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A Personal Development, Health and  
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community of practice responding to  
curriculum change

Deborah K. Clarke  
University of Wollongong

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A Personal Development, Health and Physical  
Education (PDHPE) Community of Practice Responding  
to Curriculum Change

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A thesis submitted in partial fulfilment of the requirements for the award  
of the degree

DOCTOR OF EDUCATION

from

UNIVERSITY OF WOLLONGONG

Faculty of Education

2007

by

Deborah Kaye Clarke

Dip. Teach., BEd., MEd (Physical & Health Education)

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## Certification

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I, Deborah Kaye Clarke, declare that this thesis, submitted in partial fulfilment of the requirements for the award of Doctor of Education, in the Faculty of Education, University of Wollongong, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualification at any other institution.

Signed

Date

Deborah Kaye Clarke

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## Acknowledgements

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This has been the longest and hardest journey of my life. I have laughed, cried, given up, started again, kept going, and finally presented this thesis for examination. Like anything in life there are people who have influenced my path on this journey. To all those people – I thank you. In particular, thanks to:

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## Abstract

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In 1999, the New South Wales Board of Studies (NSW BOS) released a revised Stage 6 Personal Development, Health and Physical Education (PDHPE) syllabus<sup>1</sup>. This syllabus signalled a significant discursive shift with subject knowledge altering to reflect a socio-cultural perspective of health and physical activity. This shift challenged the identity of many Physical and Health Education teachers who have historically created their professional self around the scientific discourses of human movement.

Physical and Health Education teachers have been criticised for their lack of engagement with and insensitivity to the socio-cultural aspects of the revised syllabus (Gard & Wright, 2001; MacDonald et al. 2002), and been described as “elitist, sexist, 'pragmatic sceptics' and anti-intellectual” (Tinning, 2004). Given this professional identity, the question arose as to how professional development could assist NSW PDHPE teachers to engage with and commit to the socio-cultural perspective of the revised syllabus?

Therefore the aims of the study were to identify the professional identity of the members of the community of practice (Lave & Wenger, 1991) of PDHPE HSC markers and pre-service PDHPE teachers and establish how this identity influenced their preferences for particular aspects of the Stage 6 PDHPE syllabus. As a further educational outcome of this research, suggestions for professional development were proposed to assist PDHPE teachers to engage with curriculum change.

As a mixed-method study, data gathering involved surveying PDHPE HSC markers and pre-service PDHPE teachers, and undertaking semi-structured interviews with 25 PDHPE teachers. A range of NSW BOS and educational systems' professional development documents were used as artefacts. Survey data were analysed using Chi Square and Chi Square Automatic Interaction Detector (CHAID). Interview data were analysed for themes relating to the value of participating in communities of practice to assist in responding to curriculum change. The results from the examination of both the survey and interview data sources indicated that a range of factors influenced the HSC option selections of NSW PDHPE HSC markers. These factors included the academic ability, sex

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<sup>1</sup> Stage 6 is the post-compulsory years of schooling (Years 11&12) and PDHPE is a NSW Key Learning Area combining the “traditional” areas of Health and Physical Education.

and interest of their students. The profile of HSC markers also influenced their HSC option selection, with sources of professional development, years of teaching experience and sex of the marker being the most influential factors. The representative sample of HSC markers indicated that they were practical doers, seekers of certainty, gendered interpreters of the syllabus, and conservative participants in the broader PDHPE community of practice who maintain the status quo.

The results of the survey data further revealed that the pre-service PDHPE teachers in the research sample were influenced in their selection of HSC options by their students' interest, their own expertise and interests, the pedagogy they believed could be used to teach a particular option, and the application of the option beyond school.

Both HSC markers and pre-service PDHPE teachers indicated the benefits of engaging with colleagues as a resource for learning about a socio-cultural perspective of health and physical activity.

By cultivating particular conditions within the PDHPE community of practice, members could engage with the socio-cultural perspective of the 1999 syllabus through their participation in situated and reflective learning experiences. The results of the thesis clearly indicate that by participating in overlapping communities of practice, acting as brokers, and creating time for reflection and shared dialogue that NSW PDHPE teachers can make meaning of and commit to the socio-cultural perspective of the 1999 Stage 6 syllabus.



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# Chapter One

## A New Syllabus: An Invitation for Change

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### Introduction

In July 1999, the New South Wales Board of Studies (NSWBOS), the statutory body responsible for curriculum development, released new Stage 6<sup>1</sup> syllabuses for each Key Learning Area<sup>2</sup> (KLA) for implementation in 2000. These new syllabuses were a product of politically motivated, top-down curriculum change (Harris, 2003; Simpson, 2004) resulting from a state review of the Higher School Certificate (HSC). The syllabuses were informed by two governmental publications: *Shaping Their Future: Options for Reform of the Higher School Certificate* (McGaw, 1997) and the White Paper (NSW Government, 1997) *Securing Their Future: The NSW Government's Reforms for the Higher School Certificate*. The reform of the HSC represented one of the most important curriculum changes in NSW in many years, and had significant implications for teachers in relation to *what* was taught and *how* it was to be taught. These reforms were highly contested by professional associations and individual teachers, as they were viewed as challenging teachers' professional identity, dominant discourses and practised pedagogies (Harris, 2003; Harris & Marsh, 2005; Simpson, 2004; Van Rooy, 2000).

For the Stage 6 Personal Development, Health and Physical Education<sup>3</sup> (PDHPE) syllabus, the reform recommendations resulted in changes to both the ideological perspective of the syllabus content and the mandated pedagogies to be employed in classrooms. The new PDHPE syllabus had as its underlying philosophy a socio-cultural view of health and physical activity. The syllabus rationale clearly articulated its advocacy for "a social view of health where principles of diversity, social justice and supportive environments are fundamental aspects of health" (NSW BOS, 1999a, p. 6). The syllabus further stated that "the emphasis is on understanding how the body moves and the socio-cultural influences that regulate movement" (NSW BOS, 1999a, p. 7). The content of the new syllabus explicitly incorporated a mandatory element of

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<sup>1</sup> Stage 6 constitutes the two post-compulsory years of schooling (In NSW syllabuses are organized into Preliminary and HSC courses); that is Year 11 and 12, leading to attainment of the HSC.

<sup>2</sup> A Key Learning Area (KLA) is a curriculum organising unit that acts as a framework for developing the knowledge, skills and processes to be learnt in Australian schools.

<sup>3</sup> PDHPE combines the "traditional" discipline areas of Health and Physical Education.

study titled *Meanings of Health and Physical Activity*: a core module representing 10% of course content in the Preliminary Course which dealt with how “people’s views of health and physical activity vary according to their social, cultural and economic backgrounds” (NSW BOS, 1999a, p. 19). As well as mandatory content in both the Preliminary and HSC courses, three HSC options were offered that included a socio-cultural perspective of health and physical activity: *The Health of Young People*, *Sport and Physical Activity in Australian Society*, and *Equity and Health*. This was a significant discursive shift from the dominant discourses available to PDHPE teachers implementing the previous 1994 syllabus. A socio-cultural view of health and physical activity had not been highlighted in the previous syllabus nor explicitly addressed in preceding systemic professional development activities.

## Defining the Problem

Whilst the 1999 syllabus mandated significant portions of content that were underpinned by a socio-cultural perspective, there was still room within the HSC option section of the syllabus for a choice of perspectives. A human movement sciences perspective remained in two HSC options: *Sports Medicine* and *Improving Performance*. Accordingly, HSC teachers and students “voted with their feet” and continued to select the options that included this biomedical/biophysical and technical approach to physical activity. This was evidenced by the significant number of HSC candidates responding to these option questions (*Sports Medicine* > 88% and *Improving Performance* >71%) in the PDHPE HSC examinations from 2001-2004 (NSW BOS, 2005). Chapter Five provides a detailed statistical profile of how the 1999 Stage PDHPE syllabus has been taken up by teachers and their students. Furthermore, as an HSC senior marker since the inception of the Stage 6 course, I witnessed first-hand teachers privileging the human movement sciences perspective. Despite the shift in the syllabus perspective there is compelling evidence that the human movement sciences discourse not only remains but has considerable power.

The Australian literature suggests that Physical Education (PE)<sup>4</sup> teachers have been criticised for their lack of engagement with and insensitivity to socio-cultural aspects of health and physical activity (Gard & Wright, 2001; Macdonald, Hunter, Carlson & Penney, 2002), and have been described as “elitist, sexist, 'pragmatic sceptics' and anti-intellectual” (Tinning, 2004, p. 243). For NSW PDHPE teachers, this professional profile presents problems for engaging with a syllabus that focuses on an

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<sup>4</sup> In NSW PDHPE is an integrated subject, however in other Australian states PE and Health are taught as discrete subjects. Until recently the research literature has traditionally focused on the PE teacher. I have used research from other Australian states to draw comparisons between PE and Health teachers and NSW PDHPE teachers.

“examination of individual, family and community values and beliefs and the socio-cultural and physical environments in which they live” (NSW BOS, 1999a, p. 6). This professional profile could be attributed to teachers’ lack of understanding of a socio-cultural perspective due to limited exposure through tertiary preparation and professional development. The *HSC Subject Evaluation Report for PDHPE* (1998b) confirmed that available pre-service teacher education programs include:

studies related to the human movement components of the syllabus which are extensive and mandatory in all pre-service programs. However, studies related to aspects of personal and community health in some pre-service programs are omitted or available only through elective study. (p. 15)

It is these personal and community health subjects that most often focus on a socio-cultural perspective. Furthermore, in other Australian states, Macdonald (2006) acknowledge that certain types of students were attracted to undertaking PE teaching as a career. The “typical” PE student was “young, able-bodied, mesomorphic, Australian born, sport-loving, and somewhat politically conservative” (Macdonald, 2006, p. 28). My observations of PDHPE pre-service teachers in five NSW tertiary institutions in which I was employed, attest to the fact that similar types of students are attracted to PDHPE teaching in NSW. This together with pre-service preparation that has very little or no content related to a socio-cultural perspective (see Chapter Seven) suggests that beginning teachers now confronted with a syllabus that was framed in a socio-cultural perspective may view its implementation as problematic.

## **Professional Identity**

Historically, PE teachers<sup>5</sup> have defined themselves in relation to the masculine discourses of medicalization and scientific rationalism (Crawford, 1980; Kirk, 1990; Kirk & Colquhoun, 1989; Kirk & Tinning, 1990; Wright, 1996). These perspectives assisted teachers to pursue their interest in physical activity as a respectable intellectual pursuit, aligned with the hard sciences, and worthy of external examination at the post compulsory school level. Tinning, Macdonald, Wright and Hickey (2001) suggest that secondary teachers’ continued identification with specific subject matter, through their enjoyment of school subjects, tertiary preparation and their teaching career, leads to the subject becoming part of the teachers’ identity. Connell (1985) supports this notion that the school subject is at “the core of secondary school teachers’ self-definition” (p. 59). As such, challenges to curriculum

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<sup>5</sup> While this research explicitly addresses Physical Education, it can be extrapolated to NSW PDHPE teachers as evidenced by the dominance of content relating to the human movement sciences in the NSW post-compulsory PDHPE syllabus.

come to be seen as challenges to professional identity, and self-definition. The percentage of HSC candidates continuing to answer *Sports Medicine* (89%) and *Improving Performance* (81%) (NSW BOS, 2006); the two options with a human movement sciences perspective, suggested that HSC PDHPE teachers seem to have been attempting to retain their professional identity by continuing their established practice of teaching from a human movement sciences perspective.

The rationale for this research was to provide physical and health tertiary educators and agencies responsible for professional development with a profile of the forces that shape PDHPE teacher professional identity in a community of practice, and an insight into how professional development can be designed to create a successful learning community that embraces change. Furthermore, the research is significant as it has the potential to be extrapolated to teachers in other KLAs who are presented with curriculum change.

## Curriculum

When I use the term *curriculum*, I draw on the concept of negotiated practices (Goodson, 1988) that recognise the discursive elements that affect *what* and *how* students learn, and *what* and *how* teachers teach. These definitions acknowledge that curriculum is designed and implemented within specific settings, at specific times in history, and by particular groups of people. Syllabuses can therefore be viewed as political documents that are products of struggles of power, contestation and negotiation between groups with vested interests in a particular version of curriculum being valued (Wright, 1996). Until recently, the dominant discourses surrounding health and physical activity, those that advocate a scientific approach, (Kirk, 1990; 1997) have silenced and marginalised alternatives in syllabus documents in most states of Australia and in New Zealand (Dinan-Thompson, 2002; Macdonald, 2003; Macdonald & Glover, 1997).

Curriculum is not seen as a tangible thing but rather reflects “the values of dominant interest groups at the time” (Goodson, 1988, p. 9). By adopting this view of curriculum, I needed to investigate what knowledge is viewed as valuable, who constructs this knowledge, and how it is interpreted in the interactions between curriculum writers and teachers in their individual school contexts. Goodson (1988) recognises that knowledge is socially constructed and influenced by the wider social and political climate and that power relations are integral in defining what and whose knowledge is valued.

Goodson (1992) further notes that “the high ground of the written curriculum is subject to renegotiation at lower levels, notably the classroom” (p. 24). How the Stage 6 PDHPE syllabus is enacted in the classrooms of teachers is informed by their identity, preferred readings, experiences and contexts. In order to investigate how PDHPE teachers’ knowledge and identities were formed and maintained, how these identities shaped their engagements with the syllabus and how to invite NSW Stage 6 PDHPE teachers and pre-service PDHPE teachers to become a dynamic learning community form the focus of this research.

## **Community of Practice – A Theoretical Framework**

The research question needed a social theory of activity to explain how, why and where learning and identity formation took place for the broader community of in-service and pre-service PDHPE teachers. While activity theory, as espoused by several theorists (for example, Cole & Engeström, 1993; Engeström, 1987, 1993; Leont’ev, 1981; Vygotsky 1978, 1986; Wertsch, 1981, 1991) could aid in describing the *activities* of PDHPE teachers, the analysis required a theory that recognised the situated nature of learning in practice (Lave & Wenger, 1991). It was the aspect of *identity* and *relationships* from Lave and Wenger’s theory of “communities of practice”, that was useful to specifically make meaning of how:

- PDHPE teachers have fashioned their professional identities;
- their *positioning* in their professional community influenced their syllabus selections; and
- they interacted with each other in order to learn about the changes to the curriculum.

## **The PDHPE Community of Practice**

Wenger (1998) proposes three characteristics which define a community of practice:

1. shared repertoire;
2. mutual engagement; and
3. joint enterprise.

Chapter Three fully details these three characteristics. As a participant researcher, my interactions with and observations of the PDHPE community of practice (Chapter Two) provided me with evidence to argue that its members are demonstrating indicators of these three characteristics. For example:



### **Shared Repertoire**

A shared repertoire is a set of resources that members use to engage in, make meaning of and refine their practice. Members share a cultural context for their work. The PDHPE community of practice share a history associated with their subject discipline, the socio-political influences on the construction of their curriculum documents, the formation of their professional identity and the value attributed to their work (Chapter Two).

### **Mutual Engagement**

Wenger (1998) suggests that members of a community of practice participate in a shared domain of interest. In a community of practice, shared competence is valued. Interactions between members are encouraged in order to distribute knowledge and solutions to problems. Members of the PDHPE community of practice have formed relationships around their engagement with and interest in the subject area. They participate in networking activities, professional development opportunities and employ the competence of members of overlapping communities of practice whose expertise they value (Chapter Six).

### **Joint Enterprise**

Members of a community of practice participate in joint tasks and activities and negotiate meaning of their practice through shared solutions. Their practice is communally negotiated. While the NSW BOS has mandated changes to state curriculum documents, that is, the Stage 6 PDHPE syllabus, the members of the community of practice negotiate the meaning of this syllabus in interactions with its members (Wenger, 1998) (Chapters Five, Six and Seven).

The community of practice of PDHPE HSC markers lies within a broader community of practice constituted by Years 7-12 PDHPE teachers, consultants, academics, NSW BOS personnel and pre-service teachers. Chapter Three Figure 3.1 PDHPE Communities of Practice clearly identifies these different and overlapping communities of practice.

Clark (1996) proposes that common ground presents the possibility of two tiers of a community of practice: a higher level constituted by members of an occupational cultural community (the broader PDHPE community of practice) who share like-lived experiences, knowledge, language and background; and a lower level of practitioners in a community of practice (PDHPE HSC markers and the legitimate peripheral participants; the pre-service teachers). While PDHPE HSC markers have multiple common interests, a specific common ground is the teaching of the NSW Stage 6 PDHPE syllabus and marking the associated HSC examination. Viewing NSW PDHPE

HSC markers as a community of practice allows for an examination of how members' understandings of the 1999 Stage 6 syllabus have been informed, constructed, negotiated and enacted in their everyday practices.

Like other communities of practice, the PDHPE community of practice has evolved in response to larger political, social, historical and institutional factors. These factors are explored in Chapter Two. Members of the PDHPE community of practice share an occupational history, initiate newcomers via an apprenticeship model, and engage in relationships aimed at improving their practice. Using the framework of a community of practice I explored how PDHPE teachers' professional identities are relational to their positioning in socio-cultural or human movement science *discourse clusters*.

I use the term discourse clusters to describe collections of practitioners who have taken up or rejected particular discourses relating to the NSW Stage 6 PDHPE syllabus. This assists to conceptualise the underpinning perspectives and practised pedagogies of groups and individuals within the broader PDHPE community of practice.

## **Exploring the Problem**

In order to investigate the nature and source of the tension between the syllabus discourses, I selected HSC markers as a sample of Stage 6 PDHPE teachers. It was at the HSC Marking Centre that teachers' option preferences were most clearly and overtly identifiable. The dominance of the human movement sciences perspective, for example, was evidenced by the sizeable number of HSC markers assigned to marking *Sports Medicine* and *Improving Performance* options.

HSC markers are in a unique position as they are "hand-picked" by the New South Wales Board of Studies (NSW BOS) based on their depth of knowledge of syllabus content and quite often hold leadership positions in schools that present them with opportunities to engage in dialogue around curriculum design, implementation and change. Through interviews with Stage 6 PDHPE HSC markers I was able to examine their selection of HSC options from the syllabus, and identify what differentiated those teachers who were engaging with the socio-cultural perspective.

In order for me to explore the professional identity of the PDHPE community, pre-service PDHPE teachers also formed part of the participant group. The inclusion of these participants would allow me to explore whether socialisation forces were at play in reproducing the dominant discourses being mobilised by PDHPE teachers, and

whether tertiary preparation courses were a potential space for creating change. In doing this, I could:

- examine whether the enculturation process was undertaken in schools or existed beforehand during tertiary preparation;
- expose the factors that constrain the creation of a dynamic learning community;
- identify the potential contexts and conditions that reward change; and
- present a framework for professional development that would assist PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 syllabus.

As such, the research aims to explore the following questions:

1. What factors influence the (re)production of the professional identity of the community of practice of PDHPE HSC markers?
2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?
3. What factors influence pre-service PDHPE teachers' syllabus selections?
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

## Significance

There is a wealth of research that examines curriculum change (Brooker, Macdonald & Hunter, 1998; Fullan, 1991, 1993; Hall, 1997; Hargreaves, 1994, 1998; Harris, 2003; Simpson, 2004; Van Rooy, 2000; Whelan, 1995). This literature recognises that curriculum is often created as *teacher proof* and has the potential to position teachers as passive change agents or recipients of state-mandated policy. Much of the research documents the elements that *inhibit* curriculum change: the amount and nature of change, teacher uncertainty of new knowledge, lack of implementation time, inadequacy of resources, implications for increased teacher workloads, marginalised teacher participation in curriculum construction, and insufficient professional development opportunities (Ayers, Beechey & McCormick, 2002; Beavis, 2001; Dinan-Thompson, 2001, 2002; Edwards, 2000; Harris, 2001, 2003; Kirk & Macdonald, 2001; Olson, 2002; Reynolds, 2001). While this literature makes recommendations for adopting curriculum change, given the unique history of the community of NSW PDHPE teachers, and previously PE teachers (Kelly & Kirk, 1986), there is a need to investigate how PDHPE teachers' professional identity influences their responses to the 1999 PDHPE syllabus. Therefore, as its core focus, this research explores the relationship

between the professional identity of NSW pre-service PDHPE teachers and PDHPE HSC markers and their engagement with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus, as demonstrated by their selections of HSC syllabus options.

## **Thesis Overview**

In order to identify the discourses being mobilised in the broader PDHPE community, I have gathered data by surveying both pre- and in-service PDHPE teachers, interviewed purposively selected PDHPE HSC markers and analysed NSW BOS and educational system professional development documents. These data build a picture or profile of the ways in which the PDHPE community operates, how professional dialogues are positioned in relation to the discourses being taken up or rejected, and how the socio-political history of the community influences teachers' responses to curriculum change. In doing this, I highlight those experiences and opportunities that differentiate those teachers who have engaged with curriculum change.

This thesis consists of eight chapters that explore the characteristics of members of the broader PDHPE community of practice; including its centripetal and peripheral members, and their engagement with the 1999 Stage 6 PDHPE syllabus.

Following this introduction, Chapter Two provides a brief history of the KLA and highlights how the reconfiguring of school subjects has resulted in struggles of power, and for calls to renegotiate PDHPE teachers' professional identity. Through an examination of professional development opportunities I examine how the 1999 Stage 6 PDHPE syllabus was "sold" to PDHPE teachers. This chapter provides a context for understanding how the syllabus was introduced and has been taken up by PDHPE teachers.

Chapter Three presents the conceptual framework of a community of practice, as explained by both its originators, Lave and Wenger (1991) and other more recent applications of the framework in business, industry and educational settings. The chapter further identifies the characteristics which define a community of practice and explores the conditions or principles that are conducive to supporting and sustaining communities of practice.

Chapter Four describes and justifies the research design and discusses methodological, data collection and analysis techniques. In this chapter, I present my position as a participant researcher and explore issues of validity and ethical practice, in light of this role.

Chapter Five presents the findings of a survey of the community of practice of Stage 6 PDHPE HSC markers. The markers were surveyed in 1998, the year before the revised Stage 6 syllabus was released by the NSW BOS. These findings were analysed using the statistical procedures of frequency tables, Chi Square and Chi Square Automatic Interaction Detector (CHAID). This analysis assisted in preparing a representative professional identity of the sample of HSC markers and determines the factors that influenced their HSC Option selections.

Chapter Six details the findings of interviews with 25 purposively selected Stage 6 PDHPE HSC markers. The interviews assist in identifying discourse clusters of HSC markers, and examine the characteristics that differentiate those markers who have engaged with the discursive shift of the 1999 Stage 6 PDHPE syllabus.

Chapter Seven examines the representative professional identity of a sample of pre-service PDHPE teachers and investigates their HSC Option selections. The chapter compares the discourse clustering of pre-service teachers with Stage 6 PDHPE HSC markers and explores whether pre-service teachers' tertiary preparation assists in reproducing or transforming the professional identity of the broader PDHPE community of practice.

The findings presented in these result chapters are discussed with reference to the literature of communities of practice, teacher socialisation and the evolution of both the PDHPE KLA and the Stage 6 PDHPE syllabus.

Chapter Eight discusses the implications of mapping the professional identity of the PDHPE community of practice, and examines how identity influences the syllabus selections of both PDHPE HSC markers and PDHPE pre-service teachers. Implications for the professional development of PDHPE teachers and tertiary preparation of pre-service PDHPE teachers are proposed to assist engagement with changes in the 1999 Stage 6 PDHPE syllabus.

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## Chapter Two

### Who We Are, Where We Come From: Struggles of Power and Identity

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The purpose of this chapter is to provide an historical context for the development of the Stage 6 syllabus and explain how the conflation of discrete disciplines into a Key Learning Area (KLA) has challenged the professional identity of NSW PDHPE teachers. This chapter will briefly outline who is attracted to teaching PDHPE, how these teachers are socialised into the broader PDHPE community of practice, and what constitutes their pre-service tertiary preparation. This will assist in explaining “who” comprises the broader PDHPE community of practice and “what” forms the content of the subject area.

In this chapter the structure of the 1990, 1994 and 1999 Stage 6 PDHPE syllabuses will be outlined. The perspectives of the 1999 syllabus will be categorised as either human movement sciences or socio-cultural. This classification will enable an examination of the discourses being privileged within the communities of practice of PDHPE HSC markers and pre-service teachers.

By examining the professional development opportunities provided for PDHPE teachers, I will examine how the 1999 Stage 6 PDHPE syllabus was *sold* to teachers, and how six years on, teachers are engaging with the socio-cultural perspective. By doing this I aim to contextualise the introduction and uptake of a socio-cultural perspective of health and physical activity as evidenced by option selections in the NSW HSC examination.

In this chapter I further aim to explain how my roles in multiple PDHPE communities of practice provide an insight into Stage 6 PDHPE syllabus design and teachers’ selections of option content in NSW classrooms.

#### **Ways of Thinking about PE**

The history of PE has been fraught with tension and conflict. These struggles have centred on the “nature of essential or ‘worthwhile’ knowledge in physical education, the educational status of physical education as a school (or college/university) subject, and the place of physical activity within an examinable ‘academic’ subject” (Fitzclarence & Tinning, 1990, p. 169).

Due to its practical nature, the subject has had difficulty in gaining acceptance within the prevailing competitive academic curriculum in schools and has been accorded a subordinate position in relation to other subjects (Kirk, 1990; Macdonald 1992; Sparkes, Templin & Schempp, 1990; Wright, 1996). In an effort to reposition itself, to gain respect from executive staff and professional peers and therefore benefit from the organisational and financial rewards of increased power in the micro-political context of schools, the subject adopted a scientific functionalistic approach (Sparkes, 1990) aligning itself with the academically-valued human sciences. This masculine discourse of technical rationality has historically pervaded PE culture, dominating knowledge production and reproduction, institution decision making and professional associations (Hutchins & Macdonald, 1993). In order to be viewed as “high status knowledge” (Goodson, 1988, p. 9) PE, as a subject which focuses on bodily practices, has aligned itself with the hard sciences (physiology, physics and medicine) and has become an examinable subject at the post-compulsory schooling level.

As PE adopted a biomedical, scientific approach, areas of study such as sociology have been viewed as less favoured, feminine, impressionistic and subjective. They were regarded as lacking the alleged precision and exactness of those methods employed to pursue knowledge related to the human movement sciences (Kirk & Macdonald, 2001; Wright, 1996).

### **Key Learning Areas in Australia**

In 1989 the newly formed Australian Education Council (AEC) developed the Hobart Declaration on Schooling – National Goals (AEC, 1989). This declaration stated that secondary school subjects were to be reconceptualised into new curriculum organising units. Nationally, these constituted eight Key Learning Areas (KLAs), one of which was *Health* (AEC, 1989). However, in NSW, there was a considerable lack of understanding by the then Minister of Education, Terry Metherell, regarding the nature of the disciplines which constituted the KLA. As highlighted by the Health Studies’ Head Teachers’ Council of NSW, Metherell interchangeably used the terminology of *Health*, *Health Education* and *Health Studies* to describe the KLA and made no reference to the inclusion of PE. This presented issues in regard to the nature of the KLA and the NSW Government’s misunderstandings of the breadth of the KLA’s inclusions. In NSW, Health Education was already aligned with PE in the compulsory years of schooling, being taught by the same specialists. Furthermore, tertiary preparation courses at the University of Sydney, Sydney and Wollongong Teachers’ Colleges had offered teachers studies of Health and PE as early as the 1950s (Pickup, M., Health Lecturer, University of Sydney, personal communication, 2006).

The Australian Council for Health, Physical Education and Recreation (ACHPER) and the Health Studies' Head Teachers' Council of NSW recommended that the KLA include the titles of Health and Physical Education as these were recognition of the professional field as it was known both nationally and internationally.

In April 1993, the national KLA name was altered to *Health and Physical Education*; a title resulting from political lobbying by key interest groups such as the Confederation of Sport, ACHPER and the Australian Education Council's Curriculum and Assessment Committee (Irwin, 1993). The resultant KLA title reassured stakeholders that PE firstly, was not subsumed by Health, secondly not valued only by its ability to contribute toward improved health and thirdly, was not in danger of disappearing from the national curriculum altogether.

In NSW the PDHPE KLA came into being as a result of the Carrick Report (1989) commissioned by Greiner's Coalition Government and called for "the vigorous promotion of excellence and the vigorous promotion of equity" in NSW schools (NSW Ministry of Education and Youth Affairs, 1989, p. 6). Until 1992 PE in NSW was taught using the 1965 syllabus; a brief document outlining the areas of games, dance, gymnastics, track and field and aquatics as content areas. Health Education was an optional area of study until the Carrick Report when the formation of KLAs resulted in an inaugural Years 7-10 PDHPE syllabus being released in 1991 for implementation in schools from 1992.

In Australian states, the naming of the KLA and included subjects range from Health and Physical Education (HPE) represented as an integrated curriculum to Physical Education (PE), and Health Education (HE). The naming of the KLA is in itself, a reflection of the socio-political, historical and educational influences on the previously discrete subjects in their different contexts. Tinning, et al. (2001) suggest that "the conflation of Health and Physical Education into one KLA has clearly marked the emergence of a formal alliance between these traditionally discrete subject areas" (p. 181).

Understandably there was much debate in all states around the naming of the KLA, as various stakeholders had vested interests in how *their* subject would be represented under the new KLA umbrella. The nomenclature would represent the professional identity of a range of practitioners who would teach in the KLA. Not only would the naming of the KLA affect their professional identity but this reconfiguration of the disciplines would determine teachers' status, others' perceptions of the value of their subject and the distribution of resources (Dinan-Thompson, 2002).



In other Australian states, the KLA framework significantly influenced the development of the HPE curriculum. Victorian and Queensland syllabuses were fashioned from the National *Statement* and *Profile* for each of the KLAs. *Statements* acted as an outline to describe each KLA and *Profiles* were a scaffold to direct syllabus writers as to *what* was to be taught and *how* it was to be taught, assessed and reported (Glover, 2001). However, the NSW Stage 6 PDHPE syllabus did not draw on the National Statements and Profiles as the syllabus was already released before the introduction of the Statements and Profiles in 1994.

The first meeting of the NSW Years 11-12 Health Studies (later PDHPE) syllabus committee was held in March 1989. The syllabus committee was constituted by a small group of teachers, tertiary educators and the then Department of Education Studies' Directorate staff. Several working papers were drafted to inform the syllabus design and three draft documents titled *Health Studies 11-12 Syllabus Committee: Brief for the Writing Team* were produced. After much political lobbying by ACHPER and the Health Studies' Head Teachers' Council of NSW in 1990, the first NSW 2 Unit PDHPE syllabus was released by the BOS for implementation from 1991. The design and development of this syllabus was in place prior to the implementation of a National Curriculum, and the continuing debate around the place of Health and Physical Education in one KLA.

In other Australian states, the resulting syllabus documents brought together quite disparate subjects with content knowledge such as health promotion, biomechanics, sports medicine, sex education, drug education, body systems, fitness, leisure, outdoor recreation, nutrition, sport and games (Brooker & Clennett, 2006; Dinan-Thompson, 2001, 2002; Macdonald, et al., 2002). This content knowledge had been historically staffed in secondary schools by PE teachers, home economics teachers, science teachers, outdoor educators, and teachers responsible for student welfare and religion. While this amalgamation of content knowledge provided potential opportunities to shatter the balkanised lines of subjects (Macdonald & Glover, 1997) and adopt cross-curricula perspectives, it also gave rise to struggles of power, contestation and compromise between subject communities (Macdonald, et al., 2002). For teachers of PE, whose vested interests and professional identities were forged around the notion of teaching physical activity and fitness, the "expectation to teach personal development and health education might be a serious challenge to their notion of what their job as a HPE teacher should be" (Tinning, 2004, p. 243).

