricula. It provided an elaboration of the vision for the curricula and implicitly, the articulation of difference from previous curricula. Teachers did not pursue an understanding of the curricula. Their knowledge deficit ensured that the implementation of the curricula would be positioned within the shadow of teachers’ knowledge from the previous curricula. It also raises the question of what teachers listen to, or what knowledge they access, in the out-of-classroom place (Clandinin and Connelly, 1995).

A lack of a strong focus on the curriculum documents as the centre of the curriculum-making process undermined the development of teachers’ knowledge of the new curricula. Teachers’ knowledge of the curricula was partial which contributed to their uncertainty for the curriculum-making process. The silences in teachers’ knowledge of the curricula provided the foundations for a barrier to curriculum change. In circumstances where teachers are working with an innovative
curriculum that is conceptually different from previous curricula and one which challenges teachers’ historically embedded understandings of a curriculum, teachers’ engagement with the curriculum vision is essential. Such engagement is important if teachers are to exploit the curriculum potential (Smith and Neale, 1991) of an innovative curriculum and if they are to construct new explanations and activities for students (Leinhardt and Smith, 1985; Smith and Neale, 1991).

For sustainable curriculum change to occur, the conditions need to be created so that teachers’ attentions are focused on the artifact that is central to the curriculum-making process, the curriculum document. Curriculum innovation requires teachers to transform curriculum documents into curriculum practice. To be effective, such transformation needs teachers to have a ‘procedural clarity’ about the innovation. Because procedural clarity is often lacking in an innovation teachers are often left with a sense of ‘false clarity’ or ‘painful unclarity’ (Sparkes, 1991, p.27) both of which have negative effects on changing practice.
References


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