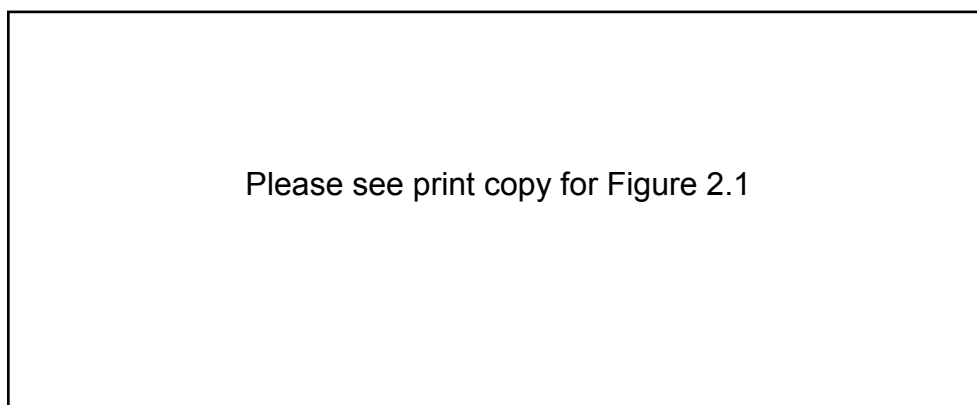
In NSW, for those who had defined themselves as PE teachers, the introduction of the KLA may have posed challenges to their professional identity, repertoire of content

knowledge and personal interests. Although health education had been established much more than in other states their identities have been aligned with their expertise, values, personal interests, and they derived professional and personal satisfaction and rewards from engaging with subject matter with which they were familiar (Tinning et al., 2001). Without sufficient commitment to change, and mechanisms to support the acquisition of new knowledge, Sparkes (1990) suggests that teachers will protect their personal investments. Supporting this argument, Glover and Macdonald's (1997) research in Queensland identified that some pre-service and in-service HPE teachers resisted the integrated nature of the HPE learning area. This resistance was primarily attributed to teachers' lack of understanding of personal development and a socially-critical perspective of health and physical activity. Given the major shift to a socio-cultural perspective of health and physical activity in the 1999 Stage 6 PDHPE syllabus, it is not surprising that NSW PDHPE teachers might share these feelings of resistance.

### **Designing the 1990 Stage 6 PDHPE Syllabus**

In 1990, the first Stage 6 PDHPE syllabus was released for implementation in Year 11 in 1991 and the inaugural HSC examination in 1992. In the absence of critical pedagogical literature surrounding health, the 1990 syllabus drew upon the privileged masculine discourses of PE informed by science and rationality and an individual or "healthism" (Kirk & Colquhoun, 1989) approach to health. This approach to health education assumed that individuals were responsible for their own health decisions and the curriculum was designed around skilling students to become rational informed decision makers. Sparkes (1990) defines healthism as "a belief that the attainment and maintenance of health is a self-evident good which accepts unquestionably the link between exercise, fitness and health" (p. 9). Including the options *Human Sexuality*, *Community Health Issues* and *Two Social Health Issues* in the 1990 syllabus appeared to address health from a non-biophysical perspective. However, within these options there was reference to "physiological stages of growth and development" (NSW BOS, 1990, p. 28), and "individual implications of drug use" (NSW BOS, 1990, p. 40); statements clearly representing a healthism approach. It appeared from the option description however, that *Community Health Issues* was indeed approaching health from a "community settings approach" (NSW BOS, 1990, p. 31) and addressing the "responsibility for health problems of the community" by examining "government, private sector and individual responsibilities" (NSW BOS, 1990, p. 33). Notably, however, this option was least preferred by HSC candidates. Chapter Five provides a detailed statistical analysis of HSC option selections.

As the existing (1991) NSW Years 7-10<sup>6</sup> PDHPE syllabus was constituted by learning *in* the physical, the introduction of the Stage 6 PDHPE syllabus signalled the need to investigate learning *about* the physical as well, in the form of content such as anatomy, exercise physiology, biomechanics, and skill acquisition. There was no real challenge by either teachers or lobby groups to this human movement science perspective within the first senior PDHPE syllabus. Despite this human movement oriented perspective, there was little evidence of the opportunity for students to engage in practical activities through the study of this syllabus. This could perhaps be attributed to the perceived need for the syllabus to establish its credibility as an examinable subject that was open to public scrutiny and surveillance by parents, the community and political forces and defend its status as a subject worthwhile of study at HSC level. Figure 2.1 represents the 1990 PDHPE syllabus.



(Source: NSW BOS, 1990, p. 9)

*Figure 2.1.* 1990 PDHPE syllabus

In 1994, in accordance with the *HSC Pathways policy*<sup>7</sup> (NSW BOS, 1992), the PDHPE syllabus was divided into two distinct courses: Preliminary and HSC. While the syllabus content and number of core modules and option modules did not alter, their availability in each course did. Options 2, 3, 4, 7 and 9 could only be studied for the HSC course, while option 5 First Aid and Sports Injuries could be selected in either the Preliminary or HSC course: an indicator of the privileging of the option content. Figure 2.2 outlines the syllabus' realignment in response to the *HSC Pathways Policy*.

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<sup>6</sup> Years 7-10 represents the compulsory years of schooling in NSW

<sup>7</sup> The HSC Pathways Policy was the "opening up of new opportunities for students by providing more equitable and flexible access to the HSC" (NSW BOS, 1995, p. 1).

Please see print copy for Figure 2.2

(Source: NSW BOS, 1994, p. 14)

Figure 2.2. 1994 PDHPE syllabus

### **A Call for Change – The 1999 Stage 6 PDHPE Syllabus**

The design of the 1999 NSW Stage 6 PDHPE syllabus was influenced by a myriad of socio-historical factors and key policy agents. In March 1995, the NSW Minister of Education, John Aquilina, announced a review of the Higher School Certificate (HSC). This review was undertaken by the Australian Council of Educational Research (ACER) Director, Dr Barry McGaw and produced a Green Paper entitled *Shaping Their Future: Options for Reform of the Higher School Certificate*. The Government's responding White Paper, *Securing Their Future* (NSW Government, 1997) included key recommendations regarding curriculum reform of the HSC. These recommendations included eliminating the overlap between subjects, justifying the need for each subject, increasing the level of academic rigour of subjects and the development of new syllabuses. Responding to the necessity for an investigation of HSC curriculum models, the Board of Studies (BOS), the statutory body responsible for curriculum development in NSW, implemented a three stage process. These stages were:

- evaluating the current HSC syllabuses against specific criteria and advice outlined in *Securing Their Future*;
- preparing syllabus writing briefs for consultation with the interested educational institutions and individuals; and
- designing new syllabuses during 1999 for implementation in 2000 and first examination in 2001.

As a result of the BOS HSC Subject Evaluation report findings, syllabuses were to be revised, reorganised or possibly removed from the State curriculum. In order to ascertain the degree and nature of revision of syllabuses, the BOS' recommendations were to be based on research including:

a curriculum model feasibility study; a student choice and timetabling trial; an analysis of examination data using the latest psychometric models; and an extensive evaluation of existing Stage 6 subjects. (NSW BOS, 1998c, p. 1)

The *Securing Their Future* (NSW Government, 1997) document and associated political activity provided the opportunity to critically reflect on the existing PDHPE current pedagogical, theoretical and epistemological literature in the KLA. The NSW BOS PDHPE Inspector used this opportunity to move the syllabus forward in relation to thinking about Health and PE in new and other ways from the prevailing dominant discourses (Hewitt, P., NSW BOS PDHPE Inspector, personal communication, 1998).

In the initial stage of the evaluation process, the existing PDHPE syllabus was reviewed in the context of international and national literature, curriculum design and pedagogical practice. This reflected the government's policy in that "the curriculum for each subject should be of the highest quality and developed within a context of research, expert advice, and best national and international practice" (NSW Government 1997, p. 7). Complementary to this, the NSW BOS PDHPE Inspector voiced a commitment to and interest in doing things differently and called for a critique of the dominant literature surrounding health and physical education (Hewitt, P., NSW BOS PDHPE Inspector, personal communication, 1998).

As a further element of the review, senior syllabuses in all Australian states and territories were examined. The review of curriculum practice revealed that a variety of curriculum options were offered in the field of Health and PE. In different states, these included courses relating to Outdoor Education, Health Studies, Personal Development, Human Relations Education, Life Skills Education, Home Economics, Sports Science and PE. Furthermore, an examination of the curriculum practice from New Zealand, United States, United Kingdom and Canada revealed that PE and Health "is not always featured in the post compulsory curriculum and in many cases included as a general experience elective" (NSW BOS, 1998a, p. 17).

Predominantly PE and Health were presented as separate curriculum documents rather than as an integrated course for student study. In NSW however, there was a solid investment in an integrated curriculum. This integrated approach to the KLA informed the writing brief for the NSW 1999 Stage 6 PDHPE syllabus (NSW BOS, 1998c).

A literature review was commissioned to inform the Writing Brief for the 1999 Stage 6 PDHPE syllabus. In summarising the state of the field the following considerations

were reached: the techno-rational aspects of movement had historically dominated the field; they covered learning *in* and learning *about* PE; and these narrow interpretations were being challenged by key academics as limiting the focus of PE. The contemporary literature (Kirk 1997; Macdonald, 2003; Tinning & Fitzclarence 1994) advocated the need for PE curriculum to be relevant to young people in a postmodern world and to address the connection between bodies, movement and identity. Tinning and Fitzclarence (1992) conceptualised senior study in PE as “more suited to an integrated understanding of physical education which clearly locates physical education as a cultural practice which cannot be understood through the lenses of the biophysical sciences” (as cited in NSW BOS, 1998a, p. 10). The shift to a broader, socio-cultural notion of PE was recommended in the review of literature, as it would allow “students to become critical consumers of physical activity by exploring the connections between sport, physical activity, the body and society” (NSW BOS, 1998a, p. 11). Furthermore, the *HSC Subject Evaluation Report for PDHPE* (NSW BOS, 1998b) recommended that the curriculum revision include “a socio-cultural perspective and involve new understandings about the social construction of gender, health and physical activity” (p. 29). This resulted in a PDHPE syllabus Writing Brief that called for a Stage 6 syllabus that was different. Such a syllabus had the potential to be highly provocative to the PDHPE community of practice of teachers: a syllabus which would certainly challenge their current knowledge, practice and identity.

## **The Writing Brief and Draft Syllabus**

The *HSC Subject Evaluation Report for PDHPE* (NSW BOS, 1998b) addressed the subject's feasibility in relation to:

- the growth of candidature and evidence of demand for the subject;
- identification of resultant use of knowledge gained from students studying the subject;
- evidence of availability of suitably qualified teachers;
- current perceptions of the subject,;
- evidence of suitably qualified teachers and available school resources;
- nature of the subject and course content; and
- the relationship of PDHPE to existing courses.

The Stage 6 PDHPE syllabus evaluation report effectively reflected *Securing Their Future's* (NSW Government, 1997) criteria for Higher School Certificate Courses and proceeded to the next phase of preparing a syllabus writing brief.

The next phase in the process of HSC reform was for syllabus writing teams to prepare a draft writing brief for each syllabus. The purpose of the writing brief was to act as a blueprint for syllabus development, by prescribing philosophical, structural and content guidelines for members of the syllabus writing team. The NSW BOS 1999 Stage 6 PDHPE syllabus writing team was constituted by a NSW HPE academic, the Chief Education Officer PDHPE from the Department of Education and Training and the NSW BOS PDHPE Inspector. Key academics and other institutional personnel with specific KLA expertise were targeted as critical friends and contributing authors.

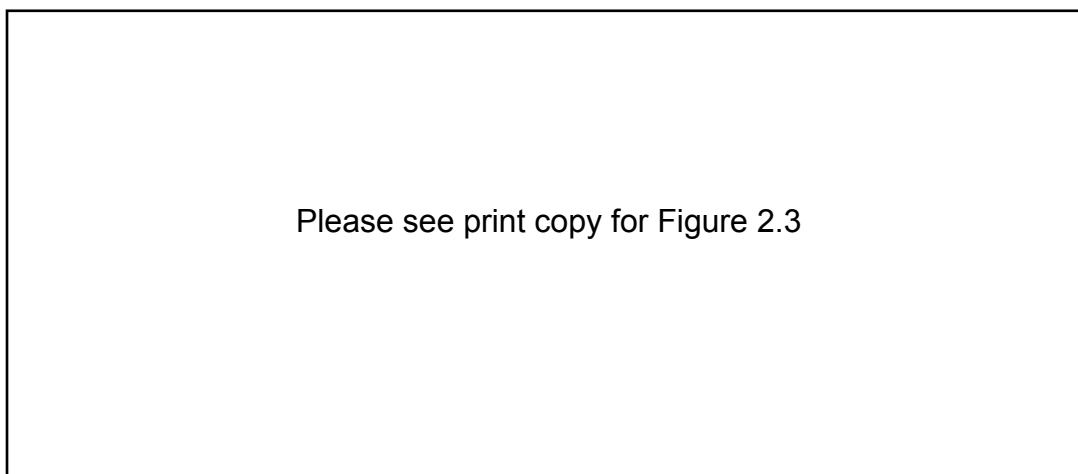
The NSW BOS Syllabus Advisory Committee, key groups and individuals within the community of practice were invited to provide feedback on both the draft writing brief and the draft syllabus. A consultative report was prepared from 109 written responses to these drafts. The profile of submissions included 85 individual responses and 24 responses from institutions and groups. These institutions and groups included all three school sectors, NSW Government Departments, academics and related health agencies.

Recommendations from all responses were analysed by the NSW BOS Inspector and Writing Team and assisted in modifying both the structure and content of the new syllabus. The majority of comments concerning the draft syllabus, related to the structure of the syllabus, the amount and specific nature of content, the scope for practical experiences and the suitability and relevance of proposed options. In support of the critical literature, academic and professional associations' responses highlighted the need for contemporary perspectives of health and physical activity to be addressed. Few NSW PDHPE teachers expressed their concern for the inclusion, or suggested that they did not understand a socio-cultural perspective of health and physical activity. It appeared from the consultative process that the community of practice of PDHPE teachers was supportive of its inclusion in the 1999 Stage 6 PDHPE syllabus. The critique offered by NSW academics, however, called for a further, more detailed and explicit inclusion of a socio-cultural perspective into all aspects of the syllabus. For example, an academic who publicly advocated for the inclusion of a socio-cultural perspective into the 1999 Stage 6 syllabus wrote:

I welcome your identification of issues around the 'inclusion of a socio-cultural perspective and new understandings about the social construction of gender, health and physical activity' and the need for 'a focus on the skills of research and critical analysis'.... I am deeply concerned, however, at the absence of any reference to socio-cultural perspectives in relation to movement, physical activity and sport after the initial reference on page 6.... It seems clear that the

socio-cultural perspective only applies to health and that physical activity and sport can continue to be studied solely from a human movement sciences perspective..... I ask you - how will a socio-cultural analysis be taken up in coaching, human movement analysis, enhancing performance, health, fitness and physical activity in ways which do not exacerbate perceptions of gender or cultural differences which describe girls and people from ethnic minorities as lacking, as problems? Where will the social analysis of sport itself happen? My experience as a university lecturer suggests that integration means absence or at best a transitory and token reference. (Personal communication with NSW BOS PDHPE Inspector Hewitt, P., and Wright, J., HPE Senior Lecturer, University of Wollongong, October 7<sup>th</sup>, 1998)

This widespread consultation process provided the writing team with feedback in order to modify the draft syllabus and enable the final syllabus to be submitted for approval to the Board Curriculum Committee (BCC), and the Minister for Education. The NSW BOS was mindful of the criteria against which the new syllabuses would be assessed and as a result, actioned many of the recommendations from this consultative process to strengthen the draft syllabus. A socio-cultural perspective of physical activity was included in Preliminary Core 1 *Meanings of Health and Physical Activity* and HSC Option 2 *Sport and Physical Activity in Australian Society*. The resultant 1999 Stage 6 PDHPE syllabus structure is outlined in Figure 2.3.



(Source: NSW BOS, 1999a, p. 10)

Key: **Shaded cores and options** represent inclusions of a socio-cultural perspective of health and/or physical activity

NB: These classifications were ascertained by the author of this thesis and based on the syllabus descriptions of each core and option.

*Figure 2.3.* 1999 Stage 6 PDHPE syllabus

Given a cursory glance, the 1999 Stage 6 syllabus HSC options appeared to closely mirror those in the previous syllabus, however, there was an *explicit* socio-cultural



perspective incorporated into some of the cores and options of the 1999 syllabus. The syllabus rationale highlights this by stating:

This syllabus also includes a detailed study of movement and physical activity. The emphasis is on understanding how the body moves and the socio-cultural influences that regulate movement. Scientific aspects to be studied include anatomy, physiology, biomechanics and skill acquisition. Students also think critically about aspects of history, economics, gender and media as they impact on patterns of participation in physical activity and the ways that movement is valued. These areas of study prepare students to be informed participants in movement culture, skilled, intelligent performers and analysts of movement. (NSW BOS, 1999a, p. 7)

The NSW BOS document *An Introduction to PDHPE Stage 6 in the New HSC* (NSW BOS, 1999b) identified the inclusion of a different way of thinking about health and physical activity by stating:

The syllabus reflects current thinking in the areas of health and physical activity. The rationale of the course reflects the explicit inclusion of a social view of health and physical activity to complement scientific and biological dimensions. (NSW BOS, 1999b, p. 1)

Further evidence of this inclusion of a socio-cultural perspective of health and physical activity is clearly identifiable in the HSC options *The Health of Young People, Sport and Physical Activity in Australian Society*, and *Equity and Health*. For example, in the option *Equity and Health* the option description states:

This option module is concerned with the achievement of health for all and the actions necessary to realise this goal. In this module, students build upon their understanding of **equity and social justice** introduced in the core module Health Priorities in Australia. They examine the **populations that experience health inequities** and critically analyse **social, cultural, economic and political factors** that impact on the health status of these populations. Students think critically in order to discern actions that work towards **reducing the gap in health status between populations**. As the major focus of this module, students conduct an examination of **two populations experiencing significant health inequities**: Aboriginal and Torres Strait Island people and people living in rural and remote communities. (NSW BOS, 1999a, p. 83)

While in *Sport and Physical Activity in Australian Society* students explore the following focus questions:

- How have meanings about sport and physical activity changed over time?
- What is the relationship between sport and national identity?
- How does the mass media contribute to people's understanding, values and beliefs about sport?
- How does the meaning of physical activity and sport vary for different cultural groups?
- What are the relationships between sport and physical activity and gender and sexuality? (NSW BOS, 1999a, p. 66)

### **A Socio-cultural View of Health**

The review of literature that informed the 1999 syllabus design also analysed the historical and contemporary approaches to health education and health promotion. The internationally-respected socio-cultural perspective of health (World Health Organisation 1986; 1997) was presented as a framework for developing health education. This perspective recognises the interaction and interdependence of the physical, social, cultural, political and economic factors that influence an individual's and a community's health status. This literature had been a part of significant Australian PE and Health academics' professional dialogues and research in recent years, and advocated a socio-cultural view of health as well as a critical pedagogy. The socio-cultural view of health was a challenge to the existing individual view of health as it advocated the need for a broader perspective that was inclusive and incorporated the principles of diversity and social justice. On the basis of the literature review the need for health education curriculum to be based on an ideological position that embraces "social justice, the creation of supportive environments and an understanding of diversity" (NSW BOS, 1998a, p. 9) was recommended. This required young people to develop skills relating to health literacy, empowerment, and advocacy and to participate in inclusive learning situations.

For the first time since the inception of PDHPE as an HSC examinable subject in 1992, the traditional discourses of both Physical and Health Education were being challenged by significant Australian literature (Macdonald, 2001, 2003, 2004; Macdonald, et al., 2002; Tinning, 1996, 2004; Tinning & Fitzclarence, 1992, 1994; Tinning, Kirk & Evans, 1993) and recent developments in international health (Jakarta Declaration on Leading Health Promotion into the 21<sup>st</sup> Century, 1997). This social and cultural

reconceptualising of the terms physical education and health was incorporated into the writing brief for the 1999 Stage 6 PDHPE syllabus.

### ***Selling the 1999 Stage 6 PDHPE Syllabus: How New was New?***

Maintaining teacher confidence in engaging with the 1999 syllabus was paramount for both the NSW BOS and the three educational systems/sectors. In his Launch Address to the PDHPE community of practice, the NSW BOS PDHPE Inspector *sold* the “sameness” of the 1999 Stage 6 PDHPE syllabus and the previous syllabus with comments such as:

We are still doing community health. We are still doing personal health. We are still doing the factors that affect performance, skill development and so forth. So from one sense the syllabus does remain the same. (Hewitt, 1999)

Don't rock the boat too much, because we are pretty comfortable with what's happening. It's a quite successful course by any measure .... This is a course that's been growing over time so plenty has been happening right. So keep that in mind when you do make changes. (Hewitt, 1999)

Further to this, his mention of the syllabus changes were brief and were described as “enhancements or improvements” (Hewitt, 1999) rather than significant modifications. Excerpts from his Launch Address suggest that this “was not such a big change, and you'll be OK” (Hewitt, 1999). The shift to include a socio-cultural perspective of health and physical activity was presented as a call to “reflect currency by adopting contemporary understandings in this learning area” and “including a social view of health which would complement our scientific understandings” (Hewitt, 1999).

To support teachers' confidence and comfort with the new syllabus, the NSW BOS document *An Introduction to PDHPE Stage 6 in the New HSC document* (NSW BOS, 1999b) supported Hewitt's Launch Address by suggesting that the new syllabus could be viewed as being “fundamentally unchanged” (p. 1), and that “much of the course will be familiar to teachers” (p. 1). While the NSW BOS document did recognise the differences between the 1994 and 1999 syllabuses, it presented the changes in language that was both wisely chosen and presented a positive and familiar face to PDHPE teachers. For example, “What is similar?” “What are the overall improvements?” and “a number of changes have been made in order to build upon the success of the current syllabus. These enhancements ...” (NSW BOS, 1999b, p. 1). These measures were employed to assist in reassuring teachers of their expertise and knowledge in the

subject matter and rallying them to engage with the syllabus changes (Hewitt, P., NSW BOS PDHPE Inspector, personal communication, 1999).

The NSW BOS PDHPE Inspector did however introduce the notion that PDHPE teachers may need to learn new content and language in order to engage with the 1999 syllabus. In doing so he emphasised the minimal degree of change needed. He stated that:

Technical language and challenging concepts. Might I say that this is largely in the health domain ... The sort of scientific jargon that might appear in the PE area is understood by the majority of people. I guess it's the function of our training. But in the health area where things are a little bit new it just pushes the comfort zone a little bit. (Hewitt, 1999)

Reinforcing teacher familiarity and confidence with the 1999 syllabus changes was indeed essential if PDHPE teachers were to engage in systemic professional development opportunities aimed at developing their understandings of a socio-cultural perspective of health and physical activity.

### **The Travelling Road Show: A Steep Learning Curve?**

As the syllabus was released in 1999 and the first Preliminary cohort of students was to commence study in 2000, teachers participated in both formal system-based professional development opportunities and informal networking experiences with colleagues aimed at understanding the new syllabus inclusions. These workshops were a collaborative venture of the Association of Independent Schools, the Catholic Education Commission, and the Department of Education and Training. Key academics, those who had publicly advocated for the inclusion of a socio-cultural perspective to be included in the 1999 syllabus, were invited by the NSW educational systems to design two professional development workshops *New Meanings of Health* and *Syllabus Processes*. These workshops were implemented by targeted academics, PDHPE consultants and experienced 1994 syllabus PDHPE teachers at numerous venues throughout NSW. These formal workshops essentially provided teachers with the opportunity to learn about the socio-cultural perspective of the 1999 syllabus.

The workshop *New Meanings of Health* included a critique of the epidemiological approach to health and invited teachers to define “health as a social construct” (NSW Department of Education and Training Curriculum Support Directorate, [NSW DETCSD] 1999, Handout 4), and “unpack a socio-cultural perspective” (NSW DETCSD, 1999, Handouts 5-11). Workshop activities provided teachers with opportunities to *test* their new understandings of a socio-cultural perspective in groups with other PDHPE

teachers. Lastly, the workshop required teachers to identify examples of a “socio-cultural perspective in the syllabus” (NSW DETCSD, 1999, Handout 12). This initiation into new ways of thinking about health was the principal professional development experience offered to NSW PDHPE teachers during 1999. There was no professional development offered that assisted teachers to engage with new ways of thinking about physical activity.

### **PDHPE Teachers’ Association Annual Conference 2000**

The formal process of professional development continued as other professional bodies offered support for the PDHPE community of practice. The PDHPE Teachers’ Association designed its 2000 Annual Conference agenda around the Stage 6 PDHPE syllabus and invited members of the PDHPE community of practice to present workshops on the syllabus content and pedagogies (Booth, A., President PDHPETA, personal communication, 2000). The selection of presentations at the conference provided the community of practice with opportunities to participate at different levels of commitment to the socio-cultural perspective. Several workshops were offered that specifically dealt with core and option modules which included a socio-cultural perspective of health and physical activity, while other workshops dealt with the more accepted and less-confronting topics related to *Sports Medicine* and *Improving Performance* (PDHPETA Conference Program, 2000). Statistics outlining the selection of conference workshops by attendees are presented in Chapter Five.

### **Recruitment and Socialisation of Pre-service PDHPE Teachers: Business as Usual?**

Physical Education (PE) <sup>8</sup> teachers through a range of professional experiences undergo a process of occupational socialisation (Hutchins & Macdonald, 1993). Teachers experience this socialisation in various contexts ranging from their initial schooling, tertiary preparation and professional development arenas, to their experiences as viewers of prevailing practice modelled by supervising teachers and colleagues during field experience and as participants in PE teaching culture.

Socialisation into a profession is a complex process. As Lawson (1986) suggests this process involves individuals internalising the dominant rules, values and meanings associated with the sub-culture of their profession. The early literature (Merton & Kitt, 1950) describes occupational socialisation as a relatively passive process in which a group imposes pressures on new members to accommodate their attitudes, behaviours

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<sup>8</sup> In this section I have referred to the PE teacher as little literature is available that points to the HPE or PDHPE teacher and their professional socialisation.

and affiliations. In the later literature, this level of passivity has, however, been questioned. Nias (1986) claims that the role of the individual is an active one, in which individuals seek to preserve within the school and the profession their sense of personal identity. Thus we are invited to consider occupational socialisation as a proactive and voluntary process. Lave and Wenger (1991) would endorse this view, as they contend that legitimate peripheral participants in a community of practice, those new to the profession or *learning the ropes of the practice*, adopt more than an observational lookout but rather must participate in order to learn the culture of their practice.

Lawson and Stroot (1993) propose three phases of socialisation: anticipatory socialisation, professional socialisation, and organisational socialisation. Lortie (1975) refers to the initial stage (anticipatory socialisation) of learning about the profession as an “apprenticeship of observation”. Similarly, Lave and Wenger’s (1991) theory of communities of practice originated from observing situated case studies of apprentices. Both theorists suggest that newcomers learn the practice of the profession by participating in its activities. For prospective PE pre-service teachers, however, much is learnt about the occupational community even before participating in it. Many prospective PE teachers have extensive backgrounds in sport and physical activity prior to pre-service training (Doolittle, Dodds & Placek, 1993).

In the second phase of professional socialisation pre-service teachers “gradually engage in a range of meaningful social and personal experiences within and beyond Physical Education Teacher Education (PETE)<sup>9</sup>, students become immersed in the language, traditions, responsibilities, knowledge bases, practices and shared values of the profession” (Tinning, Macdonald, Wright & Hickey, 2001, p. 80). Wenger (1998) would argue that this phase of socialisation could be described as legitimate peripheral participation: a phase in which newcomers to the practice forge a professional identity.

Thirdly, the phase of organisational socialisation invites the in-service teacher to adopt the social structures of their school, system and profession. For the PE teacher, what constitutes the KLA and how it should be taught forms part of this socialisation process. Socialisation theory has been used extensively to study pre- and in-service PE teachers (Dewar, 1990; Doolittle, Dodds & Placek, 1993) and more recently HPE teachers (Glover & Macdonald, 1997; Kirk, 1997). PE teachers have been found to “have relatively similar discursive histories with respect to the central place that physical activity, sport and the body plays in their identity construction” (Tinning, 2004, p.

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<sup>9</sup> Physical Education Teacher Education

244). Given this, it is not surprising that the dominant view of the role of a PE teacher has been concerned with teaching about physical activity, fitness and sport. How these recruits perceive the subject and their role as teachers of the subject content will either reproduce or challenge the “dominant practices and belief systems that exist in physical education, schools and society” (Dewar, 1989, p. 40).

Graber (1989) points out that, of all these socialising experiences, PETE was generally identified as having little influence on pre-service teachers' values and attitudes. Similarly, Schempp (1983, 1989) and Lawson and Stroot (1993) suggest that pre-service teacher education (the professional socialisation phase) could be described as a weakness in the overall socialisation process. More positively, however, one aspect of pre-service preparation has been applauded for its critical contribution to the socialisation of teachers. This area is known as the teaching practicum or teaching practice (Dodds, 1989; Su, 1992; Zeichner, 1987). Lave and Wenger (1991) would concur with this research, as it replicates their findings that legitimate peripheral participants in a community of practice best learn when exposed to the range of activities undertaken by their community. Participation provides members with opportunities to learn the *culture of the practice* of their community. As members participate in the community they are becoming more knowledgeable of its practice: they learn the rules, the language and the conventions through degrees of access to established or core members. The newcomer learns in the context of the practice.

PETE and more recently, HPETE<sup>10</sup> recruits have been found to be somewhat of a homogenous group (Macdonald, Abernethy & Bramich, 1998; Tinning, et al., 2001). Macdonald et al. (1998) in a study of a cohort of first year human movement studies' students in Queensland, found that HPE recruits were characterised as young, athletic, able-bodied, caucasian, from families with managerial/para-professional occupations, and had high academic ability. These recruits identified their principal motivation for pursuing a career in HPE teaching as providing them with the opportunity to pursue their own interest in and association with sport (Macdonald et al., 1998). As a participant researcher and academic who has been employed in five NSW tertiary institutions my personal observations concur that the professional profile of NSW PDHPE teachers is similar.

For tertiary preparation courses, challenging the beliefs held by these recruits is paramount if they are to engage with a socio-cultural view of health and physical activity. With the inclusion of a socio-cultural perspective in the NSW 1999 Stage 6

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<sup>10</sup> Health and Physical Education Teacher Education

PDHPE syllabus, the discourses often adopted by these recruits, that is those associated with competition, elitism, heterosexism, and an Anglo-celtic dominance need to be challenged (Dewar, 1989; Dodds, 1993; Fernandez-Balboa, 1997; Flintoff, 1993; Macdonald & Tinning, 1995; Sparkes et al., 1990; Swan, 1995; Wright, 1996). Introducing HPE teachers to what is known as a socially-critical curriculum, has been documented in other Australian states as being less than successful (Macdonald & Brooker, 1999). Therefore, if this perspective is to be successful, the challenge for NSW is to develop tertiary preparation courses that actively persuade and prepare PDHPE pre-service teachers to engage with the socio-cultural perspective of the 1999 Stage 6 syllabus.

### **My Role in the PDHPE Community of Practice**

As a participant in many overlapping PDHPE communities of practice, I have observed the struggles of power that have been played out in negotiating the Stage 6 PDHPE syllabus design and its enactment in NSW classrooms. My membership and participation in PDHPE communities of practice include being a member of the 1999 Stage 6 PDHPE syllabus writing team, PDHPE HSC senior marker, PDHPE HSC Advice Line advisor, PDHPE Consultant, PDHPE teacher in a variety of secondary schools, and PDHPE academic in five NSW tertiary institutions. These experiences have provided me with a valuable and unique perspective on the discursive shift as evidenced in the 1999 Stage 6 PDHPE syllabus.

As a member of the Stage 6 PDHPE syllabus writing team I was privy to conversations around, and an advocate for, the inclusion of a socio-cultural perspective of health and physical activity in the syllabus. As a PDHPE teacher I witnessed the persistent privileging of the human movement sciences perspective in faculty conversations, at regional network meetings and professional development opportunities. As a senior HSC marker I engaged in dialogue with colleagues who were assigned to my charge to mark options in the HSC examination with a socio-cultural focus and observed their lack of comfort, confidence and resistance to engage with the perspective. Currently, as an academic who coordinates and teaches a curriculum subject relating to the Stage 6 PDHPE syllabus, I daily observe pre-service PDHPE teachers' who grapple with how to make sense of and plan for teaching this syllabus in their future classrooms.

As a co-writer and presenter of professional development activities and resources aimed at assisting PDHPE teachers to engage with a socio-cultural perspective, I engaged with teachers resisting the new syllabus or discounting the extent of pedagogical change needed to implement the syllabus with a degree of fidelity.



My representation in these communities of practice has allowed me to gather authentic, privileged and longitudinal data relating to the design and implementation of the Stage 6 PDHPE syllabus and witness first-hand the struggles of power and negotiation around curriculum design and engagement.

### **Looking Back – Six Years On**

The 1999 Stage 6 syllabus has been examined at HSC level for six years now (2006). Chapter Five provides a detailed statistical profile of how the 1999 Stage 6 PDHPE syllabus has been taken up by teachers and their students. *Sports Medicine* and *Improving Performance* remain the popular HSC options, with approximately 89% and 81% of students respectively selecting these options in 2005 (NSW BOS, 2006) and there has been an observable decrease in the candidature selecting *The Health of Young People, Sport and Physical Activity in Australian Society*, and *Equity and Health*: those options that reflect a socio-cultural perspective (NSW BOS, 2006). Increasing numbers of female students are studying the course and the candidature from non-government schools continues to grow (NSW BOS, 2006). Students from non-government schools continue to select those options with a socio-cultural perspective in greater percentages than do their government school peers (NSW BOS, 2006). Female students select those options with a socio-cultural perspective in greater representative proportions than do the male students (NSW BOS, 2006). *Sports Medicine* is preferred by female students whilst *Improving Performance* continues to be preferred by male students (NSW BOS, 2006).

In regard to students' understandings of a socio-cultural perspective of health and physical activity, the 2001 HSC Notes from the Examination Centre states:

Generally candidates were able to demonstrate a good understanding of new syllabus concepts that focus on issues of the new public health approach, social justice and equity. (NSW BOS, 2002, p. 5)

Contrary to this statement, as an insider, acting in the role of Senior HSC Marker, I was privy to the standard of responses to HSC questions that required knowledge and understanding of a socio-cultural perspective in the 2001 HSC examination: namely Questions 21 (Health Priorities in Australia), 23 (The Health of Young People), 24 (Sport and Physical Activity in Australian Society) and 27 (equity and Health). My observations indicated that very few students were able to clearly articulate a thorough understanding of the breadth of a socio-cultural perspective of health and/or physical activity (Field Notes, 2001). This opinion was confirmed by the *2002 HSC Notes from*

*the Marking Centre - PDHPE* (NSW BOS, 2003) as reported in relation to question 21 “there was an improvement in the quality of this year’s responses” (NSW BOS, 2003, p. 6). Further evidence of the lack of understanding of the breadth of a socio-cultural perspective was indicated by the “significant number of candidates that did not answer this part of the question as it required them to describe a social justice framework” (NSW BOS, 2003, p. 12).

Three years later, in 2005 for those students and teachers who selected options inclusive of a socio-cultural perspective, the *2005 HSC Notes from the Marking Centre - PDHPE* document (NSW BOS, 2006) indicated that candidates’ responses:

added a degree of depth and accuracy about a social justice framework, which in turn appropriately linked health inequities experienced by Aboriginal and Torres Strait Islanders. Responses included references to strengthening individuals, strengthening communities, improved access to facilities and services and encouraging economic and cultural change. (NSW BOS, 2006, p. 10)

It is obvious that those teachers who select options inclusive of a socio-cultural perspective have developed some understanding of the concept, and have been able to assist their HSC students to a degree in responding to examination questions calling for knowledge of the principles of social justice, diversity and equity principles. What distinguishes these teachers from their colleagues in the PDHPE community of practice, and how they and their colleagues can be assisted to engage with a socio-cultural perspective of health and physical activity is one of the foci of this research.

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## Chapter Three

# Communities of Practice: Origins, Applications and Extensions

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*Through its practice – its concepts, symbols, and analytic methods – the community operates as a living curriculum*  
(Wenger, McDermott & Snyder, 2002, p. 38).

In Chapter One, I introduced the term “community of practice” and suggested that by examining the identity formation of members of the PDHPE community of practice, that Stage 6 NSW PDHPE teachers could be assisted to engage with a socio-cultural perspective of health and physical activity. The purpose of this chapter is to fully illuminate the characteristics which define a community of practice and discuss their philosophical underpinnings, origins, recent applications and extensions.

In the present chapter I will also describe the term “legitimate peripheral participation” and explain how it shapes the identity of the members of a community of practice, generates for them a sense of belonging and creates struggles of power in the master-apprentice relationship. I will explain how newcomers’ participation in a community of practice assists them to make meaning of their enterprise and the social relations associated with the community by engaging with the cultural artefacts of that community. By using the notion of a community of a practice I am suggesting that learning is situated, contextual and shared and that there are multiple sites for engagement in practice that influence the ongoing learning of both old-timers and newcomers.

This chapter further identifies the conditions or principles that are conducive to supporting and sustaining communities of practice. I propose that these principles need to be recognised by organisations and physical and social structures be employed to cultivate communities of practice.

### **Communities of Practice – An Historical View**

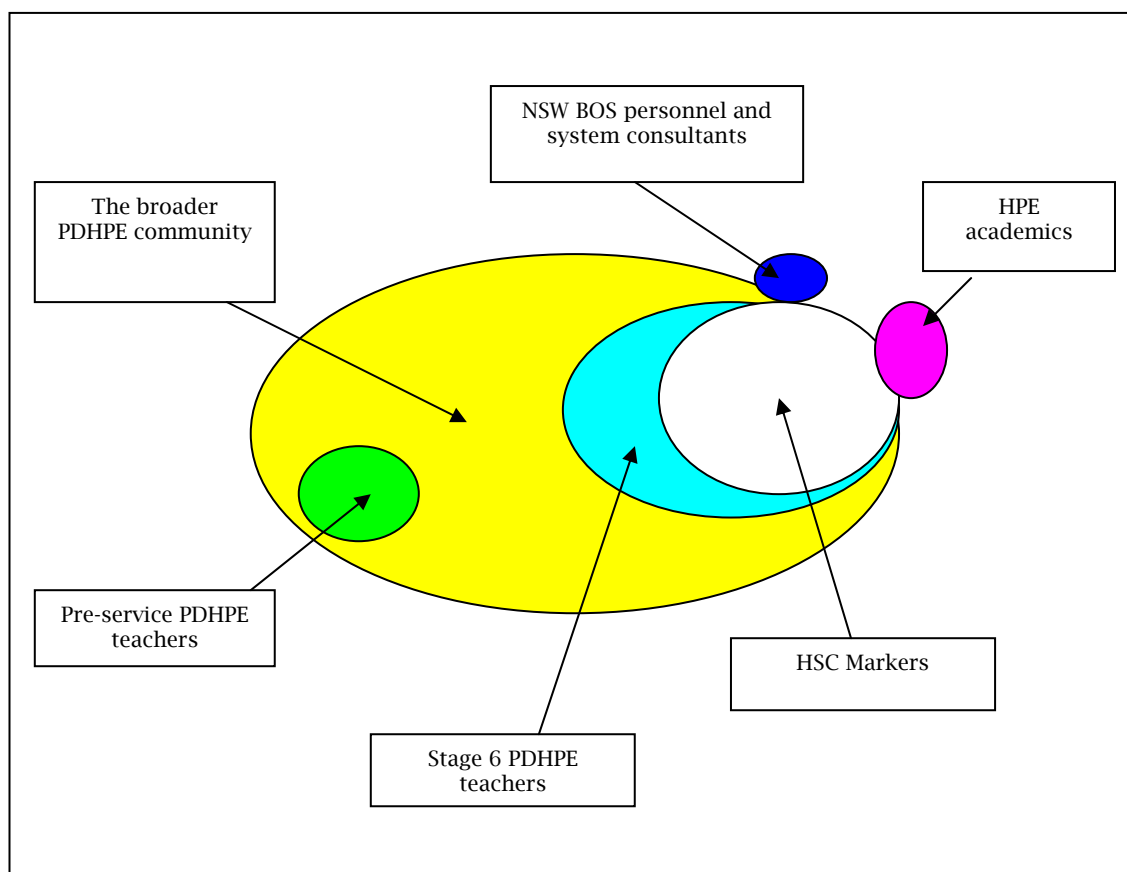
The concept of communities of practice has existed for many years; however, it was in 1991 that Lave and Wenger coined the phrase during their study of apprenticeship as a situated learning model. Learning as a situated practice involves communities of practitioners sharing understandings and experience relating to particular domains of knowledge and skills. Participating in these communities is how people learn:

constructing, sharing and applying knowledge to a specific practice. Communities of practice challenge the traditional notion of learning as receiving knowledge which is essentially disembodied from practice. A community of practice is based on collective expertise: it offers opportunities for participants to co-construct knowledge by inviting them to “share, build upon, and transform what they know about effective practice” (Buysse, Sparkman & Wesley, 2003, p. 265).

A community of practice, as defined by its originators, is:

a set of relations among persons, activity and the world, over time and in relation with other and overlapping communities of practice. A community of practice is an intrinsic condition for the existence of knowledge, not least because it provides the interpretative support necessary for making sense of its heritage. (Lave & Wenger, 1991, p. 98)

Lave and Wenger illustrated the concept of a community of practice with five examples of apprenticeship (midwives, tailors, butchers, non-drinking alcoholics, and quartermasters). Their examples illustrate both formal and informal arrangements of participation and emphasise that apprenticeship essentially was a form of *socialisation* into a community. This socialisation gradually introduces the newcomer to the language, culture, rituals and the conventions of the community and to those tasks that specifically relate to the practice. By gaining access to and interacting with established members, the newcomer gradually moves from peripheral to full participation in the community of practice (Hildreth, 2004). Figure 3.1 identifies the participants in the broader PDHPE community of practice including relevant overlapping communities.



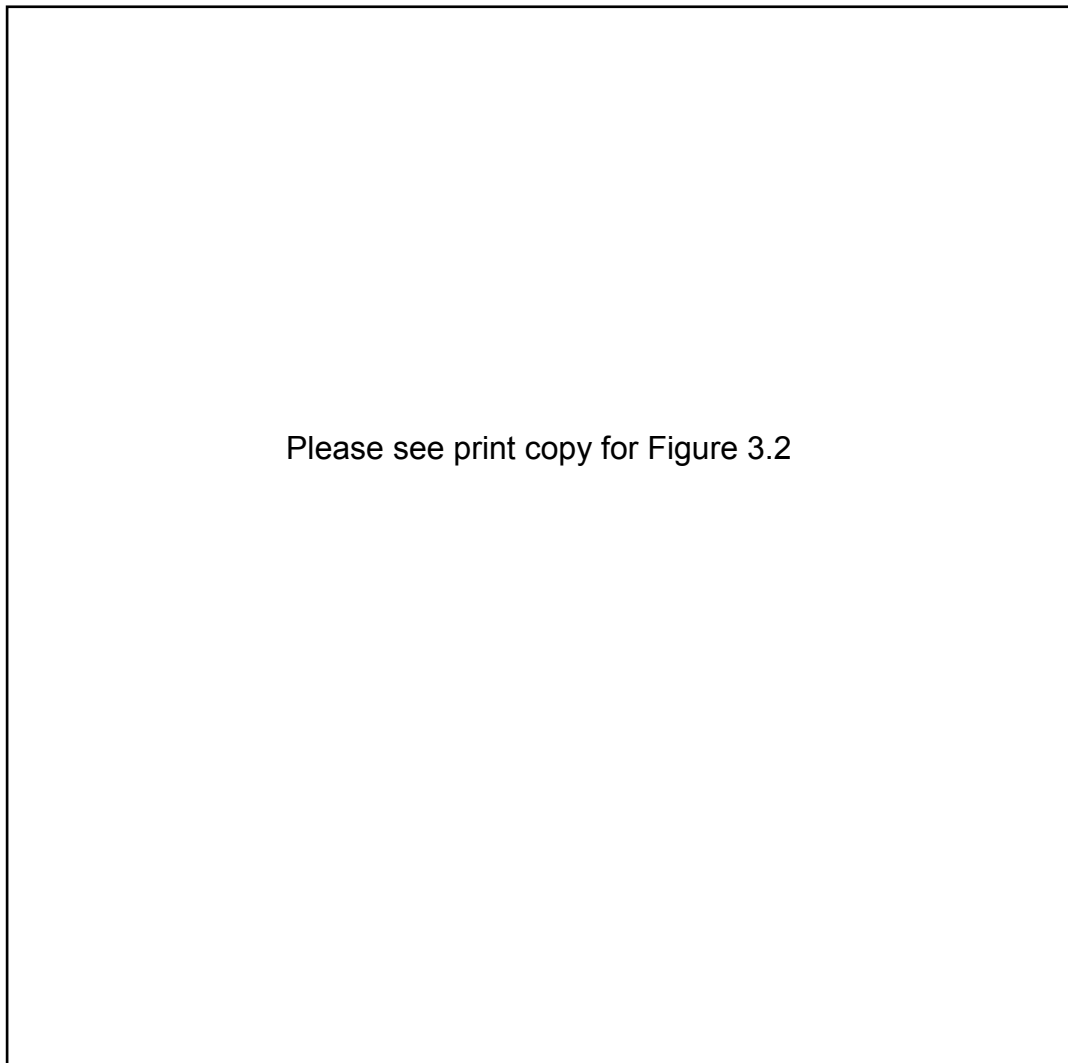
*Figure 3.1.* PDHPE communities of practice

The broader PDHPE community of practice is constituted by a range of PDHPE teachers (Years 7-10, Stage 6, HSC markers), educational system consultants, NSW BOS personnel, Health and Physical Education academics and pre-service PDHPE teachers. The common ground that cements these groups' participation in this community of practice is their shared domain of interest or practice relating to the KLA of PDHPE (see characteristics of a community of practice, this chapter). While individual members and group membership in each of the overlapping communities may be viewed as central or peripheral to the broader community of practice, it is the notion that learning is shared between these communities and the conditions that are conducive to this learning that define them as a community of practice.

Within the broader PDHPE community of practice, pre-service teachers act as peripheral members who are “learning the ropes” of the practice of teaching PDHPE and are thus positioned “on the edges” of the broader community. The community of practice of Stage 6 PDHPE teachers is constituted by approximately 50% of HSC markers. Each year approximately 1% (n=3) of academics and NSW BOS personnel mark the HSC and have been positioned as overlapping the HSC marker community of practice.

## Characteristics of a Community of Practice

Communities of practice, as stated by Wenger (1998), vary in their formation. The formation of these communities may be formal or informal, include core and peripheral members and can be fixed or fluid, short-lived or long-lasting. All communities, however, are not identifiable as communities of practice. A community of practice is organised around a “practice”. Three characteristics define this practice. These interrelated characteristics are identified in Figure 3.2. Each of these three dimensions will be discussed.



Please see print copy for Figure 3.2

Figure 3.2. Dimensions of practice as the property of a community  
(Wenger, 1998, p. 73)

### **Mutual Engagement – How Does the Community Function?**

A community of practice is first characterised by the mutual engagement of its participants in a shared “domain of interest” (Wenger, 1998, p. 73). In other words, members of a community of practice form relationships based on their interactions, sharing of experiences, solutions and knowledge associated with their common activities of work.

Learning traditionally gets measured on the assumption that it is a possession of individuals that can be found inside their heads ...[Here] learning is in the relationships between people. Learning is in the conditions that bring people together and organise a point of contact that allows for particular pieces of information to take on a relevance; without the points of contact, without the system of relevancies, there is not learning, and there is little memory. Learning does not belong to individual persons, but to the various conversations of which they take part. (McDermott, in Murphy, 1999, p. 17)

It is essential in order to maintain a community of practice, that this mutual engagement is enabled. Mutual engagement unites members of a community of practice as a social entity. Wenger (1998) identifies the necessity for allowing the community of practice to interact in conversations and exchanges that nurture the “dense relations of mutual engagement organised around what they are there to do” (p. 74). Membership of a community of practice requires a commitment to the “domain of interest” (Nardi & Miller, 1991). Participants within a community of practice recognise and value their shared competence; however, their competence may not be recognised as expertise or as valuable by people outside the community of practice.

The concept of a community of practice seems to imply a somewhat homogenous group with a set of shared understandings, beliefs, values and practices. However, Wenger (1998) argues that while a community of practice needs to have “mutual engagement”, that is, the members are engaged in a common practice, homogeneity “is neither a requirement for, nor the result of, the development of a community of practice” (p. 76). Diversities of understandings and overlapping competencies allow members of a community of practice to contribute in complementary ways. This complementarity may be seen as a valued resource or as a limitation to the functioning of a community of practice. Drawing on what individuals know and can do, as well as learning from members of the community of practice about what we don’t know and can’t do, has possibilities for creating a shared practice of mutual engagement (Wenger, 1998). Communities of practice also assist in constituting members’ identity

and constructing mutual relationships. Learning is inseparable from membership in the community of practice and as such, as members change their learning, their membership status and identity can also change.

Participation in these communities can involve many kinds of relationships: ones that are harmonious as well as those that are competitive, conflictual, cooperative and political (Wenger, 1998). The domain of interest or shared practice, therefore connects members of a community of practice in mixtures of relationships that involve:

power, dependence, pleasure and pain, expertise and helplessness, success and failure, amassment and deprivation, alliance and competition, ease and struggle, authority and collegiality, resistance and compliance, anger and tenderness, attraction and repugnance, fun and boredom, trust and suspicion, friendship and hatred. Communities of practice have it all. (Wenger, 1998, p. 77)

Participation in a community of practice involves action and connection: action involves members sharing in conversations, negotiating meanings of practice, and connection, in relation to their place in the community of practice, that is, their sense of engagement and affiliation or membership identity. Each member of a community of practice establishes a unique identity. This identity may evolve during the members' engagement in their practice and as result of mutual engagement in their domain of interest. Becoming knowledgeable in community of social practice involves fashioning an ongoing professional identity.

### **Joint Enterprise – What is the Community About?**

The negotiation of joint enterprise is the second characteristic of practice as a source of community coherence. Members of a community of practice engage in joint tasks and activities, share solutions, and assist each other. The formation of these relationships, centred on the pursuit of the domain of interest, enable members of a community of practice to learn from one another. While individual members of a community of practice may have very different understandings of their enterprise, it is perceived as “joint” because it is communally negotiated. Members of a community of practice are connected because they are involved in making their enterprise “real and liveable” (Wenger, 1998, p. 79).

Communities of practice have a common cultural and historical heritage. Their practices are influenced by a myriad of socio-cultural, political and institutional forces that assist in shaping and re-shaping the community's meanings or understandings of



knowledge. However, while knowledge may be mandated from external forces, a community's practice is not necessarily shaped by these forces. A community develops its practices and responds to external mandates from both personal and social interactions and negotiations with its members. As Wenger (1998) states, "it is only as negotiated by the community that conditions, resources and demands shape the practice" (p. 80). The practice of the community is not merely a response to an outside mandate but rather the practice emerges and grows as a negotiated community response. The community members, in this sense, essentially mediate their practice, that is, they negotiate their enterprise. Hildreth (2004) suggests that members of a community of practice have a common purpose that drives them to improve their practice. This drive or internal motivation provides the group with its momentum. Rather than external mandates or pressures it is the internal motivation that is a key element to the formation and maintenance of a community of practice.

Elements of accountability arise as members of a community of practice negotiate their joint enterprise. Essentially, the "rules" of engaging in the joint enterprise are negotiated. Members become accountable not only to their enterprise but also to the members of the community of practice.

These relations of accountability include what matters and what does not, what is important and why it is important, what to do and not to do, what to pay attention to and what to ignore, what to talk about and what to leave unsaid, what to justify and what to take for granted, what to display and what to withhold, when actions and artefacts are good enough and when they need improvement. (Wenger, 1998, p. 81)

### **Shared Repertoire – What Does the Community Produce?**

Development of a shared repertoire is the third characteristic of practice as a source of community coherence. Members of a community of practice share not only their work but their histories, stories, techniques, tools, artefacts, routines, symbols, language and behaviour patterns. In other words, there is a cultural context for members' work. This shared repertoire is essentially a material trace of the community of practice.

The community of practice produces a repertoire of ways of knowing and doing that have evolved as part of the process of their common work or practice. This shared repertoire includes the discourses that shape members' understandings of their practice and their membership identity (Wenger, 1998). Shared repertoire is a set of resources that members use to engage in, make meaning of and refine their practice. The community of practice may not, however, agree on meanings associated with their

practice. “Shared beliefs ... are not however, what shared practice is about” (Wenger, 1998, p. 84). Misunderstandings of meaning only need to be resolved if they interfere with mutual engagement and then this negotiation provides opportunities for new meanings to emerge amongst members.

### **Community of Practice – Theoretical Underpinnings**

A community of practice is grounded by two central tenets: essentially that learning is *situated*, and that practice is made *meaningful through reflection with others* who engage in the shared experience. Situated learning acts as a framework for understanding how learning occurs as a socio-cultural phenomenon. If we accept this premise, learning is undertaken by a means of locating oneself in a social community and making meaning of the knowledge, the community’s practices and the world. Learning is not considered as an individual endeavour undertaken in isolation, rather it is grounded in our everyday activities and cannot be separated from the multifaceted environments in which knowledge must be applied (Wenger, 1998). It is reasonable to suggest that knowledge is acquired through engagement in practice and through experience. Learning results as individuals engage in social processes requiring negotiation and problem solving with others in the social world. Barab and Duffy (2000) highlight that situated learning represents a shift from learning as an individual process to viewing learning as a function of being a member of a community of learners. These characteristics of situated learning are clearly evident in the way communities of practice share inquiry, engage in learning through authentic practice opportunities and solve dilemmas as a joint enterprise. The notion of communities of practice implies that practitioners create and make meaning from their shared and lived experiences and that learning occurs within the context of social relationships as practitioners mutually engage in their daily enterprise.

The second essential tenet in which communities of practice are grounded is *reflective practice*. Ongoing and purposeful reflection with others provides opportunities for members of a community of practice to examine the interrelationship between their knowledge and experience. “Reflective practice is predicated on the assumption that knowledge is derived from professionals’ own experience and observations as well from formal knowledge gained through theory and research, and that each informs the other” (Buysse et al., 2003, p. 268). Reflection essentially involves practitioners standing back from their work and considering the philosophies and practices that underpin their daily enterprise. Schön (1987) suggests that reflective practice includes both technical skills and the art of practice. This combination of solving problems in new, unique or unfamiliar situations using a set of established rules can be applied to

the workings of a community of practice. Reiman (1999) from his Californian study of the social role-taking and guided reflection framework in teacher education, noted that constructing meaning from experience most often coincides with engaging in a new or unfamiliar activity or participating in an activity with a new focus. In a community of practice new knowledge that is generated through communal reflection, cooperation, collaboration and inquiry not only extends each individual's understandings of, and meanings associated with their work, but also adds to the knowledge base of the entire community of practice.

## **Applications of a Community of Practice Framework:**

### **The Proposed Benefits**

Although the term community of practice is relatively new, for many decades both formal and informal groups within organisations have benefited from sharing their knowledge, insights and experiences with others with similar interests and enterprises. The term introduced by Lave and Wenger (1991) now serves a multitude of professional contexts and has practical applications in technical, organizational, government, and educational systems. It is accepted that this situated approach to learning can be used to “consider new methods of knowledge generation and dissemination in practice fields” (Buysse, Sparkman & Wesley, 2003, p. 265).

A community of practice acts as a learning community: one in which members use their peers as a source of knowledge and professional development. While it is beneficial for individuals to hold personal knowledge, it is when the members of a community of practice interact and share their learning that knowledge networks flourish.

Seely Brown and Duguid (1991) applied the notion of a community of practice in an ethnographic study of the copy-repair technicians of the Xerox Corporation. During informal networking opportunities, technicians shared their solutions to repairing copiers and therefore improved the efficiency of other technicians to diagnose problems, devise solutions and repair copiers. The sharing of what Seely Brown and colleagues badge “war stories” enabled this community of practice to develop “collective memory” and apply their shared knowledge to solving problems they encountered. This has extended further as:

organisations such as BP/Amoco, IBM, Montgomery-Watson Harza, Shell, Siemens, Johnson & Johnson, The World Bank, and Bristol-Myers Squibb have begun to support communities of workers, commonly referred to as

Communities of Practice (CoPs), to increase the sharing of lessons learned, the exchange of insights and ideas and the transfer of expertise and hands-on experience. (Fontaine & Millen, 2004, p. 2)

Within commercial environments a number of re-defined notions of a community of practice (Orr, 1990; Seely Brown & Duguid, 1991, 1998) have formed and been applied in knowledge management (KM) contexts. Businesses have recognised the ability of communities of practice to provide opportunities for participants to share learning, manage knowledge and develop a collective responsibility for performance (Hildreth & Kimble, 2002).

Acknowledging that communities of practice affect performance is important in part because of their potential to overcome the inherent problems of a slow-moving traditional hierarchy in a fast-moving virtual economy. Communities also appear to be an effective way for organisations to handle unstructured problems and to share knowledge outside of the traditional structural boundaries. In addition, the community concept is acknowledged to be a means of developing and maintaining a long-term organisational memory. These outcomes are an important, yet often unrecognised, supplement to the value that individual members of a community obtain in the form of enriched learning and higher motivation to apply what they learn. (Lesser & Storck, 2001, p. 2)

Communities of practice are highly relevant to educational settings. While formal educational institutions were initially tentative to take on the concept, as it essentially challenged their reason for being, the notion of a community of practice has recently provided a framework for innovations in practice in schools (see Barab & Duffy, 2000; Boaler & Greeno, 2000; Goos, Galbraith & Renshaw, 1999; Lerman, 2001). One of the early examples of applying communities of practice in teacher education was the *Guided Inquiry supporting Multiple Literacies* (GIsML) project undertaken by Palincsar and her colleagues (1998) in Illinois. This study successfully used an inquiry-based approach to teaching science and created a community of practice of doctoral students, a science teacher, researchers and a group of K-5 teachers. Group meetings included sharing personal narratives, reflecting on real-life practices and generating new ideas regarding how to continue with their teaching. The project group embraced the tenets of a community of practice including “shared knowledge generated through situated learning and reflection as well as diversity in expertise” (Buysse, Sparkman & Wesley, 2003, p. 270).

The most influential application of a community of practice to a school context was by Rogoff et al. (2001). Rogoff collaborated with two teachers from an innovative school in Salt Lake City, Utah where she observed parents, teachers and students to conclude that learning occurs through interested participation with other learners (see Rogoff, Turkianis & Bartlett, 2001). In other school-based examples of initiating a community of practice to improve learning, Perry, Walton and Calder (1999) facilitated opportunities for teachers to implement literacy strategies for young children.

Communities of practice have also been used as a model for professional development and are prolifically documented in the teacher education research (Buysse et al., 2003; Englert & Tarrant, 1995; Palincsar, et al., 1998; Stamps, 1997; Westheimer & Kahne, 1993). Researchers working in this area advocate for communities of practice as a framework for professional development as they have the potential to challenge the hierarchical relationships that traditionally exist between researcher and practitioner. This one-sided relationship, where the researcher is viewed as the expert and “knowledge generator” and practitioners are viewed as novices or “knowledge translators” is contested when communities of practice are used as a framework (Palincsar, et al., 1998). The argument is that teaching and learning become bi-directional with all participants in a community of practice “contributing toward the professional community’s knowledge base” (Buysse, Wesley & Able-Boone, 2001, p. 182). By applying a community of practice framework, professional development programs may be transformed into learning communities where practitioners co-construct knowledge (Englert & Tarrant, 1995). The goal of a community of practice is to provide opportunities for collaboration and professional inquiry. In order to transform learning communities, professional development must move to multiple, shared, reflective discourse that involves deep knowledge and learning (Digisi, Morocco & Shure, 1998). This essentially involves shifting from knowledge transmission to knowledge co-construction within a learning environment that fosters trust, professional respect and open conversation between active and mutually engaged participants.

Another shift in professional development is toward the blurring of pre-service and in-service training. Professional development opportunities in teacher education have historically concentrated on what could be viewed as two disparate components: coursework and field experience. Communities of practice provide pre-service teachers with increased exposure to established practitioners, and with opportunities to apply their new knowledge to everyday practice and real-life problems. Barab and Duffy (2000) constructed a “Community of Teachers” program to counter the problem they saw with the historical short-term in-school practicum experienced by pre-service

teachers. The Community of Teachers program aimed to create a meaningful and long-term relationship between the university and the school community. Rather than being assigned to an individual teacher, pre-service teachers were offered a multitude of experiences in the practice field with a range of colleagues, including other pre-service teachers and multiple in-service teachers throughout their school placement. They found that these experiences in a community of practice assisted pre-service teachers to construct meanings of their practice as well as their professional identity in the field of practice.

Many have argued that professional development opportunities for experienced practitioners, such as in-service teachers, “has been disjointed, typically providing limited exposure to a wide range of topics through workshops, staff development activities and professional conferences” (Buysse et al. 2001, p. 191). This exposes the need for a more coordinated and collaborative approach to professional learning, one in which practitioners are invited to participate in the discourses of learning in situated contexts with other practitioners whom they respect, trust and who share an interest in improving their practice.

### **Participation in a Community of Practice**

In an effort to understand the workings of a community of practice, it is important not only to describe its characteristics but also to introduce the notion of participation. Learning involves *participation* in a community of practice. For Lave and Wenger (1991) participation provides the key to understanding communities of practice. Wenger (1998, p. 4) defines participation as:

not just to local events of engagement in certain activities with certain people, but to a more encompassing process of being active participants in the *practices* of social communities and constructing *identities* in relation to these communities.

Participation provides members with opportunities to learn the *culture* of the practice of their community. As members participate in the community they are becoming more knowledgeable of its *practice*: they learn the rules, the language and the conventions through degrees of access to established or core members. The newcomer learns in the context of the practice. For Lave and Wenger (1991) the social practice, and not the learning, is the starting point.

Newcomers learn about the community, including:

who is involved; what they do; what everyday life is like; how masters talk, walk, work, and generally conduct their lives; how people who are not part of the community of practice interact with it; what other learners are doing; and what learners need to learn to become full practitioners. (Lave & Wenger, 1991, p. 95)

Communities of practice provide opportunities for members to participate at different levels depending on their authority within the community of practice. Central to this is the premise that newcomers learn from old-timers and that there are essentially central and peripheral members of the community of practice.

### **Legitimate Peripheral Participation (LPP)**

The term Legitimate Peripheral Participation (LPP) is applied to members of a community of practice who are, in common terms, *learning the ropes*. LPP is the process of enculturation into the community of practice. It is deemed to be the conceptual bridge between the individual and the community of practice. As newcomers participate in communities of practice they become more knowledgeable of that practice and move from a position of newcomer to old-timer. As they learn the knowledge and skills of the practice, they “move toward full participation in the socio-cultural practices of a community” (Lave & Wenger, 1991, p. 29). LPP can be used to explore the identity of the individual in the world, and the (re)production of the community of practice. In this sense, identity, knowing and social membership are deeply intertwined. Thus “learning is not a condition for membership, but is in itself an evolving form of membership” (p. 53). For example, pre-service PDHPE teachers are LPPs in the broader PDHPE community of practice as they observe more experienced teachers in school contexts and learn of the culture of the practice of PDHPE teaching. Those members of the broader PDHPE community of practice who aspire to be Stage 6 teachers or HSC markers may also be considered LPPs in these communities of practice.

LPP is a complex notion and has a composite character. Its aspects are essentially inseparable from each other. “Legitimation and participation define the characteristic ways of belonging to a community, while peripherality and participation are concerned with location and identity in the social world” (Hildreth, 2004, p. 37). LPP is not merely learning situated in practice but learning as an integral part of practice. While the composite character of LPP is undeniable, it is important to define the aspects and their relationship separately.

### ***Legitimate***

The term “legitimate” refers to the power and social capital held by the community and individuals within the community of practice. The legitimacy of participation in a community of practice need not be formal. Becoming a legitimate participant does not need to either involve rank or experience or be from some externally imposed hierarchy but by knowing, understanding and applying the practice, it is then that the community sanctions their full membership. This sanctioning, however, is not in a formal sense, such as certification or rank; rather it is an acceptance of the abilities and knowledge of the newcomer as a member of the community of practice.

By adopting the roles of an academic, HSC senior marker, consultant, conference presenter and critical friend to the Stage 6 PDHPE community of practice, I have earned a degree of legitimacy in the community of practice as defined by Wenger (1998). This multi-membership in a constellation of interconnecting communities of practice, for example, as a PDHPE academic, consultant, syllabus writer and HSC marker, has allowed me to engage in exchanges of dialogue that were viewed as meaningful and relevant to teachers who were grappling with making meaning of a socio-cultural perspective of health and physical activity.

### ***Peripheral***

“Peripherality” is a way of being positioned or located in the field of a community of practice. Lave and Wenger (1991) suggest that initially newcomers learn at the periphery of the community. The periphery in this sense, however, is not located physically at the edge of the community nor does it imply either a negative or essentially disempowered position. It simply relates to a position which “suggests an opening, a way of gaining access to sources for understanding through growing involvement” (Lave & Wenger, 1991, p. 37). As these newcomers gain greater mastery of their practice they move to a more central position in the community of practice. The boundaries of a community of practice are to be seen as permeable with two-way exchanges of knowledge between newcomers and old-timers.

### ***Participation***

Lave and Wenger (1991) draw the distinction between peripheral and full participation in a community of practice. Peripheral participation is not merely observation and imitation but involves participation in order for the newcomer to absorb and be absorbed in the culture of practice. The progression from peripheral to full participation requires decentering mastery and pedagogy away from the old-timers and into structuring of resources in the community of practice. As the newcomers become more informed of the rites, rules and rituals of the community of practice they



learn "...to speak, act and improvise in ways that make sense in the community" (Smith, 2003, p. 4). The terms peripheral and full participation together denote the degree of engagement in the community of practice. Changing locations is a part of the learning trajectories, developing identities and forms of membership within the community of practice. Full participation should not be mistaken with an endpoint in knowing; rather it signals mastery in the form of full membership in the community of practice. Assuming a position of peripherality allows members of a community of practice to gain:

an increasing understanding of how, when, and about what old-timers collaborate, collude, and collide, and what they enjoy, dislike, respect, and admire. In particular, it offers exemplars (which are grounds and motivation for learning activity), including masters, finished products, and more advanced apprentices in the process of becoming full practitioners. (Lave & Wenger, 1991, p. 95)

Being a peripheral member of a community of practice should not imply inadequacy. Peripheral and full participation provide a way of considering the positions of members of a community of practice in relation to learning. Newcomers participate in the learning curriculum of the community of practice. Viewed from the perspective of the learner, this curriculum provides opportunities for participation in the enterprise of the community. The learning curriculum is essentially situated and is characteristic of the community.

### ***Access***

To be accepted as a full participant in a community of practice, the newcomer must have "access to a wide range of ongoing activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation" (Lave & Wenger, 1991, p. 101). This access can be problematic depending upon the transparency of the shared repertoire of the community of practice. Issues of understanding and control may present as obstacles to participation for the newcomer. Stories, rituals, rules, and language are artefacts that inadvertently document the enterprise of a community of practice. Learning to engage with and understand these "technologies of everyday practice" (p. 101) can be problematic if sufficient opportunities for access and participation are denied to the newcomer. These technologies are essentially the tools for deciphering not only the practice but the history of the practice and how to participate in the community's cultural life. Lave and Wenger (1991) suggest that learning is not undertaken by replication or by acquiring knowledge via instruction, but rather learning occurs through centripetal

participation in the learning curriculum of the community. Participation in the practices of a community of practice is, for the newcomer, an investment in learning and an investment in the formation and sustainability of a legitimate identity.

### **Learning the Discourses of a Community of Practice**

Legitimate Peripheral Participation (LPP) requires newcomers to learn how to talk as full participants do. As Seely Brown and Duguid (1996) state, the newcomer must “learn how to act as one, talk as one, be recognised as one – it’s not the explicit statements, but the implicit practices that count” (p. 13). For newcomers to the community of practice, learning *from* talk should not be substituted for LPP. It is necessary for the newcomer to learn *to* talk as a legitimate peripheral participant. There is a difference between talking *about* practice and talking *within* practice. Full participation in a community of practice requires learning *to* talk, both *about* and *within* practice. For a community of practice, both forms of talking fulfil functions of engaging, focusing and supporting communal memory as well as signalling membership. These terms need defining in regard to their application to membership and identity in a community of practice. Talking *about* a practice usually happens from the outside: disengaged from the practice. Those who “fail to learn the language and practices of the community, that is, those who fail to become a member, are those who simply learn the outside information ... and thus give themselves away as outsiders” (Hildreth, 2004, p. 39).

Talking *within* the practice demonstrates a shared knowledge. Community members share a system of beliefs, practices, skills and conventions and also have terms that are irrelevant or meaningless to outsiders. Insiders within a community of practice talk within practice: they talk of facts, and assumptions, norms of behaviour, procedures and even ineffable experiences (Clark, 1996). Learning to talk *within* practice signals a form of legitimisation in a community of practice. As newcomers learn the talk, they share their “war stories” of practice and as their stories become more mature their location (peripherality) and legitimacy within the community of practice changes.

Once war stories have been told, the stories are artefacts to circulate and preserve. Through them experience becomes reproducible and reusable ... They preserve and circulate hard won information and are used to make claims of membership or seniority within the community ... They also amuse, instruct and celebrate the tellers’ identity ... Such tellings are also demonstrations of one’s competence ... and therefore one’s membership in the community. (Orr, 1997, p. 26)

The broader PDHPE community of practice has indeed its own war stories. Stories that unite it as a KLA; separate its teachers into discourse clusters; sanction its centripetal members and assist in nurturing its legitimate peripheral participants.

### **Identity in a Community of Practice**

There is a close relationship between identity and practice. In order to develop a community of practice members need to engage with and acknowledge each other as participants and collectively and individually participate in its practice. Wenger (1998) suggests that “practice entails the negotiation of ways of being a person in that context” (p. 149). The formation and maintenance of a community of practice literally involves the negotiation of members’ identities. Identity can be defined with regard to the relations that develop in a community. These relations legitimate members’ participation in the practice as well as the members’ *place* in the community. Practice essentially defines which members have expertise and who holds positions of peripheral and full participation.

The notion of identity that I have adopted in this research, does not relate to the psychological perspectives, rather it draws on the concept of *positioning* within a community of practice. Whether a PDHPE teacher is viewed as a centripetal or central member of a community of practice, determines their understandings of the shared history of the practice, the stories, rituals, rules and can make meaning of the community’s artefacts by drawing on the history of the community.

LPP is an initial form of membership in a community of practice. As the newcomer is accepted and recognised by established and adept old-timers of the community of practice, learning is viewed as being of value. In the case of the community of practice of PDHPE HSC markers, members with domain knowledge with a human movement sciences perspective were valued. Newcomers with knowledge of a socio-cultural perspective, whilst being viewed with initial suspicion were later valued for their ability to assist old-timers in making sense of the 1999 Stage 6 syllabus.

The goal of acquiring domain knowledge and full participation becomes important for the newcomer. Initially the contributions made by the newcomer to the shared stories of the community may be minimal. However, it is in the learning process, in undertaking the tasks and participating in the conventions and rituals of the community, that the newcomer moves from peripheral to full participation and essentially earns their identity as a “master practitioner” (Lave & Wenger, 1991, p. 111).

Gaining central participation is the motivation for learning for the newcomer. It sanctions their cultural identity within the community of practice.

When newcomers are granted legitimate participation into a community of practice they bring with them their own viewpoints of how domain knowledge should be employed and how social relations should be played out. In any community of practice this introduces what Lave and Wenger (1991, p. 114) term the “continuity displacement contradiction”. LPP as a means of achieving continuity over generations for the community of practice and the displacement of old-timers by newcomers are inherently contradictory notions. This replacement of old-timers creates tension for both the old-timer and the newcomer. The newcomer needs to participate in the enterprise of the community, to engage in the social relationships in order to understand the practice. However, they still have a stake in the development of the practice and their emerging identity in its future. Newcomers have the potential to shape the future of the community of practice as they engage in the politics of participation. In the community of practice of Stage 6 teachers, newcomers have the potential to select different HSC options from their more experienced colleagues and assist in changing their thinking regarding a socio-cultural perspective of health and physical activity. These politics can relate to the social relations within the community of practice. As Wenger (1998) states, “the politics of participation include influence, personal authority, nepotism, rampant discrimination, charisma, trust, friendship, ambition” (p. 91). The politics of a community of practice can also relate to reification, examples of which include policy documents, legislation, statistics, contracts and plans.

The struggles for power between newcomers and old-timers result in a reciprocal relation between the persons and the practice. Newcomers may become either clones or heretics of their masters and their practice and develop an identity in relation to their practice and the community.

Conflicts between masters and apprentices ... take place in the course of everyday participation. Shared participation is the stage on which the old and the new, the known and the unknown, the established and the hopeful, act out their differences and discover their commonalities, manifest their fear of one another, and come to terms with their need for one another. Each threatens the fulfilment of the other's destiny, just as it is essential to it. (Lave & Wenger, 1991, p. 116)

As newcomers forge their identities in a community of practice they do not necessarily aim to discontinue or disrupt the established practices of the community. In order to gain membership in the community they must be recognised as contributing legitimate participation, therefore they must recognise the shared history of the community's practice and find ways to contribute that provide an investment in their identity formation. As a result, newcomers initially reproduce or replicate the existing practices of the community, seeking continuity rather than discontinuity. Conversely, old-timers have significant investments in the rituals of their practice, yet they do not necessarily seek continuity. Involving themselves in the possibilities and imaginings of the practice, give form to new ways of belonging and afford them the opportunity to continue in their membership. The meeting of this discontinuity and continuity is essentially an encounter of the past and future.

Wenger (1998) identifies five parallels between practice and identity: identity as negotiated experience, community membership, trajectories, nexus of multi-membership, and the local global interplay. Each of these will be discussed.

### **Identity as Negotiated Experience**

The first of these parallels is identified as *identity as negotiated experience*. Participants in a community of practice define themselves by the way they participate in their practice, as central or peripheral members, as well as by the way others view their participation in the practice. Participating in a practice gives identity as a practitioner in that particular field.

Identity in practice is defined socially not merely because it is reified in a social discourse of the self and of social categories, but also because it is produced as a lived experience of participation in specific communities. (Wenger, 1998, p. 151)

As participants are provided with more complex opportunities to participate in practice, their understandings of the practice become more meaningful and more abstract. As participants interact with their world and develop relations with others, there is a layering of events of participation and this informs their abstraction of their practice. These layers essentially build upon each other and produce the participants' identity by interconnecting the "participative experiences and reificative projections" (Wenger, 1998, p. 151).

Becoming a full member of a community of practice requires newcomers to engage with the resources of the community, as well as participating in its social relations

(Adler, 1998). These resources, both material and human, embody the inner workings of the community; they are tied to its history and the development of its practice and assist the newcomer to make sense of the learning curriculum. These resources need to be, what Lave and Wenger (1991) term, “transparent”. “The term transparency when used here in connection with technology refers to the way in which using artefacts and understanding their significance, interact to become one learning process” (Lave & Wenger, 1991, p. 102-3). In other words, it is a way of organising activities that makes their meaning visible. The concept of transparency combines the two dual characteristics of visibility and invisibility. The mediating technologies, the tools for deciphering the community’s practices are initially invisible to the newcomer. They are learned through immersion in the enterprise and the community’s social relations. It is this understanding of the artefacts’ significance, how it assists the community to make meaning of their enterprise that is initially termed the invisible. As practitioners learn the discourses and innate procedures of the community’s practice, the processes and procedures of practice may be understood, manipulated, and transformed by the legitimate peripheral participant. Understanding the inherent practices of a community allows the newcomer to theorise about and layer their understandings of practice. This essentially assists them in shifting from the peripheral fringes of learning to establishing a centripetal identity in the community of practice.

### **Community Membership**

The second of Wenger’s (1998) parallels between practice and identity is *community membership*. As members of a community of practice learn how to work, they engage with each other and this involves playing a part in the relations that define the community. As communities of practice are not reified by labels or markers, participation both peripheral and full, constitutes the participants’ identity. Playing a part in a community requires members to learn to interpret and use the community’s repertoire of practice. The community’s shared repertoire includes its artefacts, language, rituals, rules and conventions and participants need to learn to use these in order to become competent in their practice. Being competent in practice involves being *familiar with the territory* of the community of practice. When participants are recognised as full members of a community of practice, they are viewed as being competent: they can authentically engage with others, and make use of the community’s history in shared memories. This competence is seen as a dimension of identity. Essentially membership constitutes identity through forms of competence. “Identity then, like legitimation, is a form of competence that is constantly being renegotiated over time” (Hildreth, 2004, p. 55). When members are viewed as full participants in a community of practice, they are expected to share their resources, those that they use to communicate and undertake their practice. These dimensions of

competence then become dimensions of a practitioner's identity. In a community of practice, members learn the ways to appropriately work with and engage with others. A dimension of their identity formation is based on their relations with those with whom they are mutually engaged in their joint enterprise. How practitioners relate to others in their community of practice assists in defining their identity and their competence. Sustained engagement in practice provides opportunities for members of a community of practice to effectively interpret and apply the repertoire of the practice. In other words, they have the ability to authentically make use of the history of the community of practice, because they have been a part of its creation and maintenance, and now this history becomes part of the members of the community of practice. "As an identity, this translates into a personal set of events, references, memories, and experiences that create individual relations of negotiability with respect to the repertoire of the practice" (Wenger, 1998, p. 153).

If practitioners were to venture into new practices then this is considered to be unfamiliar territory. Newcomers to a community of practice, such as those with legitimate peripheral participation, do not have the ability to engage fully with others; they cannot initially interpret the subtle rituals or jargon-specific language used by members; nor can they share references that full participants use. Membership shapes the identity of the participant through their interactions with the familiar and unfamiliar.

An identity ... is relating to the world as a particular mix of the familiar and the foreign, the obvious and the mysterious, the transparent and the opaque. We experience and manifest our selves by what we recognise and what we don't, what we grasp immediately and what we can't interpret, what we can appropriate and what alienates us, what we can press into service and what we can't use, what we can negotiate and what remains out of reach. (Wenger, 1998, p. 153)

### **Trajectories**

The third of Wenger's (1998) parallels between practice and identity is *trajectories*. Trajectories "give significance to events in relation to time construed as an extension of the self.... A sense of trajectory gives us ways of sorting out what matters and what does not, what contributes to our identity and what remains marginal" (Wenger, 1998, p. 155). Identity is not an object: it is negotiated temporally and is a constant work in progress. Because an identity is constructed in social contexts, as a participant learns, their identity forms trajectories. Wenger (1998) suggests that for a newcomer to a community of practice there can be various types of trajectories. A *peripheral*

trajectory suggests that the participant will never become a full and sanctioned participant in a community of practice. Their level of access to the community of practice's shared repertoire may allow them to contribute peripherally and this may contribute somewhat to their identity; however, their trajectory may take them to other overlapping communities of practice, or they may remain as peripheral members. *Inbound* trajectories suggest that newcomers to the community of practice have set goals to move toward centripetal participation: inbound to full participation. *Insider* trajectories shape the identity of old-timers within a community of practice. As new knowledge, new insights, new conditions arise, the participant must work on renegotiating their identity. Even cynical veterans must reshape their identity in response to initiatives in practice, research findings, professional development activities and new responses to practice. *Boundary* trajectories exist to link communities of practice. Some members of a community of practice undertake what Wenger (1998) terms "brokering" to establish credible and respected links between different communities of practice. As an academic who designed and implemented the workshop *New Meanings of Health and Physical Activity* I was in the privileged position of acting as a "broker". In this capacity I acted as a translator of the intended meanings of the syllabus content and was privy to the many conversations and exchanges that occurred at professional development opportunities throughout NSW.

Lastly, *outbound* trajectories lead out of the community of practice. A member may need to form new partnerships, forge new relations and reposition themselves differently in an overlapping or new community of practice. Whether members of the PDHPE community of practice adopted a centripetal or peripheral trajectory in relation to their community identity would be formulated by their level of participation in learning about the 1999 Stage 6 PDHPE syllabus content and pedagogies and by their degree of understanding of a socio-cultural perspective of health and physical activity. A knowledge of a socio-cultural perspective, however limited, was essential to members of the Stage 6 PDHPE community of practice as they had vested interests in the success of their students at the HSC examination. As the PDHPE HSC examination included both core and option questions relating to a socio-cultural perspective, Stage 6 PDHPE teachers' credibility or legitimacy in the community of practice may be determined by the degree to which they engaged with syllabus change.

As Lave and Wenger (1991) suggest, insiders in a community of practice are able to recognise the level of competence of its central members. Their position or identity in the community of practice is essentially a demonstration of their *know-how* of the practice. Establishing who were to be central members and who were to be peripheral members of the community of practice would essentially be determined by



participants' familiarity with the territory of the practice. Members of the Stage 6 PDHPE community of practice who resisted the syllabus change may have chosen to adopt an outbound trajectory or continued to select HSC options with a human movement sciences perspective and give "lip service" to the HSC core with a socio-cultural perspective.

### **Nexus of Multi-membership**

The fourth of Wenger's (1998) parallels between practice and identity is the nexus of multi-membership. Here, Wenger is suggesting that members need to reconcile their identity as they belong to more than one community of practice. Members belonging to multiple communities of practice must find ways to make their forms of membership coexist. This negotiation may be successful or be the source of constant struggle as the member works to reconcile their various forms of participation. As evidenced by HSC option selections, as detailed in Chapter Five, for PDHPE teachers who are committed to learning about a socio-cultural perspective of the Stage 6 PDHPE syllabus may cause them to question their role and place in both the broader PDHPE community of practice and within their own community of Stage 6 PDHPE teachers. These teachers may engage in consultancy work around the socio-cultural perspective and find the need to reshape their professional identity within several communities of practice.

Multi-membership in communities of practice also involves the interweaving of several trajectories. Through engagement with others in overlapping or connecting communities of practice, individuals create bridges "across the landscape of practice" (Wenger, 1998, p. 161). This negotiation and boundary work however largely remains invisible to other members of the communities of practice. The individual silently weaves a link between their identities and multi-membership in their communities of practice.

### **Local-Global Interplay**

The fifth of Wenger's (1998) parallels between practice and identity is local-global interplay. Part of the work of any community of practice is the link between the practice and the broader social world in which the practice is located. It is important to realise that communities of practice are connected to broader contexts that are rich and complex. Our identity in practice is lived, and negotiated in relation to our experience. Members of the community work and rework their identity in response to their social relationships. Their membership is constructed in their growing familiarity with the interpersonal and professional expectations of the community. Identity involves a trajectory that spans the present and the future and determines members' level of participation and position in a community of practice. An identity also

provides links between practices as members reconcile their identity across practice boundaries. Lastly, identity is situated in the broader social context as well as located in the community's practice.

### **Expansions on a Community of Practice**

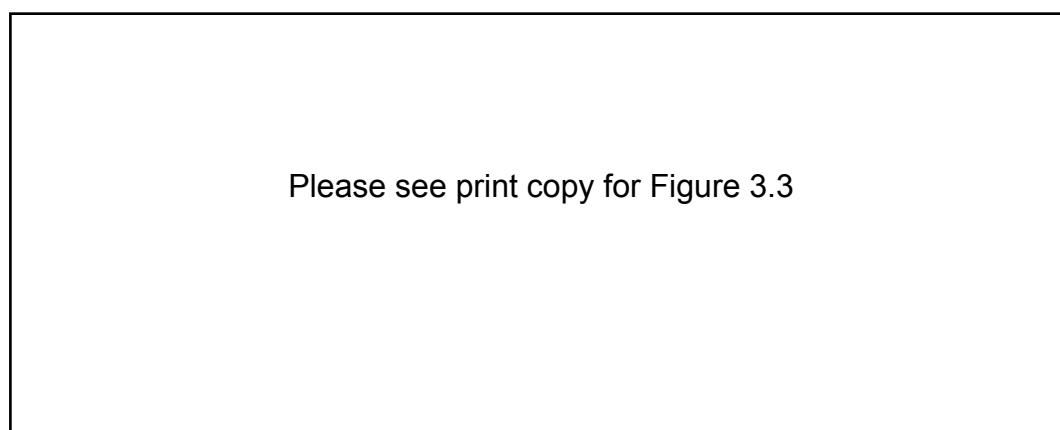
Lave and Wenger (1991) emphasised in their revision of LPP (Wenger, 1998) that communities of practice are not restricted to the apprenticeship model. The terms *task forces*, *focus groups*, *project teams* and *interest groups* have been recently presented in the literature (Lindstaedt, 1996) as interchangeable with the term community of practice. These terms might be viewed as inappropriate applications of the term community of practice, if we strictly interpret Lave and Wenger's earlier work, as each of these groups is formally constituted. Characteristically, a community of practice is formed "by virtue of the relationships between its members" (Hildreth, 2004, p. 40). This is not to say that a project group or task force may not develop into a community of practice during the course of their shared activity. Communities of practice self-select their members and while task forces and project teams disband upon completion of their specific assignment, communities of practice exist for as long as their members are interested in improving their practice and maintaining the community. In this sense, members of the Stage 6 PDHPE community of practice move in and out as they need to access knowledge of a socio-cultural perspective and improve their practice.

Researchers have applied the term community of practice to a wider collection of a specific group of practitioners. For example, Hutchins and Klausen (1991) have used the term community of practice in relation to pilots who discuss their shared knowledge. This essentially introduces layers or tiers of communities of practice: the first being the entire community of pilots; and secondly, the more defined community of pilots who work perhaps for a specific company or who are based together at a particular airport. Clark (1996, p. 101) terms the members of the wider community as an "occupational cultural community".

Clark (1996) further proposes the concept of common ground as the uniting element of a community of practice. Common ground is "the sum of [two people's] mutual, common, or joint knowledge, beliefs, and suppositions" (p. 93). Clark applies this notion of common ground to membership of cultural communities. Common ground is essentially the shared knowledge, beliefs and background of a cultural community. Within a cultural community there are *insiders* and *outsiders*. It is the common ground that assists in differentiating between these members as insiders and outsiders, much

like Lave and Wenger's (1991) notion of legitimate peripheral participation. As newcomers learn the conventions, rituals, rules and language of a community of practice, the established members sanction their legitimate participation. In the broader PDHPE community of practice, newcomers (pre-service teachers) act as legitimate peripheral participants as they learn the culture and language of more experienced members in the overlapping communities of practice. Clark (1996) further proposes that common ground presents the possibility of two tiers of a community of practice: a higher level constituted by members of an occupational cultural community who share like-lived experiences, knowledge, language and background; and a lower level of practitioners in a community of practice. "They may have newcomers, practice-specific jargon, and nicknames. They may have developed strong working relationships and have a common goal for the practice towards which they are working" (Hildreth, 2004, p. 41). Members of the community of practice share experience-specific common ground and knowledge relating to the common interest of the group. This notion of common ground is not unlike Lave and Wenger's (1991) characteristics of mutual engagement and joint enterprise.

It appears then that the term community of practice has been extended. Hildreth (2004, p. 41) proposes that a community of practice be an "umbrella term, covering a range of groups, some of which might have more of some characteristics than others". It is important to consider these emergent definitions and characteristics as they assist in the identification of communities of practice and support their maintenance in order to gain the benefits associated with improving their practice. For the broader PDHPE community of practice, this has implications for designing and implementing professional development opportunities. Figure 3.3 summarises the characteristics of a community of practice. These characteristics support those from the seminal research of Lave and Wenger (1991).



*Figure 3.3. Community of practice characteristics (Hildreth, 2004, p. 41).*

In defining a community of practice, the social interactions of membership needs to be emphasised. A community of practice is not created but evolves from the internal motivation and emerging trusted relationships of a group with a specific practice-related focus. Communities of practice regenerate by replacing their established members with the newcomers who are shifting from peripheral to full participation. They are informally organised and self-regulating entities whose members share *stories* of practice which assist in confirming the identity status of newcomers and old-timers, as well as reproducing and preserving domain knowledge. Finally a community of practice provides a site for the newcomer to learn the practice, the language and conventions of the community by accessing and interacting with established members. A community of practice provides opportunities for a situated learning experience.

### **Cultivating Communities of Practice**

Wenger, McDermott and Synder (2002) propose that there are seven principles for “cultivating” communities of practice. In recognising the significant benefits to both individual members and the entire community of creating and sustaining a community of practice, the following principles need to be considered.

#### **Design for Evolution**

Wenger, et al. (2002) suggest that as communities of practice are not contrived entities but rather self-perpetuating, self-organising and fluid “it is a more a matter of shepherding their evolution than creating them from scratch” (p. 51). It is important to realise that communities of practice draw upon existing professional and personal networks in their creation. These initial connections may draw on existing individuals or rouse new members as the community of practice’s direction alters and refocuses. *Alive* communities are constantly reinventing themselves as the need arises. Designing for this evolution may involve providing physical structures such as creating appropriate meeting spaces, as well as providing social structures such as web bulletins and on-line opportunities that support social and professional interaction and engagement. These structures need to be both virtual and non-virtual to engage members of the community. The key to designing for the evolution of a community of practice is to provide catalysts for the evolution: to recognise what is needed, when it is needed, and how it can be provided to best accommodate the chameleon nature of the community of practice.

### **Open a Dialogue between Inside and Outside Perspectives**

Communities of practice are built on a collective and shared enterprise. Insiders are in a unique position as they are conversant with the inner workings of the community of practice: they can appreciate the particular nuances and issues at the core of the domain. The insider can differentiate between those who are the central players and those who are not. In other words, the insider has an innate knowledge of the finer workings of the community, the social relationships that are being played out in the community and the issues and challenges that face their field. Insiders though may not necessarily recognise the potential or possibilities of their community of practice. It may only be when an outside perspective is applied to the practice that members acknowledge and plan for these imaginings. In this way, the outsider essentially acts as a change agent. However, the outsider needs to hold a degree of legitimacy in the eyes of the central members of the community of practice for meaningful dialogue to be exchanged. The outsider needs to be recognised as a legitimate member of an overlapping community of practice and hold enough credibility to influence the “development of a practice, mobilise attention, and address conflicting interests” (Wenger, 1998, p. 109). The outsider participates in what Wenger (1998) previously identified as brokering.

The act of brokering is complex. The broker undertakes the tasks of translating meaning between the connecting communities of practice, and assisting members to acknowledge the possibilities for alignment between perspectives. Brokering involves multi-membership in communities of practice. The broker uses their membership in more than one community of practice to advantage and essentially transfers some element of one community of practice to another. Brokers are often identified as boundary members of each of the communities of practice to which they belong. They prefer to position themselves at the periphery of practices rather than commit themselves to the core of any one practice. Brokering “requires an ability to carefully manage the coexistence of membership and non-membership, yielding enough distance to bring different perspective, but also enough legitimacy to be listened to” (Wenger, 1998, p. 110).

Brokers participate in boundary encounters that can involve one-on-one conversations with a member of another community of practice; visiting a practice; or between delegations from each of the communities of practice. Boundary encounters allow for negotiation of meaning across communities and an understanding of how the *other side* negotiates meaning within their own community of practice. In this way, members of overlapping communities of practice learn of their practice in relation to other practices and to the world.

### **Invite Different Levels of Participation**

Communities of practice provide multiple levels of opportunities for participation. While some members are centripetal to the operations of the practice, others choose to remain on the periphery because they see themselves as having different roles in the community or have varying levels of interest in the practice. In a community of practice there are three main levels of participation: a core group, an active group, and peripheral members. The core group usually consists of several members who are most often advocates for the community's interests in the public forum. This group is usually constituted by a small number of members who advance the community of practice in their learning agenda (Wenger, McDermott & Synder, 2002). This group, at the heart of the community takes on leadership roles and assists the community coordinator. The next level of participation is an active group who regularly meet and engage in discussion of community's key practices in the field. The largest group of community members are labelled as peripheral. These members rarely participate, preferring to maintain their position *on the sidelines* and view the activity of the core and active members.

Members may shift their positions through these three levels as the focus of the community's practice alters or their interests are stirred or their levels of competence are recognised. In designing community activities, it is important that all members feel like *participating* members of the community of practice regardless of their positioning in the field. "Rather than force participation, successful communities 'build benches' for those on the sidelines" (Wenger, et al., 2002, p.57). This can be achieved by creating opportunities that link peripheral members such as via on-line forums, or one-on-one conversations. Similarly, at times, active members are drawn to the centre or core of the community by taking on limited leadership positions.

### **Develop Both Public and Private Community Spaces**

Opportunities for interactive engagement are important in nurturing or cultivating a dynamic community of practice. In order to share ideas, create possibilities, exchange solutions and develop rapport, opportunities need to be created and supported for members of a community of practice to gather, either face-to-face or electronically. For a community of practice to thrive, be sustained and respond to outside influences, there needs to be a range of public and private events and spaces for engagement. Formal presentations and workshops provide one level of exchange. These opportunities provide members with a chance to "tangibly experience being part of the community and see who else participates" (Wenger, et al., 2002, p. 58). As well as these substantive and formally organised public community events, members need to

participate in the web of relationships of their day-to-day practice. It is these informal discussions that contribute toward the development of relationships within the community of practice and allow members to take risks in exchanging ideas, swapping tips and exploring new ideas, without the perceived pressure of the wider community audience. Phone calls, emails, lunch-time conversations, bulletin notices may all serve as avenues for the community members to spontaneously raise topics and concerns. It is when these informal events are nurtured that the community of practice develops as a substantial and strong network. When this happens members participate more freely and openly in the formal public events because they know each other and feel confident in contributing their ideas and creating new connections with others. There is a reciprocal relationship between public and private events. "The key to designing community spaces is to orchestrate activities in both public and private spaces that use the strength of individual relationships to enrich events and use events to strengthen individual relationships" (Wenger et al., 2002, p. 59).

### **Focus on Value**

The value of a community of practice may not be immediately apparent and the source of value may change throughout the life of the community. Encouraging dialogue between members that identifies the potential value of the community or imagining the possibilities is the key element in designing for value. While benefits of community engagements and practice may not be quantifiable, members learn to recognise who they need to contact for solving different problems, how a solution might be effectively applied, and what technology to access to gather needed data. These benefits may not be able to be captured, codified and stored (Hildreth, 2004); however, their value to the community of practice in shortcutting procedures may be monumental.

### **Combine Familiarity and Excitement**

As communities of practice mature, the relationships between members become familiar and comfortable. Members develop the freedom to candidly explore new possibilities and ask for advice without fear of other members evaluating their competence. This familiarity, nurtured by the network of relationships in a community of practice provides stability for old-timers and newcomers. A dynamic community of practice also needs what Wenger et al. (2002) identify as excitement. This excitement can be created through divergent thinking and interactions with members from overlapping or interconnected communities of practice. For communities of practice to be effective and be sustained there needs to be a balance between familiarity and excitement. The familiarity is the day-to-day rhythms of the enterprise of the members

and the excitement is generated by new projects that instil a sense of adventure in the community members.

### **Create a Rhythm for the Community**

Establishing a rhythm within a community of practice allows members to respond to a pace of events. Ensuring that this pace is acceptable to members is the challenge to cultivating communities of practice. When the pace is too fast, when innovations and change come too quickly, members of a community of practice may feel overwhelmed and frustrated and position themselves on the periphery of the community to re-energise or observe. Similarly, if the pace is too slow the community may become disengaged with the practice and unresponsive to connecting with other members. Special events or key projects provide a break in the regular rhythm of a community.

The rhythm of the community is the strongest indicator of its aliveness. There are rhythms in a community – the syncopation of familiar and exciting events, the frequency of private interactions, the ebb and flow of people from the sidelines into active participation, and the pace of the community's overall evolution. (Wenger et al., 2002, p. 63)

The pace or beat of the community changes in response to the community's needs and evolution. Finding the right rhythm is the key to sustaining a dynamic community of practice.

While it is known that communities of practice evolve naturally, there is a certain amount of design that can assist their development and sustainability. This organisational design needs to acknowledge and support the web of complex interactions that exist in a community of practice and plan for energising and stabilising the community as their ebb of energy and participation fluctuates.

### **Summary**

The three elements mutual engagement, joint enterprise and shared repertoire characterise a community of practice. While communities of practice cannot be contrived; as they develop naturally, certain elements of design can power their evolution and sustain their growth. Cultivating communities of practice, according to Wenger, McDermott, Snyder (2002, p. 64) requires acknowledging the "importance of passion, relationships, and voluntary activities". Energising a community of practice involves voluntary engagement, fostering emerging leadership, and eliciting and nurturing participants.



Chapter Four will address the methodological approaches adopted to investigate the practice and relations of selected members of the broader PDHPE community of practice.

Chapters Five, Six and Seven draw on the theory of communities of practice to explain the practice of PDHPE HSC markers and pre-service PDHPE teachers in relation to the 1999 Stage 6 PDHPE syllabus. Chapter Eight will use the principles for cultivating communities of practice as a framework to assist PDHPE pre- and in-service teachers to respond to syllabus change.

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## Chapter Four

### Weaving the Tapestry of the Tale: The Method Explained

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This chapter is an overview of the approaches selected to investigate the workings of PDHPE HSC markers and pre-service PDHPE teachers within the broader PDHPE community of practice (see Figure 3.1 Chapter Three).

Chapter Four has multiple purposes. In this chapter I will:

- recount and justify the methodological decisions made in this study;
- explain the data collection and analysis techniques;
- discuss considerations of validity;
- situate myself in the study as a participant researcher; and
- present ethical considerations associated with the conduct of the study.

#### **Methodological Decisions**

As outlined in Chapter Two, this study originated from my experiences in and observations of the broader PDHPE community, during HSC marking, at professional development seminars, network meetings and as a secondary PDHPE teacher, consultant and tertiary educator. In order to investigate the complexities of the formation and workings of the community of Stage 6 PDHPE teachers and pre-service PDHPE teachers the research design employed a mixed mode approach. This approach utilised a range of data collection methods including surveys, semi-structured interviews, participant observation, field notes and the examination of artefacts which represented the historical voice of the broader PDHPE community of practice.

The questions posed in this research required both quantitative and qualitative methods of inquiry to explore possible relationships between demographic variables and HSC options selected, examine the social reality of participants' professional identity and explore the implications of this identity formation for (re)producing the culture of the community of practice. Combining these two approaches in a "mixed method" research design provided the opportunity for a detailed view of the complexities of the case. Gay, Mills and Airasian (2006) suggest that the purpose of mixed methods research is to "build on the synergy and strength that exists between quantitative and qualitative research methods in order to understand a phenomenon

more fully than is possible using either quantitative or qualitative methods alone” (p. 490).

In this study, the use of surveys as a data gathering tool data provided an efficient and expedient method of gathering data from a broad and representative sample of the participants in the community of practice, identified predictable variables relating to HSC options selected and the findings of the inquiry informed the need for and the design of the qualitative investigation. The interviews allowed for descriptive stories to be told by the members of the community of practice and illuminated the relationships and engagements operating within the emerging community of practice. Adopting the qualitative method provided opportunities for the acquisition of data containing contextual information and an insight into human behaviour (Guba & Lincoln, 1994). While traditionally these two methods have been viewed as oppositional, their complementarity assisted in providing a fuller depiction of the PDHPE community of practice and the factors that influenced their selections of Stage 6 syllabus content. Using quantitative methods alone would fail to address the integral social construct of the community of practice and not allow for a rich portrait of members’ experiences to unfold. Using only qualitative methods would not avail me the opportunity to investigate sufficiently the scope of perceptions and behaviours of participants in the community of practice. The two methods, of qualitative and quantitative research, worked cooperatively to offer multiple insights into the social reality of the broader PDHPE community of practice.

The task of investigating the formation and workings of a community of practice was complex. Therefore I proposed the following research questions as a scaffold for exploring how the communities of practice of PDHPE HSC markers and pre-service teachers could be supported to engage with the revised ideological underpinnings of the Stage 6 PDHPE syllabus.

## **Research Questions**

In order to guide this thesis I formulated the following research questions:

1. What factors influence the (re)production of the professional identity of the community of practice of PDHPE HSC markers?
2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?
3. What factors influence pre-service PDHPE teachers’ syllabus selections?

4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

### **Using a Case Study as a Mode of Inquiry**

This research is a case study of a community of practice. A case study is a generic term that is adopted when investigating an individual, group, or phenomenon that claims to retain a high degree of faithfulness to real-life processes through the collection of extensive and rich data (Sturman, 1997). A case study allows for an in-depth examination of a particular phenomenon and the participants are studied in context with an emphasis on gaining an holistic understanding of their experience (Cohen, Manion & Morrison, 2001; Denzin & Lincoln, 2000; Yin, 2003). In this instance, the participants of the case study are members of the broader PDHPE community of practice mutually engaged in their joint enterprise of studying, teaching and marking Stage 6 PDHPE. In this study, the boundaries are examined by investigating the parameters of the broader community of practice and by identifying the central, active and peripheral members of the community of practice of PDHPE HSC markers.

In order to investigate the formation of the broader PDHPE community and its members' responses to syllabus change, a framework was constructed for a progressive study consisting of three groups:

- The community of practice of PDHPE HSC markers;
- Representatives of "discourse clusters" within the PDHPE community of practice of HSC markers; and
- The pre-service teachers who represent legitimate peripheral participants in the broader PDHPE community of practice.

The three groups identified above were chosen based on their ability to reflect the identity and workings of both the broader PDHPE community of practice and be representative of centripetal and peripheral members' engagements with the pre-existing and revised Stage 6 PDHPE syllabus. This type of research can be described as an intrinsic case study (Stake, 1994). That is, the case is examined not to build theory or understand some generic phenomenon, but "it is undertaken because ... the researcher wants better understanding of this particular case" (Denzin & Lincoln, 2000, p. 437). In this instance, I wanted to explore the broader PDHPE community of practice and provide a rich description of this case, with the aim of understanding what is important about the case within its own world (Cohen, et al. 2001). Learning how the

participants in the community of practice adopted a socio-cultural perspective was one rationale for adopting the use of a case study.

In case study research, data are emergent. Peshkin (1988, p. 559) suggests that “what the researcher learns from data collection at one point in time often is used to determine subsequent data collection activities”. This was indeed the case in this research, as the results of the survey investigation determined the need for further data gathering tools of a qualitative nature. “Because case studies provide fine grain detail they can also be used to complement other, more coarsely grained – often large scale – kinds of research” (Cohen, et al. 2001, p. 183). In this study, the results of the large-scale survey of Stage 6 PDHPE HSC markers informed the design of the semi-structured interviews.

While case studies have traditionally been associated with the scientific or quantitative paradigm, Hitchcock and Hughes (1995, p. 316) suggest “that case studies are distinguished less by the methodologies that they employ than by the subjects/objects of their inquiry”. Case study research was employed in this study to investigate the encompassing population of the PDHPE community of practice as well as closely examine the peculiarities of the community of practice.

When selecting a case, some researchers advocate that it is essential that the case is largely representative of other cases to which similarities and generalisations may be drawn. However, Denzin and Lincoln (2000, p. 439), highlight that each case has “important atypical features, happenings, relationships and situations”. Whilst in Chapter One I examined the responses of teachers from other Key Learning Areas to syllabus change (Beavis, 2001; Hall, 1997; Harris 2003; Reynolds, 2001; Simpson, 2004) the PDHPE community of practice has unique characteristics that have been influenced by its socio-cultural, political and institutional history. Thus, an examination of these factors may produce important implications for the professional development and tertiary training of its members. Denzin and Lincoln (2000) further suggest that each case has its own history and particularities and while researchers may generalise between, or to other cases, it may be the particularity or the intrinsic nature of the case that is of research significance.

In this study, the case was constituted by a range of participants in three groups: the community of practice of PDHPE HSC markers, the discourse clusters within this community, and the pre-service teachers who were legitimate peripheral participants. Using multiple groups provided the opportunity for data to be analysed within and between groups. Regardless of whether the purpose of analysis is replication or

contrast, multiple case studies are “considered more compelling, and the overall study is therefore regarded as more robust” (Yin, 2003, p. 52).

The case study researcher is confronted with decisions regarding how long the complexities of the case should be studied. This was a difficult decision as to when to cease collecting data. In this study, I collected data over a period of seven years, as I needed to observe the emergence and continuance of the PDHPE community of practice. During its evolution, I gathered artefacts and interviewed members, as the community of practice drew upon its existing professional and personal networks, changed the dynamics of members’ relationships, established its rhythm, and refocused and reinvented itself in response to the revised Stage 6 PDHPE syllabus requirements. I rationalise the longevity of this study by suggesting that I would not have been able to gain the depth of understanding of the community of practice’s members and engagements without participating in this extensive journey. Table 4.1 represents an audit trail of data collection.

*Table 4.1.* Audit trail of data collection from the research of a community of practice

Year	Key events and my role as participant researcher	Data collection
1998	<ul style="list-style-type: none"> <li>Year before “new” Stage 6 PDHPE syllabus released</li> <li>I was a member of the new Stage 6 PDHPE syllabus writing team (wrote HSC Option 1: <i>The Health of Young People</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Surveyed 160 PDHPE HSC markers</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – HSC Option selections and marker identities</li> <li>Evaluated Report of 1994 Stage 6 PDHPE syllabus</li> </ul>
1999	<ul style="list-style-type: none"> <li>Release of “new” Stage 6 PDHPE syllabus</li> <li>I was a designer and presenter of <i>New Meanings of Health and Physical Activity</i> professional development workshops at six locations throughout NSW. This was a cross-sectoral initiative.</li> <li>I was appointed as a Senior Marker at NSW BOS PDHPE HSC marking. I was responsible for leading a marking team for <i>The Health of Young People</i> and <i>Equity and Health</i> HSC Options.</li> </ul>	<ul style="list-style-type: none"> <li>Collected field notes and teacher evaluations of professional development workshops</li> <li>Gathered professional development workshop teacher information booklets</li> <li>Audio-taped the NSW BOS PDHPE Inspector’s Launch of the new syllabus</li> <li>Observed marker allocation to HSC Option questions at HSC Marking Centre</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Collected NSW BOS HSC marker &amp; senior marker identity – system, sex and option marked</li> <li>Personal communication with NSW BOS Supervisor of Marking HSC PDHPE re: marker requests to mark specific options</li> </ul>
2000	<ul style="list-style-type: none"> <li>First year of implementation of Preliminary Course of new Stage 6 PDHPE syllabus</li> <li>I was again appointed as a Senior Marker at NSW BOS PDHPE HSC marking</li> </ul>	<ul style="list-style-type: none"> <li>Surveyed 120 final year pre-service teachers from three NSW tertiary institutions</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Attended the PDHPE Teachers’ Association Annual Conference and gathered program artefacts and attendance</li> <li>Personal communication with NSW BOS Supervisor of Marking HSC PDHPE re: marker requests to mark specific options</li> </ul>

<b>Year</b>	<b>Key events and my role as participant researcher</b>	<b>Data collection</b>
2001	<ul style="list-style-type: none"> <li>First HSC for new Stage 6 PDHPE syllabus</li> <li>Appointed as a Senior Marker at NSW BOS PDHPE HSC marking</li> </ul>	<ul style="list-style-type: none"> <li>Interviewed 20 PDHPE HSC markers from 1998 sample</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Attended the PDHPE Teachers' Association Annual Conference and gathered program artefacts and attendance</li> <li>Personal communication with NSW BOS Supervisor of Marking HSC PDHPE re: marker requests to mark specific options</li> </ul>
2002	<ul style="list-style-type: none"> <li>Designed and presented professional development workshops on Stage 6 PDHPE syllabus implementation for CEO and AIS</li> <li>Appointed as a Senior Marker at NSW BOS PDHPE HSC marking</li> </ul>	<ul style="list-style-type: none"> <li>Collected 35 final year pre-service teachers' responses to on-line forum questions regarding Option selections</li> <li>World Wide Web search of NSW Tertiary Institutions to examine PDHPE course structures</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Attended the PDHPE Teachers' Association Annual Conference and gathered program artefacts and attendance</li> <li>Personal communication with NSW BOS Supervisor of Marking HSC PDHPE re: marker requests to mark specific options</li> </ul>
2003	<ul style="list-style-type: none"> <li>Appointed as a Senior Marker at NSW BOS PDHPE HSC marking</li> </ul>	<ul style="list-style-type: none"> <li>Collected field notes from observations at HSC Marking Centre – marker identities and comments re: the new syllabus</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Attended the PDHPE Teachers' Association Annual Conference and gathered program artefacts and attendance</li> </ul>
2004	<ul style="list-style-type: none"> <li>Appointed as a Senior Marker at NSW BOS PDHPE HSC marking</li> </ul>	<ul style="list-style-type: none"> <li>Collected field notes from observations at HSC Marking Centre – marker identities and comments re: the new syllabus</li> <li>Collected NSW BOS PDHPE HSC candidature statistics – Option selections</li> <li>Personal communication with NSW BOS Supervisor of Marking HSC PDHPE re: marker requests to mark specific options</li> </ul>

### **Data Collection and Analyses**

This study draws on multiple sources of core and supporting data. “A major strength of case study data collection is the opportunity to use many different sources of evidence” (Yin, 2003, p. 79).

Table 4.2 Research design

Research Question/s	Data collection methods	Participant groups	Results presented in chapter/s
<p>1. What factors influence the (re)production of the professional identity of the community of practice of PDHPE HSC markers?</p> <p>2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?</p> <p>4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?</p>	Survey of 103 PDHPE HSC markers	Community of practice of PDHPE HSC markers	Five
<p>4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?</p>	Interviews with 25 purposively-selected PDHPE HSC markers	Representatives of discourse clusters within the PDHPE community of practice	Six
<p>3. What factors influence pre-service PDHPE teachers' syllabus selections?</p> <p>4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?</p>	Survey of 120 Pre-service PDHPE teachers	Representatives of the legitimate peripheral participants in the broader community of practice	Seven



## **Data Source One: Surveying the Community of Practice of PDHPE HSC Markers**

### ***Site and Participants***

In 1998, the year before the revised Stage 6 PDHPE syllabus was released by the NSW BOS, I chose to survey the *community of practice* of PDHPE HSC markers (see Chapters One and Two). I define this community of practice as those teachers who were engaged in teaching the Stage 6 PDHPE syllabus in NSW secondary schools and were selected to mark the PDHPE HSC examination.

I selected HSC marking as a site for exploration for several reasons. First, as an HSC senior marker I had access to the site allowing me the opportunity to observe the community of practice in action in their own social world (Cohen, Manion & Morrison, 2001). Second, at the HSC marking site, Stage 6 PDHPE teachers most visibly enacted their engagement with the 1994 Stage 6 PDHPE syllabus in their selections of questions to mark. In my role as senior HSC marker and participant researcher, I was in a position to view the number of markers allocated to each syllabus question, allowing me to identify the preferred options taught by Stage 6 teachers, and therefore explore the discourse clusters operating within the community of practice. Students' responses to particular option questions in the HSC examination act as a reflection of teachers' selections of the options from the existing syllabus choices. The number of markers allocated to each question was representative of the percentage of the candidature who selected those option questions to study.

As a site for inquiry, the one NSW HSC marking centre provided access to a broad range of members from the Stage 6 PDHPE community of practice. The NSW BOS selects HSC markers using an application process based on established criteria such as years of teaching experience, geographic location, gender, education system and membership of examination committees and syllabus writing teams. The administration of a survey in this setting would result in a high-percentage return rate, be less intrusive than a process of time-consuming interviewing, and include a sample which was purposively selected and assist in answering the research questions.

In 1998, the BOS' criteria for inclusion in HSC marking were teachers:

- with a minimum of four years teaching experience;
- with experience of the HSC PDHPE course within the previous three years;
- from both rural and urban schools; and
- from the Department of Education and Training (75%), the Association of Independent Schools and Catholic Education sector schools (25%). These percentages were consistent with the respective numbers of candidates from each educational sector/system

(Hewitt, P., NSW Board of Studies PDHPE Inspector, personal communication, November 12, 1998).

Markers were also selected based on their willingness to be involved and their experience and expertise in marking particular HSC questions. In 1998, 160 PDHPE markers met the criteria and were selected to mark the HSC. It is important to note that when this study was undertaken, PDHPE was allocated as a *Day Marking* subject. This had implications for the participant sample, as it increased the representative proportions of markers from rural schools and first time markers. Principals in urban areas often fail to release staff to day-mark while principals from rural schools view day-marking as a professional development opportunity for their teachers (Hearne, D., PDHPE Supervisor of Marking, personal communication, 1998).

The HSC marking site allowed me to explore the variables that shaped the syllabus option selections by the community of practice of PDHPE HSC markers. As well as members of the community, several PDHPE academics and regional consultants formed part of the HSC marking sample. As previously defined in this chapter, these HSC markers were not included as members of this community of practice, as they were not currently teaching Stage 6 PDHPE in NSW secondary schools. The sample is representative of the broader Stage 6 PDHPE community of practice, as it includes a wide range of demographics which constitute this community and highlights one of the Stage 6 PDHPE community's practices: preparing students for and marking the PDHPE HSC examination.

### ***Survey Design and Justification***

The survey questions were designed with the aim of:

- identifying the preferred syllabus options selected by the PDHPE HSC markers;
- examining variables that influenced the HSC markers' engagement with and selection of options of the Stage 6 PDHPE syllabus; and
- exploring the avenues the HSC markers would access to learn about the soon-to-be released revised Stage 6 PDHPE syllabus.

The survey was planned to assist in creating a portrait of the community of practice of PDHPE HSC markers and identify the conditions that were conducive to responding to syllabus change.

In general, surveys act as an inexpensive and time-efficient means of gathering data from a broad sample of participants. The major purpose of surveys is to describe the characteristics of a population: in this case the PDHPE community of practice of HSC

markers. Essentially, a survey assists researchers to discover how “the members of a population distribute themselves on one or more variables” (Fraenkel & Wallen, 2006, p. 398). The variables in question in this study included age, gender, years of teaching experience, geographic location of school, sex of students at school, educational sector, professional development attended, tertiary institution attended, and most recent tertiary qualifications. The purpose of the survey was to examine the possibility of identifying predictor variables that influenced the participants’ preference for engaging with a particular HSC option.

Surveys can vary in their types and levels of complexity including those that are descriptive and explanatory. Descriptive surveys aim to approximate as closely as possible the “nature of existing conditions, or the attributes of a population” (Burns, 2000, p. 566). As the sample size was sufficiently large, potentially 160 participants, I designed the initial demographic questions in the survey as structured, closed and requiring mainly numerical responses by the participants. Questions one through to eight of the survey were designed to gather demographic information from the participants (Appendix B). Including demographic questions within the survey assisted in the construction of a picture of a *representative* member of the community of practice of PDHPE HSC markers. As the survey had multiple aims, the design also needed to include explanatory questions. Explanatory questions provided the opportunity to test hypotheses about the independence of categorical variables and search for relationships (Burns, 2000). In this case, by isolating independent variables such as gender, years of teaching experience, tertiary institution attended and involvement in professional development opportunities, I could test the significance of difference in the factors that influenced the community of practice’s engagements with particular areas of the Stage 6 PDHPE syllabus.

The descriptive elements of the survey assisted in constructing a portrait of the nature of the community of practice of PDHPE HSC markers and what conditions were conducive to responding to syllabus change. The design of the survey further assisted me to identify variables that positioned members of the community of practice along the human movement sciences/socio-cultural continuum. That is, a continuum that classified HSC option selections as either focused on human movement or a socio-cultural perspective. This continuum highlighted the discourse clusters operating within the community. For example, questions nine to fifteen of the survey required participants to identify:

- The option/s that had been taught at their current school since the inception of the PDHPE HSC course;
- The reasons why this/these options were taught;
- The process employed by teachers and/or students to select these options; and
- Their preferred ranking of options if they were required to teach all six options.

As the survey was self-administered there was no opportunity for clarifying the meaning of a question or for interviewer probing. Thus, there was a need to ensure that the survey structure was clear, that the questions were self-explanatory, and allowed participants to reply in a detailed way. Therefore, the survey was comprised of a range of closed, and scaled items that allowed for ease of coding, a quick response and open-ended items that allowed for flexibility for participants to add further depth to responses if needed.

A pre-test or pilot of the survey was conducted to reveal the possibility of “ambiguities, poorly worded questions, questions that were not understood and unclear choices” (Fraenkel & Wallen, 2006, p. 405). The survey was piloted by ten PDHPE teachers who had experience teaching the Stage 6 syllabus and marking the HSC examination and with whom I had regular professional contact. This was a convenient sample, constituted by five females and five males, who later formed part of the research sample. Wiersma (1995) states that surveys should be piloted and this should be “done with individuals similar to the intended respondents” (p. 176). I chose these ten participants as I had previously participated in educational research with these colleagues and felt comfortable discussing possible changes needed to the survey design. As a result of this piloting process, further categories were added to several of the questions to ensure that categories were mutually exclusive and exhaustive.

### *Survey Administration*

In July 1998, I contacted the NSW BOS Research Officer to gain permission to administer the survey to HSC markers. Approval was gained and all 160 markers were invited to participate in the survey via an announcement from their Senior Markers at each marking table. Surveys were distributed to each HSC marker via their “in tray”. Participants’ responses to the survey were anonymous as they placed their completed survey into a sealed envelope and secured them in the “survey deposit box” at the supervisor of marking’s desk. A tear-off slip was attached to the survey so markers could volunteer to be interviewed as a further data gathering method. Markers were advised that completion of the survey was optional and that by completing the survey they were providing consent for their responses to be used in the study. Markers were

further advised that completion of the survey was only to be undertaken during meal breaks or after marking hours, in an effort to avoid interference with the HSC marking process.

#### *Return Rate*

Of the possible 160 PDHPE HSC marker participants, I excluded 11 participants as they were not currently teaching the Stage 6 PDHPE syllabus in *school settings*, and did not adhere to my definition of the community of practice previously stated in this chapter. These markers were either academics, or PDHPE systemic consultants. Therefore of the possible 149 remaining markers, 103 markers completed the survey, representing a 69.1% return rate.

As a progressive study, the results of the survey informed the design of questions for the semi-structured interviews and the choice of purposively selected representatives of the discourse clusters in the PDHPE communities of practice of HSC markers and pre-service teachers. The findings from this stage of the investigation will be addressed in Chapter Five.

### **Data Source Two: Surveying the Legitimate Peripheral Participants**

#### ***Site and Participants***

In 2000, one year after the release of the 1999 Stage 6 PDHPE syllabus, I surveyed final year pre-service PDHPE teachers from three NSW tertiary institutions. The participants selected at each of these NSW institutions had completed a subject relating to the 1999 Stage 6 PDHPE syllabus in the previous semester. From the perspective taken in this thesis, these participants represented the legitimate peripheral participants (LPP) in the broader PDHPE community of practice and would graduate at the completion of 2000 and perhaps be employed to teach the new Stage 6 PDHPE syllabus in 2001 (the first year of implementation). These participants were surveyed in order to differentiate between the orientations of PDHPE HSC markers and these soon-to-be beginning teachers.

The tertiary institutions were selected to represent the available PDHPE teacher training course structures in NSW. Two institutions operated using a *three plus one - end on* degree (Bachelor of Arts/Health Science and a Graduate Diploma in Education) and one institution offered a four year integrated program (Bachelor of Education PE and Health). Two of the universities were in the Sydney Metropolitan area and one university was designated as a regional university. While all of the universities were located in urban areas, their university admission index indicated a different student demographic. The tertiary programs selected covered the most common forms of

PDHPE teacher education in NSW, while at the same time providing very disparate experiences for their students. All three institutions differed in the compilation of subjects offered in their PDHPE teacher education degrees. A greater emphasis was placed on the human movement science subjects in the two universities offering the three plus one – end on degree, while the integrated Bachelor of Education degree included a greater percentage of personal and community health, sociology and pedagogical subjects (University website course search, June, 2000).

### ***Survey Design and Justification***

The survey questions were designed with the aim of:

- identifying PDHPE pre-service teachers' preferred HSC options selections;
- exploring the pre-service teachers' understandings of a socio-cultural perspective of health and physical activity;
- critiquing PDHPE pre-service teachers' tertiary preparation for understanding, planning for and implementing a socio-cultural perspective of health and activity;
- examining the possible impact of professional socialisation on the pre-service teachers' preferred HSC options.

The data generated from the survey would assist in answering the research questions:

3. What factors influence pre-service PDHPE teachers' syllabus selections?
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

The survey was comprised of closed, open-ended and scaled items. The closed and scaled questions allowed for ease of response and researcher coding while the open-ended questions provided opportunities for pre-service teachers to elaborate on their responses. Initial questions were designed to gather demographic information which would be analysed for possible predictor variables of HSC option preference. The survey was piloted with a Graduate Diploma of Education (Secondary PDHPE) class at the tertiary institution at which I was employed in 2000. These participants were selected as a convenience sample as I was teaching that cohort of students. The participants were comparable to those who would be invited to respond to the final survey. Twenty three participants piloted the survey and provided feedback regarding the design and clarity of the questions. As a result of this feedback, several ranking questions required more explicit instructions for respondents. This adaptation was included in the final survey.

### *Survey Administration*

At each tertiary institution selected, I contacted a PDHPE colleague to invite their final year cohorts to form part of the research sample. In each of the three institutions, the academics were willing to distribute the surveys during a PDHPE tutorial that they were conducting during spring semester. Each academic was sent sufficient copies of the survey for their final year cohort, participant information sheets and a script to read to their students regarding the nature and purpose of the research and issues of participant confidentiality and withdrawal from the study. Once completed, the surveys were sealed in an envelope by a peer-selected student, and returned via registered post.

### *Return Rate*

Of a possible 152 pre-service teachers across the three tertiary institutions, 120 completed responses were returned via mail. This represents a 78.9% return rate. The results of these data are presented in Chapter Seven.

### **Data Sources One and Two: Survey Data Analysis**

Both the PDHPE HSC marker survey and the pre-service teacher survey were analysed using the same statistical procedures of frequency tables, Chi Square and Chi Square Automatic Interaction Detector (CHAID). These analyses are described in further detail below.

### ***Chi Square***

The descriptive data generated from the surveys was reported in discrete categories and therefore treated as nominal data. The data were analysed using *Statistical Program for Social Sciences* (SPSS) software and the statistical analysis methodology employed Chi Square. Chi square, symbolised as  $X^2$  is “a simple non-parametric test of significance suitable for nominal data where observations can be classified into discrete categories and treated as frequencies” (Burns, 2000, p. 166). Essentially the Chi square test is based on the comparison between expected frequencies and actual, obtained frequencies. If the obtained frequencies are similar to the expected frequencies then the conclusion is that the groups do not differ significantly. The test examines the independence or association of frequency counts in various categories (Burns, 2000). The Chi square non-parametric test can also be used when making comparisons between groups that differ in size (Verma & Mallick, 1999).

Cross tabulations, another application of Chi square with paired observations, was used to analyse data as I wished to investigate the presence or absence of a

relationship between the multiple variables present in the data set (Burns, 2000). In this study, I wished to determine whether there was a relationship between the multiple demographic variables (independent variables) and preferred option selections (dependent variable).

These paired observations (for example, teaching experience and HSC option selected as first preference) were recorded in two-way contingency tables and the Chi square procedure tested for independence of the row and column variables. A null hypothesis was constructed for each table. For example, there was no significant association between age and HSC marker option selected. In order to measure the *degree of association* in each of the contingency tables, Phi and Cramer's V were used to assess the strength of the relationship between row and column variables. Cramer's V was the most appropriate measure of effect size in this study as cells contained more than two levels and therefore each of the phi values were rescaled to range between 0 and 1.

### ***Cross Tabulations***

Cross tabulations were employed to investigate associations between the data included in rows and columns. Data were recorded using contingency tables and entered into mutually exclusive categories. Some cell categories contained small frequencies, therefore several category variables were combined to fulfil the Chi square conditions of use (Burns, 2000). The cells were combined in relation to the previous coding process of those that were identified as having a human movement sciences perspective and those with a socio-cultural perspective.

### ***Chi Square Automatic Interaction Detector (CHAID)***

The results of each of the cross tabulations were further investigated using Chi Square Automatic Interaction Detector (CHAID). CHAID was applied to the data set to determine possible predictors of the HSC option most preferred. CHAID "divides a population into two or more distinct groups based on categories of the best predictor of a dependent variable" (Magidson, 1992, p. 3). It proceeds to split each of the groups into subsequent mutually exclusive and exhaustive sub-groups based on other predictor variables. This splitting process continues until all the statistically significant predictor variables are found. CHAID displays the sub-groups or segments using a tree diagram that succinctly summarises the output. The sub-groups are formed using a dependent variable as a criterion. Given the large number of independent variables in this study, it was necessary to protect against chance significant cross tabulations. Therefore to reduce the likelihood of Type I error a Bonferroni adjustment was applied at the 0.05 level. The CHAID analyses



attempted to predict the independent variables that influenced participants' selections of HSC options.

The findings from the survey data relating to the PDHPE HSC markers is detailed in Chapter Five, while the results of the survey of pre-service teachers is presented in Chapter Seven.

### **Data Source Three: Interviewing the Members of the Discourse Clusters**

#### ***Site and Participants***

As a further source of data, I employed semi-structured interviews with the aim of generating an epistemological conversation between the interviewer and the participants. The purpose of the interviews was to identify the forces that shaped PDHPE HSC markers' understandings of the 1999 syllabus and their preferences for PDHPE HSC options.

The results of the PDHPE marker survey (Data Source One) informed the selection of the participant sample in this phase of the research. Fifty-six HSC markers completed the tear-off slip attached to their HSC marker survey, indicating their willingness to be interviewed as a further component of the study. From this group interviewees were selected using a form of non-probability sampling: that is, purposive sampling. Purposive sampling "allows researchers to handpick the cases to be included in the sample on the basis of their judgement of their typicality. In this way, they build up a sample that is satisfactory to their specific needs" (Cohen, et al., 2001, p. 103). This selectivity of targeting a particular group allowed me to gather a set of participants that represented a sample inclusive of those with a preference for teaching and marking particular PDHPE HSC Option questions, and those from differing:

- age demographics,
- educational systems,
- genders,
- geographic locations of their current teaching placement,
- professional qualifications,
- years of PDHPE teaching experience, and
- involvement in Stage 6 PDHPE professional development.

Most importantly, purposive sampling allowed me to gather data from PDHPE HSC markers with differing understandings of and engagements with the Stage 6 PDHPE syllabus. While purposive sampling admittedly cannot be used for generalising to the

wider population, the sample of PDHPE HSC markers was sufficiently representative for the purposes of this study of the community of practice of PDHPE HSC markers.

### ***Interview Design and Justification***

Data source three was telephone interviews as they allowed the interviewer to select participants from dispersed geographical locations and were significantly more cost effective than travelling to these locations. Gay, Mills and Airasian (2006) identify various advantages of telephone interviewing including the ability to collect and summarise data in a single location and the advantage of being able to cost-effectively interview large samples. Telephone interviews are a common research practice. However, a difficulty with telephone interviewing is the loss of data from not being able to view participants' gestures, facial expressions and body language. Furthermore, "telephone interviews require a clear set of questions and training for the interviewer" (Gay, Mills & Airasian, 2006, p. 173). In this study, semi-structured interviews were chosen as they acted as more of a guided conversation and allowed the interviewer more flexibility to probe and sequence the interview as needed. Rubin and Rubin (1995, in Yin, 2003, p. 89) suggest that "although you will be pursuing a consistent line of inquiry, your actual stream of questions in a case study interview is likely to be fluid rather than rigid". Taking this suggestion into account, I designed an interview guide of questions that could be presented to participants in a friendly, conversational and flexible manner.

In an attempt to safeguard the authenticity of interviewee responses, the interviews were conducted by a research assistant. I made this decision, as each of the interviewees was knowledgeable of my support for a socio-cultural perspective of health and physical activity. I had been a Senior HSC marker of the socio-cultural options for several years and this may have influenced their comfort and responses. Like me, the research assistant was female, a PDHPE tertiary educator, had experience teaching PDHPE in secondary schools and had published in the area of PDHPE. While the participants were aware that their comments would be returned to me, I felt that not being the interviewer would assist them to speak freely. Pseudonyms were applied to each participant's transcript to ensure anonymity.

Five pilot interviews were conducted by telephone as this provided the interviewer with the opportunity to practise her telephone interviewing skills. Telephone interviewing can be difficult, as facial and bodily gestures are not witnessed by the interviewer and voice intonations can be difficult to transcribe and interpret (Cohen, et al., 2001). Problems associated with communicating freely with a stranger on the telephone and arranging mutually suitable times for the interview dialogue to occur

proved difficult in this study. Preliminary calls were made by the interviewer to each participant to arrange a suitable time for the interview to be undertaken. However, on several occasions, these times needed to be re-negotiated with the participants. Also, the interviewer quickly learned that she needed to have an array of prompts to re-energise the interview as some participants found it rather confronting to conduct an interview by phone and tended to freeze midway through a conversation. This medium, however, proved convenient and time efficient as several of the interview sample were HSC markers from distance rural locations.

### *Interview Administration*

The interviewer initially contacted twenty HSC markers by telephone and invited them to be interviewed. Of the twenty HSC markers initially approached, all agreed to be interviewed. Each interview commenced with an introduction, exchange of pleasantries and flowed to the interviewer gathering non-obtrusive demographic information of each participant. The preliminary interview questions focused on the participant's role in the PDHPE faculty, teaching experience, tertiary engagement and professional development attendance. The purpose of these questions was twofold. Firstly, it allowed the interviewer to gain some background information about the participants' professional and intellectual experience and secondly, to attempt to make the participants feel comfortable responding to questions that were not viewed as 'difficult' or a 'trick' or to 'see what I know'. The purpose of further questions was to explore the way that participants had engaged with certain aspects of the syllabus and the influences that had shaped their understandings of the syllabus. In most instances, interviews were between forty-five minutes and one hour in duration. This allowed sufficient time for the participants to relax and feel comfortable and for the interviewer to engage the participants in dialogue that was meaningful and of value to the study.

Although I had devised a set of open-ended questions to form each interview it became apparent from feedback from the interviewer after the pilot interviews that the participants often engaged in 'lateral' dialogue and once immersed in conversation often spoke on tangents or digressed from the questions. At first I thought that these were merely wasted sections of transcripts, and suggested that she develop strategies to manipulate the participants' talk to re-engage them with the questions. However, later I became to realise that the participants had actually demonstrated their professional beliefs and values in relation to the syllabus, in their lateral digressions as they had spoken of their favourite topics and shared genuine beliefs and values and that they felt comfortable and not the least as though they were 'under the microscope'. These digressions were included in the audio-tapes and transcribed.

With the participants' permission, each of the telephone interviews was audio-recorded using a speaker phone and tape recorder. All interviews were transcribed by the research assistant who conducted the interviews and while this provided a permanent data source in the form of audio-recordings, segments of some of the interview recordings were difficult to hear and transcribing posed a difficult task. At a later time, I contacted several of the participants to clarify the meaning of segments of their transcripts. This proved extremely fruitful as many of those I contacted engaged in further conversations regarding "their journey and struggles" as one participant described it, of implementing the Stage 6 syllabus. During these follow-up conversations, with the participants' permission, I used notes to record key phrases and personal observations (as much as is possible when using a telephone interview) relating to participants' responses. In some cases, participants were most concerned that their interview responses were 'correct' or 'helped me' or 'gave me the right answers or were what I wanted to hear'. In one case, the participant remarked 'tell me what you wanted me to say and I'll fix it'. As such, my fears of being a 'well known' practitioner and thus my decision to use a research assistant to conduct the interviews were validated.

#### *Analysing the Interview Data*

As previously stated each of the interviews was audio-taped and transcribed. I decided to identify key themes within each interview (intra-textually) and across interviews (inter-textually). Intra-textual analysis of interview data involved placement of units of meaning (i.e., quotes) into theme labels and provisional categories (Maykut & Morehouse, 1994). For example, the following unit of meaning was categorised into the theme label of *understandings of a socio-cultural perspective of health and physical activity*:

I mean, the way I understand it [a socio-cultural perspective], it's looking at the whole range of social and cultural factors that impact on the decisions people make about their health. So it's not as simple as saying 'you've made a poor decision so therefore it's your fault'. I think it's trying to get them to be a lot more appreciative of the social and cultural factors and why there's not equal opportunity for everyone.

Theme labels were then organised into provisional categories. For example, *understandings of a socio-cultural perspective of health and physical activity* and *engagement with syllabus* were organized into the category *professional identity*. This

process continued until no further theme labels remained, therefore it was assumed that saturation had been reached. Inter-textual analysis of the interview data involved the comparison of categories across interviews in order to establish a representation of the overall themes.

Kerlinger and Lee (1970) define coding as “the translation of question responses and respondent information to specific categories for the purpose of analysis” (p. 607). As a secondary component of this coding process, I created tables that collated examples of common themes from each of the participants’ transcripts and aligned each of the identified themes with the research questions. As there were only twenty-five interview transcripts I decided to code the data manually rather than use computer software such as NVIVO. The findings from the interview data are represented in Chapter Five.

#### **Data Source Four: Artefacts**

Artefacts collected in this study were gathered from multiple sources. Burns (2000, p. 469) states that “the use of multiple sources is the major strength of the case study approach...

Multiple sources allow for triangulation”. Artefacts are useful as they offer tangible evidence of a case’s activities, actors’ interactions and relations.

Artefacts that contributed toward the compilation of this research included:

- statistical data from the NSW BOS and DET;
- field notes recorded in response to observations at the HSC marking centre;
- the 1994 and 1999 Stage 6 PDHPE syllabuses;
- the NSW BOS PDHPE Inspector’s Launch Address of the 1999 Stage 6 PDHPE syllabus;
- the NSW BOS Evaluation Report of the 1994 Stage 6 PDHPE syllabus;
- programs from annual PDHPE Teachers’ Association conferences and other professional development activities;
- NSW tertiary institution websites relating to PDHPE teacher training course structures; and
- work booklets from the cross-sectoral professional development activities aimed at implementing the 1999 Stage 6 PDHPE syllabus.

Each of these artefacts assisted in creating an accurate portrait of the workings of the broader PDHPE community of practice. These artefacts were also used to triangulate empirical data from the surveys and interviews.

### ***Statistical Information***

As a longitudinal component of this study, I also collected data relating to HSC option selections from each of the years 1998-2004. The purpose of these data was to highlight the continuity of existence of particular discourse clusters within the community of practice of PDHPE HSC markers. The HSC statistics were gathered from the NSW Department of Education and Training (DET) Curriculum Support Directorate quarterly PDHPE bulletin and the NSW BOS' website. The DET bulletin detailed each previous year's HSC candidature and their selections from the PDHPE HSC examination option module questions. The findings of these data are represented in Chapter Five.

In 1999 the NSW BOS released the revised Stage 6 PDHPE syllabus for implementation in the Preliminary course in 2000, with the first HSC being examined in 2001. Although the HSC option offerings changed with the introduction of the revised 1999 syllabus, as this was a longitudinal study, I aligned the content of each of the revised (1999) HSC option modules with the pre-existing (1994) HSC options. The process of aligning the revised syllabus options with the 1994 syllabus options involved reviewing the syllabus descriptions of each HSC option and identifying similarities.

Statistical data from the quarterly PDHPE bulletin were analysed by coding option modules as those that reflected a socio-cultural perspective of health and physical activity and those that did not. These decisions regarding the epistemological underpinning of each option was made by reading each module description and coding them as focusing on either human movement sciences or including a socio-cultural perspective.

The statistical data (PDHPE HSC candidature option selections) gained from the DET PDHPE bulletin were analysed in regard to:

- raw number of candidates per year responding to each option question;
- percentage of candidates by year responding to each option question in relation to total candidature; and
- percentage of candidates responding to human movement science coded options compared with socio-cultural coded options.

### ***Field Notes***

Field notes were also used to describe my observations of HSC markers during each of the years in which I was appointed as an HSC Senior Marker. "Observational data are attractive as they afford the researcher the opportunity to gather 'live' data from 'live' situations" (Cohen, et al. 2000, p. 305). Participant observation is, however, not without its critics. Participant observation has been critiqued as being subjective,

impressionistic and lacking in precision. As Cohen et al. (2000) suggest, as a participant observer there is the danger of “going native” (p. 314). In this study, however, as a PDHPE academic, secondary teacher, senior marker and syllabus writer, I was in essence already “a native” and as such was observing other members of the community of practice of which I was a part. These observations acted as part of a multi-method approach to the study. In this sense, field notes acted as supplementary evidence to triangulate other sources of data collection.

I prepared field notes while undertaking administrative work, and during meal breaks at the HSC Marking Centre. My field notes contained records of informal dialogue with HSC markers and observations of the distribution of markers to particular HSC option questions. In this phase of data collection I acted as a participant observer in the research process. At the conclusion of each marking session I reviewed my field notes and added explanatory comments and reconstructed conversations.

The field notes taken during HSC marking and professional development opportunities acted as supporting data to further substantiate the findings from both the surveys and the interviews. My observational recordings were categorised according to the themes that arose from the interview transcripts.

#### ***NSW BOS PDHPE Inspector's Launch Address***

In 1999 the NSW BOS PDHPE Inspector, Paul Hewitt launched the revised Stage 6 PDHPE syllabus at a meeting of PDHPE academics, consultants and teachers. With the permission of the PDHPE Inspector, his address was included for analysis for several reasons. First, it assisted in constructing an identity of the broader PDHPE community of practice. Second, it provided a rationale for the changes included in the design of the revised syllabus, and third it identified HSC options that the community of practice of PDHPE HSC markers had preferred from the 1994 syllabus. This address was audio-taped for later transcription. The address was analysed by coding text that verified the themes identified in the interviews. Extracts of text are reported in Chapter Five as supporting data.

#### ***The NSW BOS Evaluation Report***

As a NSW BOS requirement of syllabus review process, an evaluation report needed to be compiled to critique the existing Stage 6 PDHPE course in light of the 1997 Australian Government White Paper *Securing Their Future* (NSW Government, 1997). The recommendations regarding the curriculum reform of the HSC was detailed in Chapter One. The key recommendations, however, included eliminating the overlap

between subjects, justifying the need for each subject, increasing the level of academic rigour of subjects and the development of new syllabuses. As an element of the evaluation process, a literature review of Australian and international syllabuses were undertaken. The *HSC Subject Evaluation Report* for PDHPE (NSW BOS, 1998b) addressed the subject's feasibility in relation to the growth of candidature and evidence of demand for the subject, identification of resultant use of knowledge gained from students studying the subject, evidence of availability of suitably qualified teachers, current perceptions of the subject, evidence of suitably qualified teachers and available school resources, nature of the subject and course content, and the relationship of PDHPE to existing courses.

These data provided specific information relating to the nature of the student who selects to study HSC PDHPE, assisting to highlight the factors that influenced teacher selection of particular PDHPE HSC options. The data gained from the evaluation report relating to current perceptions of the subject, suitably qualified teachers and nature of the subject and course content, was particularly valuable as it aided in constructing a portrait of the PDHPE community of practice and in particular their professional identity.

The HSC Subject Evaluation Report was analysed in two ways in this study. First, to support the literature relating to the history of the PDHPE Key Learning Area, the text from the report was coded according to the themes created from the interview transcripts. Second, the evaluation report statistical data were aligned with the NSW BOS and DET HSC candidature data for comparison.

### ***The Professional Development Workshops***

As outlined in Chapter One, the 1999 Stage 6 PDHPE syllabus had as its underlying philosophy a socio-cultural perspective of health and physical activity. Each of the educational sectors/systems joined to design and deliver a series of professional development workshops across urban and rural NSW with the aim of introducing PDHPE teachers to the concept of a socio-cultural perspective. The title of the workshop was *New Meanings of Health*. Each of the participants at the workshop participated in a series of interactive learning experiences that could be used as initial lessons for the Preliminary Core *Meanings of Health and Physical Activity*. The workshop activities and supporting work booklets were designed by three PDHPE academics, a DET PDHPE Regional Consultant and a Roads and Traffic Authority manager. As a participant researcher, I was privy to insider information in regard to the design and implementation of these workshops. As a member of both the professional development writing team package and a presenter at six NSW workshop



locations I gathered both field notes and resources from each of the planning and implementation meetings. These data aided in noting and evaluating the initial professional development strategies that the PDHPE community of practice was offered in relation to the 1999 Stage 6 PDHPE syllabus.

The observations from the planning and implementation meetings were recorded as field notes and analysed in relation to the themes identified from the interview transcripts. The learning experiences from the workshop and inclusions in the workbook were analysed in relation to the content of the Preliminary Core *Meanings of Health and Physical Activity* in the 1999 Stage 6 PDHPE syllabus. A comparison between content was undertaken to evaluate how successfully the workshop prepared members of the PDHPE community of practice to teach using a socio-cultural perspective.

### ***NSW Tertiary Institutions' PDHPE course structures***

In order to investigate the Australian tertiary preparation courses available to pre-service PDHPE teachers, I used university course information appearing on the World Wide Web. I explored each of the NSW tertiary institutions' website course descriptions relating to training PDHPE pre-service teachers. This process enabled me to ascertain the depth of emphasis of training on subjects with a human movement sciences perspective in comparison to those subjects with a socio-cultural perspective. The aim of this investigation was to assess each course's ability to prepare pre-service teachers to engage with the new socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus.

Each of the course structures of the NSW tertiary institutions offering a degree in PDHPE for pre-services teachers was analysed in relation to number of subjects that focused on the human movement sciences as compared to those that focused on a socio-cultural perspective. The decisions were made by reading each subject abstract and coding the subject as either human movement sciences or socio-cultural. The total number of each perspective for each institution was tallied. An example of the coding process follows.

Table 4.3. Coding of tertiary institution subjects

Subject abstract	Perspective of subject
This subject provides an introduction to the area of <b>human gross anatomy</b> through the study of each of the major systems of the body. In weekly practical sessions, students are exposed to <b>anatomical structure</b> through examination of cadaveric specimens, radiographic images, histological slides, audiovisual materials and anatomical models. Major topics include the <b>skeletal, muscular, nervous, cardiovascular, respiratory, digestive and urogenital systems</b> . (University X Website)	Human Movement Sciences
This subject examines sport and physical activity from a <b>socio-cultural perspective</b> , with a specific focus on topics such as ethnicity, youth culture, gender, sexuality, the body, <b>meanings of health</b> and the commodification of physical activity. A critical analysis of print and electronic media is used to explore how <b>particular representations</b> of sport and physical activity contribute to <b>social values and to ideas</b> about physical activity. It is in this context that the place and <b>meaning of physical education</b> in young people's lives is then examined. (University X Website)	Socio-cultural Perspective

### Credibility of the Study

To support the trustworthiness and credibility of this research, I employed strategies to increase both the internal and external validity of the data. "Internal validity seeks to demonstrate that the explanation of a particular event, issue or set of data which a piece of research provides, can actually be sustained by the data" (Cohen et al., 2001, p. 107). Internal validity of this research was strengthened as a result of:

- the use of multiple methods (both qualitative and quantitative paradigms),
- the collection of data using a range of instruments, (survey, semi-structured interviews, field notes, observation, artefacts),
- the selection of an appropriate sample (representative with significant numbers),
- prolonged engagement in the research field (longitudinal study),
- triangulation of data, and
- member-checking of interview transcripts.

External validity refers to the degree to which the findings of the research can be generalised to other groups, cases or populations. For quantitative researchers, the ability to generalise results and derive universal statements of general social processes is essential. However, for the qualitative inquirer, generalizability is "interpreted as

comparability and transferability” (Eisenhart & Howe, 1992, p. 647). When presenting qualitative research Lincoln and Guba (1985) suggest that it is important to provide a sufficiently rich and detailed description of the data so readers can make their own decisions regarding the transferability of the findings.

This study has possibilities for generalisation to other cases or populations, including Physical and Health Education communities in other Australian states, and internationally. This is supported by the literature presented in Chapter One (see Dinan-Thompson, 2001, 2003; Kirk & MacDonald, 2001; Tinning, 2004; Tinning & Glasby, 2002). The findings of this study will also provide evidence to inform those who administer professional development to the Stage 6 PDHPE community of practice and may assist in creating conditions that are conducive to responding to syllabus change. While reliability is deemed important to researchers adopting a purely quantitative paradigm, insisting on reliability in a mixed mode investigation poses several problems. As a qualitative study involves the exploration of a phenomenon, individual or group, the instruments designed and employed to gather data may produce variations in results over time. “In qualitative research reliability can be regarded as a fit between what researchers record as data and what actually occurs in the natural setting that is being researched” (Bogdan & Biklen, 1992, p. 48).

### ***Triangulation***

Triangulation, aids in “clarifying meaning, and verifying the repeatability of an observation or interpretation” (Denzin & Lincoln, 2000, p. 443). Triangulation adds to the rigour of research and reduces the likelihood of misinterpretation of findings by identifying the different ways in which a phenomenon is viewed. An advantage of using multiple sources of evidence is the emergence of converging lines of inquiry as each methodology “yields a different slice of reality” (Denzin, 1997, p. 321).

Triangulation improves confidence in research findings and strengthens the credibility of the data (Burns, 2000; Sturman, 1997). The multiple perspectives assist to verify the repeatability of an observation or interpretation and result in producing more accurate conclusions (Stake, 2000). In this study, converging lines of inquiry are investigated through the use of a survey, semi-structured interviews, field notes from participant observations and a collection of artefacts.

Triangulation is achieved by checking data for consistency from multiple sources. In this study, data from observations, surveys conducted with both PDHPE HSC markers and pre-service teachers, interviews with PDHPE HSC markers and artefacts constituted the sources of research data. Yin (2003) suggests that data collection from multiple sources enables the researcher to address a broader range of issues. The multiple data

collection strategies employed in this study have increased the trustworthiness of data analysis.

### **Ethical Considerations**

Case study research consists of portraying pictures of individuals, groups or institutions in forms that may be recognisable, therefore ethical considerations relating to participant identity are important (Sturman, 1997). The University of Wollongong Human Research Ethics Committee approved the research proposal (Approval Number: HE98/228). By assigning pseudonyms to participants' interviews and ensuring data were secure participants' confidentiality and anonymity were addressed at each stage of the research design, implementation and in reporting results.

### ***Participant research***

An essential factor to consider in regard to ethics was my position within the research. As I was a member of both the community of practice of PDHPE HSC markers and held membership in other overlapping communities, I was a participant in the research. The degree of my participation at each stage of the investigation however, varied considerably. As outlined in Chapter One, I was an HSC senior marker, Stage 6 PDHPE teacher, PDHPE tertiary educator, NSW BOS PDHPE HSC Advice Line member, Stage 6 PDHPE syllabus writer and designer, and presenter of the professional development workshops that reflected the new ideological underpinnings and pedagogies of the syllabus. In these roles, I engaged with members of the community of practice and observed a community of practice emerging, as old-timers and newcomers informally conversed on their understandings of the revised syllabus and its implementation.

I played a central role in prescribing the content of the Stage 6 PDHPE professional development workshops and was a key presenter in numerous NSW metropolitan and rural venues. As a case study is "both a process of inquiry about the case and the product of that inquiry" (Denzin & Lincoln, 2000, p. 436), my role as an *insider* provided me with the opportunity to compare the similarities and differences in what syllabus content had been delivered at the professional development workshops and how practitioners had enacted their negotiated understandings of the syllabus in their classrooms and at HSC marking.

As a participant researcher there are dangers associated with interpreting and reporting data. These dangers, in the form of researcher subjectivity, have the potential to cloud the results of a study. Therefore Peshkin (1988) suggests that researchers should actively explore their feelings and values associated with their

inquiry and acknowledge how their subjectivities and investments in the area may influence their study. As such, it is important to discuss my position in this study.

As a member of multiple professional associations and communities of practice aligned with the Stage 6 PDHPE community of practice, I have a vested interest in the enactment of the Stage 6 PDHPE syllabus in NSW classrooms. Members of the Stage 6 PDHPE community of practice were aware of my support for the ideological position of the 1999 syllabus. In an effort to remain as objective as possible, I employed multiple methodological resources in gathering, interpreting and reporting data. In the research design, I have justified these methodological and ethical decisions which were undertaken to safeguard the objectivity of data collection and interpretation from interviews with community members.

## **Summary**

Chapter Four has outlined the paradigmatic, methodological and ethical decisions I have made in the collection and representation of data in this thesis. The thesis adopted a mixed mode approach to data collection. Surveys and interviews acted as the basis for creating a profile of both the centripetal and legitimate peripheral participants in the PDHPE community of practice and investigated their engagements with particular discourses. As an intrinsic case study, artefacts acted as a further source of data to triangulate the findings.

The following three chapters will comprehensively address the research questions by presenting the findings of this study relating to:

- The community of practice of PDHPE HSC markers (data source one and four: results in Chapter Five);
- Representatives of discourse clusters within the PDHPE community of practice of PDHPE HSC markers (data source three: results in Chapter Six); and
- The pre-service teachers who represent legitimate peripheral participants in the broader community of practice (data source two: results in Chapter Seven).

The findings of each of these investigations will be examined in light of the literature (Chapters Two and Three).

The concluding chapter (Chapter Eight) will summarise the findings of each of these investigations and present implications for Stage 6 PDHPE teachers' professional development and the tertiary training of pre-service PDHPE teachers.

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## Chapter Five

### A PDHPE Community of Practice: Mobilising Discourses and Shaping Identity

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Chapter Five will identify the characteristics of the community of practice of PDHPE HSC markers, explore members' preferred engagements with the 1994 and 1999 Stage 6 PDHPE syllabuses, and outline the factors that influence these engagements. This chapter will also identify the discourse clusters operating within this community and how these shape the professional identity of members. Finally, the measures that members of the community of practice take to learn about the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus will be explored. The data for this chapter were derived from examining a range of NSW BOS artefacts and surveying PDHPE HSC markers at the 1998 Marking Centre using a self-administered questionnaire. The findings of the survey assisted to answer the research question:

2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?

#### **The Community of Practice of PDHPE HSC markers**

As described in Chapter Four, 103 questionnaires from a possible 149 were completed by PDHPE HSC markers during 1998 PDHPE HSC marking. The initial findings from the survey assisted in constructing a composite identity of the members of the community of practice of 1998 PDHPE HSC markers.

Of the 103 surveys completed, 71.8% of participants were employed by the NSW Department of Education and Training, with 28.2% of participants teaching the Stage 6 syllabus in non-government schools. HSC markers were selected by the NSW BOS based on the representative percentage of PDHPE candidates presenting for the HSC examination each year. Thus, the school system/sector from which the markers were recruited proportionally represented the educational system/sector from which the candidates came. The majority of HSC markers in this sample (81.6%) taught in co-educational schools, with approximately 18.4 % of markers being employed in single sex schools. This can be explained as the majority of Department of Education and Training schools are co-educational. Included in the sample of PDHPE HSC markers were 5% of teachers from co-educational non-government schools.

More than two-thirds (69.9%) of the HSC markers taught in one of the four regions which comprise the Sydney Metropolitan area, the other third taught in schools in the Hunter, Riverina, and NSW South and North Coast. Participants self-nominated these categories. Considering the HSC Marking Centre was located in the Sydney Metropolitan area, these findings were fairly predictable.

The sex of the respondents was relatively evenly divided, with 46 females (44.7%) and 57 males (55.3%) completing the survey. The Supervisor of Marking endeavours to ensure this balance between sexes when designing criteria for the selection of HSC markers (Hearne, D., Supervisor of Marking, personal communication, 1998).

While thirteen respondents had completed a Masters degree (12.6%), the majority (86.5%) had completed either a Diploma or Bachelor degree in a related area of Physical Education and/or Health Education. For the purpose of this study, the qualification of "Diploma" refers to an undergraduate degree, for example, a Diploma of Teaching, as opposed to a postgraduate Diploma in Education. For ease of analysis the highest tertiary qualification only was recorded and included in the data analysis. The *NSW BOS HSC Subject Evaluation Report* (1998b) identified the opportunities provided by universities for teachers wishing to upgrade their qualifications in PDHPE. The report also pointed to declines in post graduate enrolments as a source of professional development. This was clearly evident in the number of PDHPE markers who had either a Masters or Doctoral qualification. The Evaluation Report further stated that:

postgraduate study appears to be an unattractive option. This may be symptomatic of the times, with cutbacks in degree offerings and the introduction of full fee paying degrees. However, the issue of course suitability and teacher needs should be addressed. (NSW BOS, 1998b, p. 17)

The participants undertook their most recent tertiary studies at either The University of Sydney, including the former Sydney Teachers' College (22.3%) or the University of Wollongong (22.3%). Newcastle University accounted for a further 12.6 % of respondents. Other Australian tertiary institutions were represented in minimal percentages in the data.

Table 5.1 represents the decade of completion of participants' most recent tertiary qualification. For ease of analysis, years were compiled into ten year bands (decades).

*Table 5.1.* Decade of completion of most recent tertiary qualification ( $n=103$ )

Decade	Frequency	Percent
1960s	4	3.9
1970s	16	15.5
1980s	51	49.5
1990s	32	31.1
Total	103	100.0

The need for relevant and current professional development was brought to the fore as the data revealed that 68.9% of participants have not undertaken tertiary study for more than twenty five years. While it is recognised that undertaking tertiary studies is not the sole strategy for maintaining professional currency, the data have significant implications for teachers, given the dynamic nature of physical and health education and the inclusion of a socio-cultural perspective of health and physical activity in the 1999 Stage 6 PDHPE syllabus. As illustrated in Table 5.2, the majority of participants identified their respective educational systems as their primary source of professional development (35.9%), with HSC marking being a secondary source of support (21.4%). This statistic was not surprising given the recruitment procedures for sample participants. Other sources of professional development included the PDHPE Teachers' Association Annual Conference (15.5%), collegial networks (3.9%) and university courses (2.9%). As documented in my field notes (November, 2000-2004), HSC marking provided the opportunity for both formal and informal dialogue with colleagues around their understandings of the syllabus content. Since the inception of the Stage 6 PDHPE syllabus (1991) insufficient numbers of HSC markers have nominated to mark those options with a socio-cultural perspective. As a result, the Supervisor of Marking randomly selected individual teachers to form part of these marking teams (Field Notes, November 1992-2004). As a product of this process, these teachers are "forced" to engage in conversations with their colleagues and Senior Marker in relation to the content of these options and their understandings of a socio-cultural perspective of health and physical activity. Essentially this provides an increasing pool of PDHPE HSC markers who have a working knowledge of this perspective.



Table 5.2. Sources of professional development (n=103)

Source of Professional Development	Frequency	Percent
Systemic PD	37	35.9
HSC marking	22	21.4
Other	21	20.4
Conference	16	15.5
Networking	4	3.9
University study	3	2.9
Total	103	100.0

The *HSC Subject Evaluation Report for PDHPE* (NSW BOS, 1998b) stated:

that there are a range of professional development options available to PDHPE teachers. Education sectors provide a range of in-service options and school-based support through PDHPE consultants and advisers as well as develop teacher support materials. Professional associations (ACHPER, PDHPE Teachers' Association and Board of Studies) provide in-service activities. (p. 16)

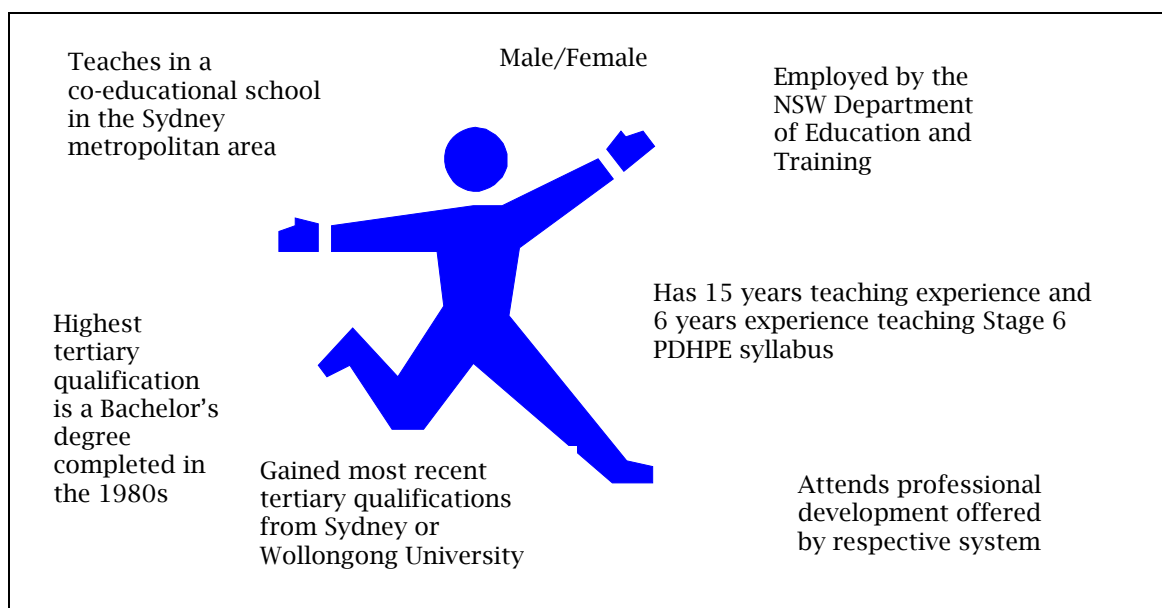
The professional development activities that accompanied the initial implementation of the 1991 syllabus have resulted in teachers developing expertise in areas that may not have been featured in their initial training. However, there is an on-going need for updating in areas of changing knowledge. (p. 17)

Here, the NSW BOS recognises that the nature of knowledge in the areas of health and physical activity were subject to change and that PDHPE teachers should, as part of their continuing professional experience participate in professional development activities. The NSW BOS further recognises that PDHPE tertiary preparation courses had altered to accommodate the changing notions of health and physical activity. Participants had been teaching for between five and thirty-five years with the mean number of years of teaching experience being 15.9 years (standard deviation 6.8), and the median number of years being 15, indicating the *ageing* of the sample of PDHPE HSC markers.

Given the criteria employed by the NSW BOS to select HSC markers, that is, a minimum of four years teaching experience, and currently teaching or had taught HSC PDHPE in the previous three years, it was predictable that a large percentage of markers had five or more years teaching experience. Notably however, 49.5% of HSC markers had between eleven and twenty years teaching experience, indicating the relative *ageing* identity of the community of practice of PDHPE HSC markers. Lave and Wenger (1991) would describe this community as constituted by old-timers who had knowledge of the rules, rituals, language and customs of the practice. It was evident from the data that the majority of the respondents had been teaching the Stage 6 PDHPE syllabus for between five and six years (55.3%). Newcomers to HSC marking were buddied with experienced markers who essentially *taught them the ropes* and shared the hints associated with the processes of marking gained through their continued engagement in the practice of teaching and marking the PDHPE HSC content (Field Notes, 2001). Lave and Wenger (1991) see this process as a form of legitimate peripheral participation with newcomers undergoing a process of enculturation into the community of practice.

### **Representative Composite Identity of the Community of Practice of PDHPE HSC markers**

The data sets resulting from the demographic information in the questionnaire responses provided sufficient evidence to construct a representative composite identity of the members of the community of practice of PDHPE HSC markers. Figure 5.1 is a representation of this identity. This profile was constructed based on the mean of each data category.



*Figure 5.1.* The representative identity of a PDHPE HSC marker in 1998

The literature (Dewar, 1989; Macdonald et al., 2002; Templin & Schempp, 1989) presents the identity of the Physical Education teacher as one which is characterised by participation in physical activity and sport and the centrality of the body.

For example, Nettleton (1985) comments:

The image of physical education held by other teachers and academics incorporated the following factors. It was seen to be interesting, both as a professional training and as an occupation. The teachers of physical education were regarded as competent, ambitious, useful and important. Although regarded as intelligent, popular and secure, they were not seen as particularly hard working nor academic in orientation. Their professional preparation was regarded as mature but not particularly highly academic or professional in nature. (p. 61)

While Nettleton presents a “dated” professional image of the “Physical Education” teacher this enduring image would essentially still have a direct influence on how the subject is viewed, the status it is given and how those who teach it are perceived. As discussed in Chapter Two, the PDHPE teacher has also been shaped by historical, micro-political and socio-educational factors. These factors have manifested themselves in the sets of values and understandings associated with health and physical activity. With the changing nature of the NSW PDHPE syllabus, the professional identity of the PDHPE community of practice of HSC markers needs to change.

Given the identity of PDHPE teachers constructed in the literature, it was important to examine if the professional identity of the research sample of NSW PDHPE HSC markers had responded to the needed changes of becoming a practitioner who was knowledgeable of, and capable of enacting a socio-cultural perspective of health and physical activity. This was examined by identifying the dominant discourses being mobilised in the community of practice of PDHPE HSC markers.

### **Identifying Discourse Clusters in the Community of Practice of PDHPE HSC Markers**

Having constructed a representative identity of the community of practice of PDHPE HSC markers, the next step was to explore the HSC options most preferred by this community. This would highlight the dominant discourse clusters operating within the

community of practice and provide data to answer the research question “How does the professional identity of the PDHPE community of HSC markers influence their syllabus selections?”

Data to answer this question were initially created by participants identifying the HSC options taught from 1994-1998. Table 5.3 represents these data.

*Table 5.3.* HSC option modules taught from 1994 - 1998 ( $n = 103$ )

Please see print copy for Table 5.3
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(Source: NSW BOS, 1999a)

As identified in Table 5.3 *The Art and Science of Coaching* was significantly the most preferred option taught by Stage 6 PDHPE teachers in the research sample (55.3%). The NSW BOS statistics from the HSC examination centre confirmed the popularity of the 1994 syllabus option module *The Art and Science of Coaching* and in the 1999 syllabus the option modules of *Sports Medicine* and *Improving Performance*. These options are highlighted in blue and represented in Table 5.4 and Table 5.5. In the analysis phase, each of the HSC option modules were coded as those that reflected a socio-cultural perspective and those that did not. In Table 5.4 and Table 5.5, the cells shaded yellow represent those option modules that I have identified as reflecting a socio-cultural perspective of health and physical activity.

Table 5.4. The 1994 NSW PDHPE syllabus HSC option modules selected by year

Please see print copy for Table 5.4
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(Source: NSW BOS, 2001)

With the introduction of the 1999 revised syllabus, students were required to select *two* options for study in the HSC. It is important to note that small numbers of students responded to more than two option questions in the HSC examination, resulting in differing totals from the *n* score.

Table 5.5. The 1999 NSW PDHPE syllabus HSC option modules selected by year

Please see print copy for Table 5.5
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**Note:** students were required to answer *two* HSC options questions from 2001 onwards.

(Source: NSW BOS, 2006)

The PDHPE HSC marker questionnaire further required respondents to rank the 1994 HSC options from one to six, with one being the HSC option they would *most* prefer to teach and six being the *least* preferred option. Tables 5.6 represents the HSC option identified as first preference by the research sample. This supports the data in Table 5.3 identifying *The Art and Science of Coaching* as PDHPE HSC markers' most preferred option to teach.

Table 5.6. First preference option

HSC Option	Frequency	Percent
Community Health Issues	1	1.0
Sociology of Games and Sports	7	6.8
Two Social Health Issues: Drug use and HIV/AIDS	19	18.4
Biomechanics of Human Movement	7	6.8
Applied Anatomy, Exercise Physiology and Principles of Training	14	13.6
The Art and Science of Coaching	55	53.4
Total	103	100.0

These findings indicated that there were essentially two discourse clusters of PDHPE markers: a larger cluster of those who preferred the options that represent the **human movement sciences perspective (73.8%)** and a smaller cluster of those who preferred the options with a **socio-cultural perspective (26.6%)**. In Chapter Six the findings of interviews conducted in 2001 with PDHPE HSC markers from each of these two discourse clusters are presented. These interviews refer to PDHPE HSC markers' engagements with both the 1994 and 1999 syllabuses. These interviews serve to highlight those characteristics that differentiate those HSC markers who have engaged with a socio-cultural perspective from those who have continued to select options with a human movement sciences perspective.

The data in Table 5.4 and 5.5 confirm PDHPE HSC markers' preference for options with a human movement sciences perspective. The interview data reported in Chapter Six further supports the preference for these options and examines the relationship between the professional identity of the community of practice and their preference for particular options, through an analysis of interview responses.

### **Influence of Professional Identity on Option Preference**

As PDHPE HSC markers' professional identities may have influenced their preference for particular options, it was important to explore the possibility of relationships between the independent variables (e.g. sex, tertiary preparation) and the HSC options most preferred. Each of the independent variables from the marker survey was cross tabulated with the PDHPE HSC markers' first preference option and a chi square test ( $p < .05$ ) was conducted to determine whether a relationship existed between PDHPE HSC markers' first preference option and each of the demographic variables of

geographic location (city/country), educational sector (government/non-government), sex of HSC marker, teaching experience, academic qualifications and professional development experiences. While none of the tests returned statistically significant results, there were trends worth further investigation. Discussion regarding these trends follows.

### ***Sex of PDHPE HSC marker***

A two-way contingency table analysis was conducted to determine whether the sex of the PDHPE HSC marker influenced PDHPE HSC markers' choice of first preference option. The two variables were the sex of the PDHPE HSC marker with two levels (male and female) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective). The sex of the PDHPE HSC marker and first preference option were found not to be significantly related (Pearson's  $\chi^2(1, N = 103) = 1.76, p < .18$ , Cramer's  $V = .13$ ). While the results of the test were not significant (Pearson Chi-Square 0.18), there were identifiable trends in regard to sex of the PDHPE HSC marker and their option selected to mark at the HSC Marking Centre. My observations, as a senior marker at the PDHPE HSC Marking Centre from 1994-2004 suggested that female teachers were over-represented as both markers and senior markers in those options with a socio-cultural perspective. For example, in 2000 all teams marking options with a socio-cultural perspective were led by female senior markers and all teams marking options with a human movement sciences perspective were led by male senior markers. This trend was consistent with the distribution of senior markers assigned to lead the marking teams for the Core Modules of the HSC examination. All senior markers leading teams marking the Health Core were female and seven of eight senior markers marking the Human Movement Core were male (Field notes, November, 2000). However, this trend was identified by the Supervisor of Marking (Doug Hearne) 2001 who made a decision to "manipulate" the assignment of markers to HSC options to create a more equitable balance of males and females marking the options with a socio-cultural perspective (Hearne, D., Supervisor of Marking, personal communication, 2001). In 2002, there were 14 female markers and 8 male markers assigned to those options with a socio-cultural perspective.

### ***Geographic location of school***

A chi square test was applied to determine whether a significant statistical relationship existed between the location of the markers' school and their choice of first preference option. The two variables were the location of school with nine levels (Metropolitan West, Metropolitan South West, Metropolitan East, Metropolitan North, Hunter, Riverina, South Coast, North Coast and Other) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective). The

location of school and first preference option were found not to be significantly related (Pearson's  $X^2(8, N = 103) = 5.08, p < .75$ , Cramer's  $V = .22$ ). Despite this lack of statistical significance, there were several notable observations that were represented by the data set. First, PDHPE HSC markers who taught in schools in the Metropolitan East and Hunter regions were represented in greater percentages in the frequency of first preference options with a socio-cultural perspective. Second, those PDHPE HSC markers employed in schools in the Metropolitan North, Riverina and North Coast regions were represented in greater percentages in the frequency of first preference options with a human movement sciences perspective (80.0% and 90.9%) respectively.

Despite the lack of statistical significance, the geographic location of the schools which the PDHPE HSC candidates attended was highlighted as an influencing factor in the qualitative responses to the questionnaire. Examples of respondents' comments included:

I teach at X. It's 300km from the nearest big town. Our kids do [the option] "Coaching" because the whole town here plays sport on the weekend. It keeps the kids out of trouble and they feel like the coaching they study at school has something to do with their weekends.

Our school doesn't have the equipment to do some of the other options like anatomy or biomechanics. We're in a small community and coaching suits us. We can support the primary school down the road by helping them out with our kids coaching the little ones. We do this for an assessment.

The comments of PDHPE markers suggest that they chose *The Art and Science of Coaching* option to assist their students to see relevance in their study as well as providing links with the wider local community.

The preference for *The Art and Science of Coaching* (1994 syllabus) and *Sports Medicine* (1999 syllabus) as preferred HSC options were further supported by the data from interviews with PDHPE HSC markers. This analysis is presented in Chapter Six.

### ***Educational sector***

The *NSW BOS HSC Subject Evaluation Report PDHPE* (1998b) identified the school sectors from which the 1994-1997 PDHPE HSC candidature was drawn. Table 5.7 represents the number of PDHPE students from the government and non- government sector.



Table 5.7. PDHPE HSC candidates from the government and non-government sector

Year	Government	Selective	Catholic Systemic	Catholic Independent	Independent
1994	4949	183	1206	390	429
1995	4948	229	1346	396	597
1996	5043	260	1403	582	657
1997	5153	513	1426	627	870

(Source: NSW BOS, 1998b, p. 6).

Table 5.7 demonstrates that over the period of 1994-1997, the growth of HSC candidature in PDHPE was evident in all educational sectors. The type of school that students attended did seem to have had an influence on the PDHPE HSC option selected. For example, the following comments gathered from the HSC marker survey, suggest such a relationship:

I'm at a selective high school so my kids are capable of Biomechanics and Anatomy. Most of them also choose Physics and 3 unit Maths so these options fit well with their other study. (Government Selective High respondent)

We have a gym with all the weights equipment, so we choose Anatomy. It's great because the kids can experience first hand how to do resistance training. We also have a fitness testing lab so we can do all bike tests at school. I can understand how some schools can't do this because they don't have the high tech resources. (Independent School respondent)

The first comment highlights how the academic ability of the students at a selective high school and the options of *Biomechanics of Human Movement* and *Applied Anatomy, Exercise Physiology and Principles of Training* were seen as privileged or high status knowledge, as there was a taken-for-granted relationship between level of difficulty and options underpinned by science-dominated knowledge.

As outlined in Chapter Four, with his permission, the NSW BOS PDHPE Inspector's Launch Address was audio-taped and transcribed. Data from this transcription provided specific examples of how academic ability and educational sector (school type) influenced the preference for HSC options.

At the moment (1994 syllabus) we have got some very rigorous options, Biomechanics and Anatomy. They are almost totally patronised by the higher achieving schools. At X everyone does biomechanics, and they dominate. ... We believe that the way it is presented at the moment it's just too hard for the majority of students. (Hewitt, 1999)

Again, there was an assumed equivalence between the status and prestige of science and the difficulty of the option. It was inferred that only those students with high academic ability would succeed in the options with a science-based focus.

The economic ability of schools to resource particular options was highlighted by the second example. It was evident that some non-government schools were in a financial position to equip their classes with a range of suitable resources and that this capability had significant influence on their preferred option. Therefore, it could be argued that the educational sector in which PDHPE markers teach has influence on their option preferences.

### ***Tertiary preparation***

#### ***Highest tertiary qualification***

A two-way contingency table analysis was conducted to determine whether the highest tertiary qualification held by PDHPE HSC markers influenced their choice of first preference option. The two variables were the highest tertiary qualification held with three levels (Diploma of Education/Teaching, Bachelor Degree and Masters degree) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective). The highest tertiary qualification and first preference option were found not to be significantly related (Pearson's  $X^2(2, N = 102) = 3.82$ ,  $p < .15$ , Cramer's  $V = .19$ ).

A further source of data gathered relating to tertiary qualifications included an internet search of postgraduate courses offered by NSW tertiary institutions suitable for PDHPE teachers. The survey data were surprising as in general the structure of postgraduate courses in NSW provides teachers with a choice of courses and subjects with both a human movement sciences perspective and a socio-cultural perspective. Thus, teachers endeavouring to improve their qualifications are presented with course and subject offerings that both reinforce and challenge their current understandings of health and physical activity. For example, Table 5.8 presents postgraduate study opportunities at two NSW tertiary institutions.

*Table 5.8. Examples of NSW tertiary institution postgraduate courses for PDHPE teachers*

NSW Tertiary Institution	Postgraduate Courses Available
University X	Master of Education (Health Education) Master of education (Coach Education) Master of Education (Human Movement)
University Y	Master of Physical and Health Education Graduate Certificate in Physical and Health Education

From viewing these course descriptions, opportunities do exist for PDHPE teachers to undertake postgraduate studies in courses that reflect a socio-cultural perspective of health and physical activity. However, it would be interesting to identify the number of PDHPE teachers who select these courses in preference to those with a human movement sciences perspective. These data were unavailable to me.

#### *Decade of completion of most recent tertiary qualification*

A two-way contingency table analysis was conducted to determine whether the decade of completion of the highest tertiary qualification held by PDHPE HSC markers influenced their choice of first preference option. The decade of completion of the highest tertiary qualification and first preference option were found not to be significantly related (Pearson's  $X^2(3, N = 103) = 2.72$ ,  $p < .44$ , Cramer's  $V = .16$ ). While the results of the test were not statistically significant, there were data worthy of note. Those PDHPE HSC markers who undertook their highest tertiary qualification in the 1980s chose options with a socio-cultural perspective in greater percentages than their colleagues who gained tertiary qualifications in the other decades (33.3%). An explanation for this finding may be that tertiary institutions training Physical Education teachers began to include Health Education in their course during the late 1970s and 1980s. Until this time only Sydney and Wollongong universities included aspects of Health Education in their pre-service teacher training courses (Wright, J., personal communication, 2004). This has direct implications for the understandings that PDHPE HSC markers have of health and physical activity. If members of the research sample had not attended professional development activities since graduating from their undergraduate tertiary studies then this raises questions as to how these teachers learn about a socio-cultural perspective of health and physical activity.

#### *Tertiary institution most recently attended*

The findings of a two-way contingency table analysis cross-tabulating the tertiary institution most recently attended by PDHPE HSC markers and first preference option were found not to be significantly related (Pearson's  $X^2(11, N = 103) = 12.92$ ,  $p < .29$ , Cramer's  $V = .35$ ). PDHPE HSC markers who attended the University of Western Australia, Wollongong University and Edith Cowan University chose options with a

socio-cultural perspective in greater percentages than their colleagues who attended the other universities in the sample. Examination of these tertiary institutions' PDHPE undergraduate courses revealed that the course structure was not dissimilar to those of other universities in the sample.

### ***Sources of professional development***

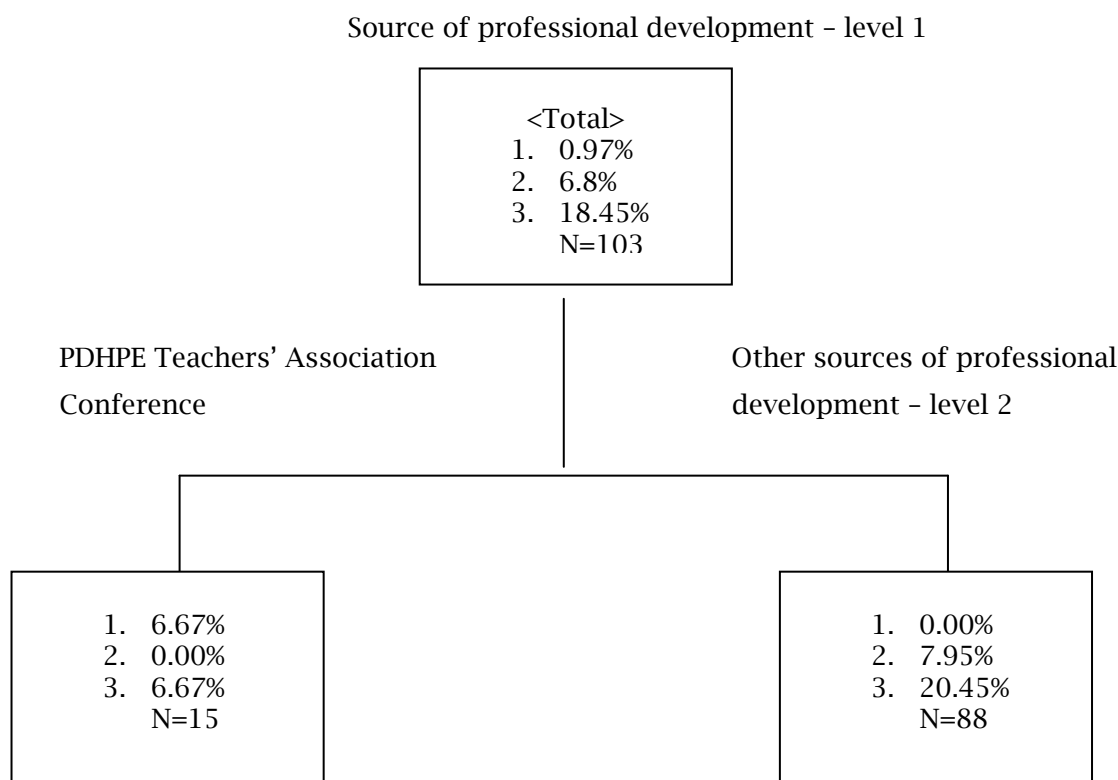
In NSW professional development opportunities for PDHPE teachers have been organised by their respective educational systems/sectors as well the principal professional teachers' association (PDHPE Teachers' Association). Professional development opportunities occurred most frequently at the time of the release of new curriculum documents (Hewitt, P., NSW BOS PDHPE Inspector, personal communication, 2000). To investigate whether the sources of professional development influenced PDHPE HSC markers' first preference option, a two-way contingency table analysis was conducted. The two variables were the source of professional development with six levels (PDHPE Teachers' Association conference, system professional development, networks, university study, HSC marking and other) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective).

The source of professional development accessed by PDHPE HSC markers and first preference option were found not to be significantly related (Pearson's  $X^2(5, N = 103) = 1.78$ ,  $p < .88$ , Cramer's  $V = .13$ ). However, by examining the expected and actual counts from the cross-tabulation, for each source of professional development, it was evident that those PDHPE HSC markers who accessed the PDHPE Teachers' Association Conference as their primary source of professional development chose options with a human movement sciences perspective in greater percentages than their colleagues (86.7%). Those PDHPE HSC markers who accessed university courses and HSC marking as their primary source of professional development were more likely to select those options with a socio-cultural perspective (33.3% and 31.8% respectively). These findings would suggest that those PDHPE HSC markers who were relying on the PDHPE Teachers' Association as their primary source of professional development were participating in workshops that were reinforcing their knowledge of a human movement sciences perspective of health and physical activity.

### ***A CHAID Analysis of Professional Development***

From 2001, HSC candidates were required to select two options to answer in their examination. Using CHAID, (see Chapter Four, p. 74) both first and second preference options were analysed to identify if there were differences in factors that influenced option selection. The following analyses investigated the first preference option

selected by PDHPE HSC markers in the sample by examining each cross tabulation using CHAID. As outlined in Chapter Four the best predictor of the first preference option was calculated by the independent variable (e.g. years teaching experience, sex of PDHPE HSC marker) that split the dependent variable (first preference option) at the most significant level. The results were displayed as tree diagrams. Of the possible interactions between the dependent and independent variables only one significant predictor variable was identified by CHAID. This predictor variable managed to split the first preference option into subgroups relating to source of professional development. These results showed that there was a significantly different pattern of option preference made by those who accessed the PDHPE Teachers' Association conference as their primary source of professional development from those who accessed other sources of professional development. Figure 5.2 represents the tree diagram demonstrating the best predictor variable of first preference option.



*Figure 5.2.* Best predictor variable of first preference option - source of professional development

As confirmation of predictors of the dependent variable (first preference option), I further examined the professional development opportunities available at the PDHPE Teachers' Association Annual Conferences from 1994-2000. The conference programs acted as reliable artefacts for accessing these data. Table 5.9 identifies the workshops

offered and the participant attendance for 2000. This year was selected as it was the first year of implementation of the revised (1999) Stage 6 PDHPE syllabus.

*Table 5.9. PDHPE Teachers' Association conference workshops and attendance 2000*

<b>Workshop title</b>	<b>Participant numbers</b>	<b>Sessions offered</b>
The Health of Young People	50	2
Sport and Physical Activity in Australian Society	24	2
Equity and Health	16	1
Sports Medicine	60	2
Improving Performance	72	2
<b>Total participant numbers</b>		<b>Total session numbers</b>
Socio-cultural perspective	90	5
Human movement sciences perspective	132	4

Considering there are three PDHPE HSC options with a socio-cultural perspective and two with a human movement sciences perspective, participant numbers still favoured those options with a human movement sciences perspective. It could be assumed from these data that PDHPE HSC markers within this sample of conference participants were more likely to be reinforcing their knowledge of human movement sciences rather than expanding their subject knowledge to include a socio-cultural perspective. The workshops with a socio-cultural perspective (*The Health of Young People*, *Sport and Physical Activity in Australian Society* and *Equity and Health*) were presented by female academics from three different tertiary institutions while those options with a human movement sciences perspective were presented by male PDHPE teachers.

At this phase of the 1999 Stage 6 PDHPE syllabus implementation, academics were invited to present workshops relating to options with a socio-cultural perspective, as PDHPE teachers were seen to lack the knowledge and confidence to present these options (Hearne, D., Chair PDHPE Teachers' Association Conference Committee, personal communication, June, 2000). Lave and Wenger (1991) suggest that these academics were acting as *brokers* or *translators* of the written curriculum, enabling PDHPE teachers to learn how to enact negotiated understandings of the syllabus in their classrooms. I argue that the role of these brokers is imperative in creating and sustaining communities of practice. As these academics came from overlapping communities of practice it was essential that they were viewed as knowledgeable, trusted and respected and seen as interested in improving the practice of their colleagues. Furthermore, engaging PDHPE teachers in the presentation of workshops provided an opportunity for practitioners to participate in the discourses of learning in

situated contexts with other practitioners. Pugach (1999) suggests that “one of the most important purposes of a community of practice is to establish a learning community across levels of expertise rather than within them” (p. 270).

### ***Years of teaching experience***

A two-way contingency table analysis was conducted to determine whether PDHPE HSC markers' years of teaching experience influenced their choice of first preference option. The two variables were years teaching experience with six levels (0-5 years, 6-10 years, 11-15 years, 16-20 years, 21-25 years and 26+ years) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective). PDHPE HSC markers' years of teaching experience and first preference option were found not to be significantly related (Pearson's  $X^2(5, N = 103) = 2.66$ ,  $p < .75$ , Cramer's  $V = .16$ ). Table 5.10 highlighted some notable trends.

*Table 5.10. Cross Tabulation – Years teaching experience and first preference option*

		First preference options		
		Human movement Perspective	Socio-cultural perspective	Total
Years of teaching experience				
0-5	Count	3	1	4
	Expected count	3.0	1.0	4.0
	% within	75%	25%	100%
6-10	Count	19	5	24
	Expected count	17.7	6.3	24.0
	% within	79.2%	20.8%	100.0%
11-15	Count	17	9	26
	Expected count	19.2	6.8	26.0
	% within	65.4%	34.6%	100.0%
16-20	Count	20	5	25
	Expected count	18.4	6.6	25.0
	% within	80%	20%	100.0%
21-25	Count	9	5	14
	Expected count	10.3	3.7	14.0
	% within	64.3%	35.7%	100.0%
26+	Count	8	2	10
	Expected count	7.4	2.6	10.0
	% within	80.0%	20.0%	100.0%
Total	Count	76	27	103
	Expected count	76.0	27.0	103.0
	% within	73.8	26.2	100.0

From Table 5.10 it was evident that those PDHPE HSC markers with between 11-15 years teaching experience and those with between 21-25 years teaching experience chose options with a socio-cultural perspective in greater percentages than their colleagues (34.6% and 35.7% respectively). An explanation for these findings may be that PDHPE HSC markers with between 11-15 years teaching experience may be in

Head Teacher positions and have the opportunity to select HSC options or they have had several years HSC marking experience and have decided to experiment with those options with a socio-cultural perspective in their schools. Chapter Six will further explore the reasons why PDHPE HSC markers engage with different HSC options throughout their teaching career (see Table 5.13 Who chooses the option?).

### ***Years of teaching Stage 6 PDHPE***

A two-way contingency table analysis was conducted to determine whether PDHPE HSC markers' years of teaching the Stage 6 PDHPE syllabus influenced their choice of first preference option. The two variables were years of teaching the Stage 6 PDHPE syllabus with eight levels (2 years, 3 years, 4 years, 5 years, 6 years, 7 years, 8 years and 10 years) and first preference option with two levels (human movement sciences perspective and socio-cultural perspective). PDHPE HSC markers' years teaching the Stage 6 PDHPE syllabus and first preference option were found not to be significantly related (Pearson's  $X^2(7, N = 103) = 3.57$ ,  $p < .83$ , Cramer's  $V = .19$ ). Those PDHPE HSC markers with two or three years' experience teaching the Stage 6 PDHPE syllabus chose options with a human movement sciences perspective in greater percentages than their colleagues (100% and 100% respectively). Those PDHPE HSC markers with four years and eight years experience teaching the Stage 6 PDHPE syllabus chose options with a socio-cultural perspective in greater percentages than their colleagues (38.5% and 36.4% respectively). The total expected count within years teaching Stage 6 PDHPE was 73.8% for those options with a human movement sciences perspective and 26.2% for those options with a socio-cultural perspective. It could be assumed that those teachers with minimal years of experience teaching the Stage 6 PDHPE syllabus replicate those options traditionally taught in their schools or their Head Teacher chooses the option which they are to teach. Given that those PDHPE HSC markers with five, six, and seven years experience teaching the Stage 6 PDHPE syllabus, choose those options with a human movement sciences perspective, it is not surprising that the newcomers are choosing this perspective in greater percentages. Lave and Wenger (1991) would suggest that the apprenticeship model of learning was demonstrated here as newcomers to the practice observed and replicated the practice of their "master", in this case mentor or head teacher.

### ***Predictor Variables and HSC Option Selections***

In an effort to identify the factors that influenced HSC markers' preferences for either a human movement sciences or socio-cultural perspective of health and/or physical, I applied a CHAID analyses to each of the preferences of options (two to six preferences). Only those analyses that resulted in a predictor variable and related to first or second preference option identified are shown.



**Predictor Variable: Sex of the PDHPE HSC Marker**

Figure 5.3 indicates that the best predictor for second preference option (dependent variable) was the sex of the PDHPE HSC marker. At the second level of the tree diagram, these results showed that there was a significantly different pattern of second preference option choices made by male markers in comparison to female markers in the sample. By referring to the cross tabulation of these two variables it was evident that nineteen female markers preferred an option with a socio-cultural perspective while twenty-seven female markers preferred an option with a human movement sciences perspective as their second preference.

Sex of PDHPE HSC marker – level 1

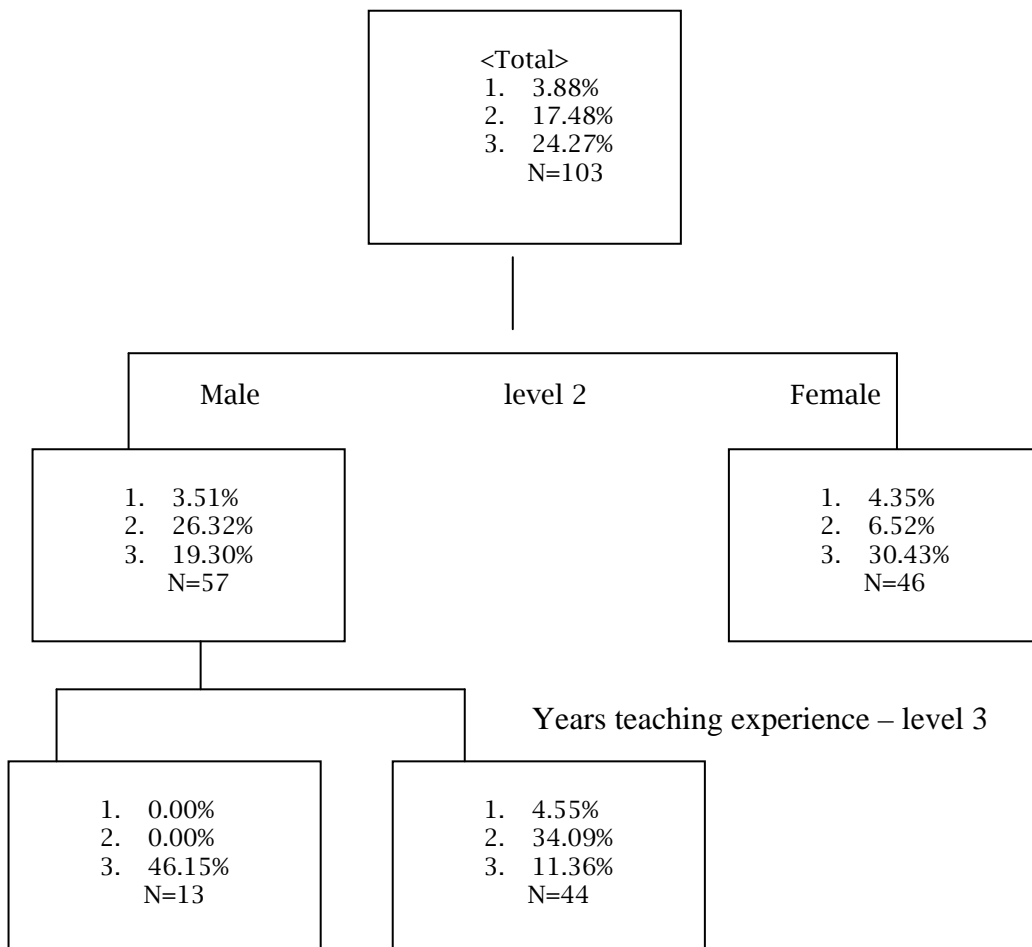


Figure 5.3 Sex of PDHPE HSC marker

**Predictor Variable: Years Teaching Experience**

At the third level of analysis of the tree diagram, years teaching experience was the best predictor that segmented these subgroups. Of the fifty seven male markers whose second preference option differed significantly from the pattern of their female colleagues, years of teaching experience further divided their group into subgroups of

those with less than ten years teaching experience and those with greater than ten years teaching experience.

The results of the cross tabulation between years teaching experience and second preference option highlighted a notable trend. Those PDHPE HSC markers with less than ten years teaching experience chose as their second preference, options with a socio-cultural perspective in greater percentages than their colleagues with eleven years plus teaching experience. These findings are in contrast with the first preference option findings. Given that PDHPE teachers are now required to select two HSC options for study from the 1999 Stage 6 PDHPE syllabus, these findings need further consideration.

Each of the independent variables was further explored during the interviews with PDHPE HSC markers. The results of these interviews are presented in Chapter Six.

### **Factors Influencing the Selection of PDHPE HSC Options**

Having established the most frequently selected HSC Option was The *Art and Science of Coaching*; an option with a human movement sciences perspective, it was important to further investigate the reasons why members of this community engaged with particular PDHPE HSC options. This further analysis was needed as several anomalies existed in the data as revealed by the CHAID analysis. It was evident that sex of the PDHPE HSC marker and years teaching experience significantly influenced markers' second preference option selection.

Data were collected by asking survey respondents to identify and rank three factors that influenced their selection of options. Respondents identified a variety of influencing factors including the availability of textbooks, programs already existing within their schools, the opportunity to use community resources such as Sports Trainer courses, links with both HSC core content and Years 7-10 PDHPE content, school timetabling issues, the perceived professional status of particular options, the tradition of the school, career or vocational links and the type of examination question. The three highest ranking influencing factors on option selection were i) teacher expertise; ii) academic ability of the student; and iii) student interest.

As the academic ability of the student and student interest were identified as influencing factors in selecting HSC options, in order to fully examine the factors that influenced PDHPE HSC markers' option preferences I needed to further explore the identity of the PDHPE HSC candidates.

### ***Identity of the PDHPE HSC Candidate***

As respondents to the HSC marker survey indicated, the academic ability of their students and students' interest influenced their selection of HSC option. In order to investigate these influencing factors data were investigated from the *NSW BOS HSC Subject Evaluation Report PDHPE (1998b)* and mapped against NSW BOS PDHPE HSC Examination statistical data, and the HSC marker survey.

The *NSW BOS HSC Subject Evaluation Report PDHPE (1998b)* presented comments regarding the identity of the PDHPE HSC candidates:

The course appeals to a broad range of students inclusive of gender, student ability groups, location and types of school. PDHPE is significantly represented in the curriculum of both metropolitan and country schools. The initial uptake in Government and Catholic systemic schools has been steadily built upon while Independent and Selective schools have been areas of high growth in candidature. ... The gender breakdown of candidature since first implementation indicates that the course is equally attractive to both males and females. This pattern differs from that in other states where separate Physical Education and Health Education courses tend to attract a greater proportion of males and females respectively. The candidature is becoming increasingly diverse in terms of the range of student abilities represented. (Source: NSW BOS, 1998, p. 8)

The NSW BOS PDHPE Inspector pointed out that the syllabus was designed to be appealing to and inclusive of different types of HSC students. Table 5.12 indicates that there were more females undertaking the PDHPE HSC course. Data derived from open-ended questions in the PDHPE HSC marker questionnaire suggests that the sex of the student influenced the PDHPE HSC option selected for study.

*Sex of students*

*Table 5.11. Sex of PDHPE HSC candidates*

Please see print copy for Table 5.11
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(Source: [http://www.boardofstudies.nsw.edu.au/ebos/static/ebos\\_stats.htm](http://www.boardofstudies.nsw.edu.au/ebos/static/ebos_stats.htm), accessed 14/03/06).

Table 5.11 shows how the interest in undertaking PDHPE as a HSC subject has been constantly strong and that since 1996 increasing numbers of female students have selected to study the course. Student candidature peaked in 2000. This was the last year that the HSC was examined on the content of the 1994 syllabus. Since the introduction of the revised (1999) syllabus student candidature has continued to increase. Teachers continue to select those options with a human movement sciences perspective (NSW BOS, 2005).

PDHPE HSC markers' comments suggest that the student's sex did influence their preference for particular PDHPE HSC options. Examples of these follow:

The girls write much better so they can choose Sociology and do well.

The girls seem to be more interested in the health side of things rather than the physiology stuff.

My boys would think I was joking if I offered them Community Health or the drugs one.

The boys want to do practical so we choose coaching. We do practical almost every lesson and then spend the last 10 mins or so writing up the notes.

These PDHPE HSC markers' comments suggest that whether students were female or male influenced both the preference for and success at particular options. Many of the comments drew on very conventional notions of femininity and masculinity and ability and interest. There is a disjunction here between approximately equal numbers of females and males studying Stage 6 PDHPE and the assumption by PDHPE HSC markers regarding students' interests and options preferred for study. Essentially, many of the PDHPE HSC markers have indicated that their preferences for options were "to keep the boys out of trouble and interested". As a result of these PDHPE HSC marker comments, a cross tabulation was undertaken to determine whether there was a significant relationship between sex of students and first preference option.

*Table 5.12.* School type by sex of students and first preference option

Sex of students		First preference options		
		Human movement	Socio-cultural	Total
Males	Count	6	2	8
	Expected	5.9	2.1	8.0
	% within	75.0	25.0	100.0
Females	Count	8	3	11
	Expected	8.1	2.9	11.0
	%within	72.7	27.3	100.0
Co-educational	Count	62	22	84
	Expected	62.0	22.0	84.0
	% within	73.8	26.2	100.0

Findings from the chi square test revealed that the sex of students and first preference option were not significantly related (Pearson's  $X^2(2, N = 103) = .012, p < .99$ , Cramer's  $V = .011$ ). Referring to the results of Table 5.12, it can be noted that despite the sex of the students at the PDHPE HSC markers' school the HSC options selected by all girls, all boys or co-educational schools have similar ratios in regard to preferring options with a human movement perspective and a socio-cultural perspective. That is, human movement sciences represent approximately 75% of preferred options while those options with a socio-cultural perspective were chosen by approximately 25% of PDHPE HSC markers. It is important to note at this point, that this finding contradicted the qualitative data provided by PDHPE HSC markers to the open-ended questions posed during the survey. Qualitative data highlighted that the sex of students did influence the selection of HSC options. The complete set of examples presented by PDHPE HSC markers included girls' writing/literacy ability, boys' need for practical, boys' learning

styles and girls' interest in the areas of Health Education. It is also important to note here that in most cases students do not choose the option for study, but rather the class or head teacher PDHPE selects the option (See Whose Choice, in this chapter).

#### *Academic ability of the student*

This factor was commonly identified as an influence in preferring *The Art and Science of Coaching* option. Respondents' explanations included comments such as:

This is a less challenging option for the less able student.

This option caters for the range of academic abilities of students in my class.

Coaching is an easier option. The boys in my class couldn't cope with the other science type options. They are basically there for the practical.

It's a much easier exam question. The kids just have to learn the facts and can spit them out again in a diagram or table or short answer. The other options get them to write an essay and my kids couldn't do that.

The style of the HSC question allows our students to perform well in the exam. Basically, we have what I call basketball brats doing this course and all they want to do is play sport not write essays. In our school, PDHPE is timetabled against the harder subjects so we get the "leftovers" if you get my drift.

A lot of boys choose the course and prefer a softer option so we like the Coaching option.

The HSC questions are usually straightforward and the boys can answer them.

These examples highlight the fact that *The Art and Science of Coaching* was viewed as a soft or easy option because of the style of HSC examination question and was linked with the perceived literacy ability of boys. These quotes reinforce traditional notions of males as active learners and being less able in areas of literacy. In regard to the academic ability of the general cohort of students undertaking PDHPE, the University Admissions Centre website ([www.uac.edu.au/pubs/pdf/prelimreport-2005.pdf](http://www.uac.edu.au/pubs/pdf/prelimreport-2005.pdf)) indicates that in general the candidature selecting PDHPE as a course of study was

generally below the University Admission Index (UAI) Scaled Mean<sup>11</sup>. In 2005, 75 was the median HSC mark gained by PDHPE HSC candidates, and 35% of candidates studying PDHPE received a “Band 4”. In NSW, HSC students are awarded bands based on their performance in the HSC examination against pre-determined descriptive criteria. Each band describes the level of performance of a typical student response. These data together with the UAI scaled mean (23.4 for PDHPE where the average scaled mean is 25) demonstrate that, in general, those students who select PDHPE for their HSC study are slightly below average academic ability as measured by HSC scores, in relation to all students undertaking the HSC.

The *NSW BOS HSC Subject Evaluation Report PDHPE* (1998b) recognised that with the increasing demand for studying PDHPE, “the candidature is becoming increasingly diverse in terms of student abilities represented” (NSW BOS, 1998b, p. 8). The concern raised by all key groups providing input for the Evaluation Report was that the course was failing to meet the needs of the varied range of students that the course was attracting. This was confirmed by PDHPE HSC markers’ responses to the questionnaire conducted for the study. Their responses indicated that undertaking options such as *Biomechanics of Human Movement* or *Applied Anatomy* or options requiring extended responses to examination questions were beyond the academic ability of less able candidates. Therefore teachers chose to offer HSC options which allowed for diagrammatic, table, point form or short answer responses in the HSC examination. Following is an example of the type of response which was highly valued by markers for options with a human movement sciences perspective. This response is an example of an “excellent” student response to *The Art and Science of Coaching* option question.

Please see print copy for Figure 5.4

(Source: NSW BOS, 1998c, p. 12).

*Figure 5.4. Example of student response - The Art and Science of Coaching 1998*

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UAI scaled mean is the student’s position in the course candidature if all students had completed that course.

In contrast, the following is an example of a response valued by markers for the options with a socio-cultural perspective. The differences between these responses support PDHPE HSC markers' assumptions that those options reflecting a human movement sciences perspective can be answered using basic recall via diagrams, points and tables. Hence markers' encouragement for studying these options for less able students, or students whose literary ability is poor. More academically-able students may have been encouraged to select HSC options that require an extended response to the HSC examination question. Following is an example of an "excellent" student response to *Sociology of games and sports* option question.

**Question:** Sport is an important part of Australian society.

**Student response:** Sport is a very important part of our way of life in Australia. Australia's sporting identity began with the first settlers who arrived over 200 years ago. Australia has strong sporting links to our colonial days – the first settlers were mostly male – had no commitments and sports made up the majority of their time – they lived in a tough environment where courage, mateship and aggression were expected. Sport enabled all people to be involved, either as spectators, administrators, participants and those who gambled on the outcome – it provided income for people. Australia's sporting identity was raised during the first ever Ashes tour by the Australian cricketers – who upset the English on their soil – this set the trend for many years, whereby Australians assumed the underdog role.

(Source: NSW BOS, 1993, p. 70).

*Figure 5.5. Example of student response - Sociology of Games and Sports 1998*

These examples of examination responses have implications for the HSC option selected by PDHPE HSC markers for students with less academic or literary ability. *The Art and Science of Coaching* option was commonly viewed by PDHPE HSC markers as a "soft" or "easy" option, therefore the resultant high number of candidates responding to this question in the HSC examination.

The NSW BOS PDHPE Inspector's notes guiding the Launch Address of the 1999 Stage 6 PDHPE syllabus confirmed that student academic ability influenced the nature of their preferences for particular options.

It was quite apparent that PDHPE attracted students of diverse ability and interest. It was found that there were many students who found the 1994 course too demanding and different to their perception of a course in PDHPE. Many students had a clear preference for Physical Education or Health aspects and would prefer two separate courses representing these areas. (Field notes, August, 1999)



These comments indicate that the PDHPE Inspector viewed particular options as more suitable for students of lower academic ability and for those who preferred participating in physical activity. The *Art and Science of Coaching* option provided teachers and students with these practical opportunities. Micro-political influences also need to be recognised here in relation to the type of student that studies PDHPE in some schools. Sparkes, Templin and Schempp (1990) state that subjects such as Physical Education “have been marginalised and accorded low status, which has influenced their positioning in relation to other subjects in terms of the allocation of power, resources and funding in schools” (p. 3). Because of its perceived practical nature, PDHPE is awarded a subordinate position on the curriculum hierarchy, as educational contexts prefer overtly intellectual subjects (Kirk & Tinning, 1990). While Kirk and Tinning’s comments relate to Physical Education rather than the integrated curriculum of PDHPE, recent literature (MacDonald, et al. 2002) reveals this remains a prevailing attitude to Health and Physical Education.

Timetabling restrictions and the academic status of the course influences the nature of the student who selects Stage 6 PDHPE in schools. PDHPE HSC markers’ comments support the power of these influences. For example:

PDHPE is against Physics and Chemistry and the high Maths subjects on the timetable line so we get the dregs. Doing biomechanics is not possible – too hard.

My school is all boys and the boys who take PDHPE are the rugby team (if you know what I mean) so it’s a tradition for us to do coaching because it’s easy.

We would never get students in PDHPE who could do well. They all do maths and the sciences and engineering so they can score a high UAI<sup>12</sup>.

The Year Coordinator discourages the bright kids from doing PDHPE because she thinks that it’s not important or *worthy* of studying for the HSC.

These comments reinforced the notion that there were a range of factors that influenced option preference in Stage 6 PDHPE, including the difficulty that subjects such as PDHPE find in “gaining acceptance within what Connell (1985) describes as the hegemonic ‘competitive academic curriculum’ that is devoted to self-referring, abstract bodies of knowledge” (Sparkes, Templin & Schempp, 1990, p. 5). In regard to HSC

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<sup>12</sup> UAI is the University Admission Index and is a ranking of students’ HSC results.

option selection, some students and teachers view their choice of subject (PDHPE) and options within that subject as indicating a value of worthwhile knowledge.

The NSW BOS PDHPE Inspector's Launch Address of the 1999 Stage 6 PDHPE syllabus further highlighted the influence of academic ability on student engagement with the course. The NSW BOS has responded to low candidature undertaking the *Biomechanics of Human Movement* option by removing it as an option and including several simple biomechanical principles in the core aspect of the revised syllabus. This indicates that the perceived academic ability of student has profound implications for curriculum decision making in PDHPE.

The *Body in Motion* has been reshaped to encourage students to think about a range of factors that influence movement ... The inclusion of biomechanics was an area of debate. As represented in the existing HSC option, it was viewed as too difficult and hence unpopular. ... The outcome was a focus question that gives a taste of thinking biomechanically, not encompassing the breadth of human movement, not driven by formulae, but giving emphasis to learning through experiencing. (Hewitt, 1999)

The Inspector's address clearly suggested that there was a growing trend at the time in relation to option selections. While the NSW BOS valued the inclusion of biomechanics in the syllabus, it also recognised that, for the majority of students the option in its existing format did not meet the needs of the students undertaking the course.

#### *Interests of the student*

Student interest was nominated as the second ranked influencing factor on PDHPE HSC option choice in the questionnaire. Question eleven of the survey required respondents to identify who makes the choice as to which option to study for the HSC examination. The choice of option most commonly does not lie with the student. Table 5.13 suggests that in the majority of cases (76.7%), students are not consulted regarding their interest in particular options. The choice of HSC option was most often made by the class teacher and Head Teacher PDHPE. Only in 7.8% of cases did respondents indicate that students were the ones choosing the HSC option from a complete offering of options. It seems that, in some cases (5.8%) students were offered a refined selection of option choices based on the teachers' interests, experience and expertise.

Table 5.13. Who chooses the option?

School Personnel	Frequency	Percent
Head Teacher (HT)	11	10.7
Class Teacher (CT)	34	33.0
Negotiate HT & CT	34	33.0
Student - All Options	8	7.8
Student - Selected Options	6	5.8
Other	10	9.7
Total	103	100.0

Given this finding, a two-way contingency table analysis was conducted to determine whether who chose the HSC option influenced which option was selected as first preference. The two variables considered were: who was responsible for choosing the option with six levels (head teacher, class teacher, negotiated between head teacher and class teacher, students from all options, students from a refined list of options, other); and which first preference option was chosen with two levels (human movement sciences perspective and socio-cultural perspective). Who was responsible for choosing the option and first preference option were found to be significantly related (Pearson's  $X^2(5, N = 103) = 11.02, p < .051$ , Cramer's  $V = .33$ ).

In cases where students were provided with the opportunity to select the PDHPE options for study for their HSC examination the division between those options with a human movement sciences perspective and those with a socio-cultural perspective was equal. If markers are at all representative of PDHPE HSC teachers, then I argue here that PDHPE teachers are making assumptions about their students' needs, interests and abilities, and when given the opportunity, students are more equally divided in their preferences between those options with a human movement sciences perspective and a socio-cultural perspective. PDHPE HSC teachers may also be assuming students' interests based on gender stereotypes. PDHPE HSC marker comments relating to sex of student and academic ability clearly suggest this. For example:

My boys can't just sit still in class. I need to do an option that gets them moving and keeps them outside. That's how they learn. My girls are fine. They're quite keen to do the inside stuff.

A different participant stated:

The maths/science nerdy type boys like the human movement analysis stuff. They can cope with its difficulty. The girls just can't hack it. They're much better at the airy fairy ones [options] where they get to write a lot.

These comments indicate that some members of the community of practice are adopting traditional notions of masculinity and femininity when making curriculum choices for their students. These comments have significant implications for the community of practice and the reproduction of their professional identity. Analysis of these data indicates that approximately equal proportions of students were interested in options with a human movement sciences perspective and a socio-cultural perspective however, their teachers were privileging the dominant discourses associated with human movement sciences options.

Student interest, we could assume, relates to both the content of the syllabus and pedagogy employed to teach the course. One of the influencing factors commonly identified by the sample of PDHPE HSC markers was the practical nature of the option *The Art and Science of Coaching*. In their comments the HSC markers have implied that *The Art and Science of Coaching* provides opportunities for a particular type of pedagogy to be employed: that being participation in practical or laboratory type activities. Sparkes (1999) points out that essentially the identity of many Physical Education teachers is created from the centrality of physical activity in their life.

#### *The Physical in PDHPE*

PDHPE HSC markers in the research sample commented on both the practical nature of the syllabus content and the opportunity to teach using practical lessons. Markers' comments highlighted their assumptions about students' and teachers' interests in participating in and teaching practical elements of the course. For example:

The students are able to get out and do some prac work.

I [the teacher] get a break from the classroom and we can have a bit of a run around

My students are all kinaesthetic learners so they need to have concrete movement examples and the practical nature of this option lets me do that.

The other options are far too scientific and boring because you can't go outside.

I choose this option because I have a majority of boys in my class and they need to get out of the classroom. It makes my life easier.

The *NSW BOS HSC Subject Evaluation Report* (1998b) confirmed the popularity of courses that provide a practical element and cater for less able students.

A significant number of Preliminary students do not complete the HSC course. While this can be explained to a degree by less able students who do complete HSC schooling, initial consultation provided support for the view that two main groups of students drop the course as they find that it does not meet their needs. This includes those students who are looking for a more practical, movement-based course and more able students who drop PDHPE to take up other courses with a perceived Tertiary Entrance Rank (TER) advantage. (NSW BOS, 1998, p. 8)

The *NSW BOS HSC Subject Evaluation Report PDHPE* (1998b) identifies “insufficient opportunity for practical experiences in the human movement field” (p. 20) as a course weakness with 54% of teachers stating that the course was too theoretical with limited practical components. This feedback was addressed in the 1999 Stage 6 PDHPE syllabus option offerings (Hewitt, P., NSW BOS PDHPE Inspector, personal communication, 1998). In the Evaluation Report recommendations were made for strengthening the course. These included developing separate health and human movement courses to increase the practical in the core; providing a more specific movement requirement in the school assessment guidelines; and reviewing options for relevance (NSW BOS, 1998b). The Stage 6 1999 PDHPE syllabus, however, remained an integrated course and adopted theoretical assessment strategies (HSC examination) despite these recommendations.

The NSW BOS PDHPE Inspector's Launch Address of the 1999 Stage 6 PDHPE syllabus confirmed the need for a course which included practical elements: “The place of physical education and the opportunity to learn by doing is closely related to the issue of student interest and time” (Hewitt, 1999). The address further highlighted that “increased opportunity to have a practical approach to the study of human movement was needed in the new syllabus” (Hewitt, 1999).

These comments suggest that the historical notions of physical education as *learning in physical activity* dominated the discourses surrounding the design of the 1999 Stage 6 PDHPE syllabus. Certainly here I suggest that the preferences for particular HSC

options were influenced by the community of practice's embodied identities. It was evident from the PDHPE HSC markers' comments and the statement from the NSW BOS Evaluation Report that teachers and students valued learning in physical activity as important. Tinning (2004, p. 245) states that "teacher identity is shaped by the central place that body, physical activity and sport plays in their daily lives". The traditional or historical identity of the PDHPE teacher draws on the notions of body as an object or machine to be regulated and the associated discourses of healthism (Gard & Wright, 2001; Lupton, 1995; Tinning & Glasby, 2002). Essentially, the professional identity of HPE teachers according to Tinning (2004) "is based on their embodied identities as practical 'doers', physical activity seekers" (p. 244). As evidenced by the results of the survey data, this embodied identity has been played out in the option preferences of the PDHPE HSC markers.

#### *Relevance to Students' Lives*

Student interest, I propose, also related to the relevance of the course to the students' lives at and beyond school. Survey respondents highlighted the relevance of *The Art and Science of Coaching* option beyond the course. This relevance related to co-curricular activities that students were undertaking as well as accreditation opportunities for students. Examples of respondents' explanations for *The Art and Science of Coaching* being the most preferred option included:

Most students who do this course have a strong interest in playing and coaching sport and are happy to gain expertise in this area with certificates which are publicly recognised.

This option provides students with skills for future life.

Students gain accreditation (Level 0 Coaching) and can earn money with their certificates.

Students can apply their study to their own sport. They learn about the principles of coaching and coaching styles and stuff and can take this back to their game on the weekend.

I'm at a country school and sport is the norm for most kids in my class. The Coaching option provides them with something that links with their sport. The *NSW BOS HSC Subject Evaluation Report PDHPE* (1998b) claims that "PDHPE has the potential to lead to a wide range of career options" (p. 13) and that "students may choose options which reflect not only their immediate interests

but also in accordance with their career goals/pursuits” (p. 12). The report suggests that it was likely that students were selecting to undertake PDHPE as a pre-requisite to further study in related areas or as a basis for future vocational endeavours. Careers such as coaching, fitness leaders, first aid instructors, physiotherapy and sports sciences form predictable pursuits for students studying PDHPE. Table 5.14 represents the fields of study at tertiary level identified in the report as being available to students studying PDHPE.

Table 5.14. Fields of study related to PDHPE

Please see print copy for Table 5.14
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(Source: NSW BOS, 1998b, p.12).

The Evaluation Report notes that of the 94% of students studying PDHPE who received a Tertiary Entrance Rank (TER), 12% enrolled in courses directly linked to studies in PDHPE. Of significant note is that the majority of these students enrolled in Human Movement and Sports Science courses (1998, p. 12). Of the 1076 students who enrolled in university science courses in 1997, 217 students had studied PDHPE and in medicine 10 of the 213 enrolled studied PDHPE (NSW BOS, 1998b, p. 13). These data further legitimises the prestige of the science-based options within the PDHPE HSC course.

Through an examination of tertiary entrance course data, the Evaluation Report stated that “the most popular study is the field of sports science as the sport, fitness and recreation area appears to satisfy both a personal interest and a career path for interested students” (1998b, p. 13). It is not surprising, then, that the HSC options with a human movement sciences perspective, and in particular *The Art and Science of Coaching*, were preferred by students.

The NSW BOS PDHPE Inspector's Launch Address of the 1999 Stage 6 PDHPE syllabus further supports this by identifying "the utility of the course in leading students to tertiary courses and vocational pathways" (Hewitt, 1999).

### *Teachers' expertise*

The last theme identified relates to teacher expertise and comfort with the first preference option. I define teacher expertise as the product of the participants' tertiary education, professional development and professional and personal experiences, resulting in working knowledge of options and the course. The *NSW BOS PDHPE HSC Subject Evaluation Report (1998b)* provides the following statement as evidence of the availability of appropriate numbers of suitable qualified teachers to teach the 1999 Stage 6 PDHPE syllabus: "In discussions with educational sector representatives, ... there were no indications that staffing for 2 unit PDHPE is currently a problem nor was it projected to be a future concern" (NSW BOS, 1998b, p. 15). This statement, however failed to recognise that the 1999 Stage 6 PDHPE syllabus had incorporated a socio-cultural perspective of health and physical activity. Many of the PDHPE HSC markers' latest tertiary qualifications were undertaken more than twenty five years prior to the introduction of this syllabus and many of these teacher training degrees did not provide opportunities to study health and physical activity from a socio-cultural perspective.

Comments written in response to the PDHPE HSC marker survey referred to teacher confidence, comfort and knowledge in particular areas of the syllabus. These comments help to explain why teachers preferred particular options. For example:

My competence and lack of recent experience in Human Movement Analysis is why I teach Coaching.

My knowledge, expertise and student interest influence my option choice.  
I hated Biomechanics at uni. I don't feel prepared to teach it.

I've ranked Biomechanics as last because of the way this topic has been assessed in the exam in the past. I don't know enough to teach it.  
It's a long time since any professional development stuff was offered on Biomechanics. I would have to go back to my uni notes and brush up.  
I've yet to see a teacher in-service on Biomechanics and Anatomy.

Smaller candidature answers this HSC option - Sociology so that's why we do it.  
It gives the kids more of a chance to do well.



As evidenced by the data presented in Table 5.4 and Table 5.5 the options with a particularly “heavy” science base (Human Movement Analysis: Biomechanics and Anatomy, Exercise Physiology and Principles of Training) were under-represented in the total candidature selection. Explanations for this clearly flag the need for detailed knowledge of this aspect of syllabus content and the opportunity to participate in current professional development activities. As an option, *The Art and Science of Coaching* provided both teachers and their students with the opportunity to participate in practical learning activities, without the necessity to learn the scientific theory associated with movement.

Respondents’ explanations further focused on the ease with which *The Art and Science of Coaching* could be taught using accreditation opportunities such as Level 0 courses and on the confidence provided by teachers’ pre-requisite knowledge of the content and experience in coaching situations. Examples of respondents’ explanations for their choice of *The Art and Science of Coaching* as an option follow:

It’s fairly easy to plan a meaningful lesson for a large group of students.

Teachers readily relate to the content because they are sports people themselves. I don’t have to go to a workshop to learn how to teach this stuff.

Newer teachers feel comfortable teaching this option because it just relates to what we do in Years 7-10 and what we do on the weekend.

My workload would increase greatly if I had to read about another option. Most of the others are too heavy and scientific or too airy fairy and the kids wouldn’t get it! I feel like I know what I’m doing in this [coaching] option. I know the content and how to teach it. I’ve been doing this option since it started. All PE teachers coach outside school so it’s just easy to do this option because we know what to do without having to look it up or waste time at a PD day.

The other options are boring because they don’t let you teach in a creative way. I prefer to teach Coaching because it’s fun and I know how to teach it.

These comments indicate teachers’ preferences for an option that allows them and their students to participate in practical activities.

## Responding to Syllabus Change

The PDHPE HSC marker survey invited respondents to identify the three measures that they would take if they had to teach the HSC option they ranked as sixth preference.

These data assisted in answering the research questions:

2. How does the professional identity of the PDHPE community of practice of HSC markers influence their syllabus selections and responses to syllabus change?
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

The responses of the PDHPE HSC markers to this survey question indicate that they were most likely to undertake professional reading, talk with colleagues, gather resources from colleagues and gather professionally produced resources, (text books) as measures taken before teaching their sixth preference option. "Talk with colleagues" was identified consistently as their highest priority as a measure taken before teaching their sixth preference option.

Talking with colleagues provides opportunities for members to engage in dialogue and adopt what Wenger (1998) terms an *insider* trajectory into the community of practice. This insider trajectory allows members to move from peripheral to core positions in their community of practice. PDHPE HSC markers' comments to other questions in the marker survey suggest that informal dialogue with colleagues who clearly understand and could *apply* these understandings to a classroom situation were a highly valued form of professional development. Participants consistently suggested that while the formal professional development opportunities were useful as an introduction to their coming to terms with the new content and pedagogies, it was the informal networking experiences with colleagues that helped them to understand these new syllabus inclusions.

Different PDHPE HSC markers wrote comments such as:

I learnt about the new meanings of the syllabus when chatting with other markers on their table or during tea time. Our senior marker presented one of the workshops on the New Meanings of Health in Dubbo. I went to the workshop but I got more out of it by just working on her table at marking.

Talking to her and other markers helped me to get my head around what it meant and how I should be teaching it with my kids.

The opportunity to engage with colleagues, share my fears, concerns, reservations, excitement and understandings of the new syllabus seemed to be the best way to get my head around the new syllabus. I think that the formal part was useful but the chats over coffee helped me to see what this new syllabus would mean for me in my classroom. When I sat and listened to the consultant doing the power point presentation I got frustrated because they don't understand what our kids are like, but I felt OK when I chatted with a few guys from other schools and we sort of worked out how we were going to teach this new syllabus.

I think that informal networking experiences with colleagues would help me to understand these new syllabus inclusions.

I haven't taught the Stage 6 syllabus before and I want to have a chat with older teachers who had taught the syllabus before and could put this new content into perspective.

This commentary suggests the need to create conditions within a community of practice that would assist markers to learn about a socio-cultural perspective of health and physical activity. The markers identify the role and benefit of informal relationships within their community of practice, and invite these conditions into their practice.

## **Discussion**

The following section of this chapter summarises the results and provides a discussion of the findings. The HSC markers in the research sample can be discussed as:

- Members maintaining the status quo;
- Practical doers and seekers of certainty;
- Gendered implementers of the syllabus; and
- Members creating spaces for change.

These areas of discussion align with the research questions:

2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change? and

4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with and enact the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

### **Members Maintaining the Status Quo**

The data presented in this chapter positions the majority of members of the NSW PDHPE community of practice of HSC markers as practical doers and seekers of certainty. This discourse cluster of the community of practice has demonstrated their “gendered” interpretation and implementation pattern of the 1999 Stage 6 PDHPE syllabus. These HSC markers are maintaining the status quo as evidenced by their patterns of HSC option selections.

### ***Maintaining the Status Quo***

In his Launch Address of the 1999 Stage 6 syllabus, the NSW BOS PDHPE Inspector outlined the degree of change to the new syllabus. He stated that changes related to:

technical language and challenging concepts ... might I say that this is largely in the health domain and I think a lot of emphasis in professional development from here on until implementation is going to be around health. The sort of scientific jargon that might appear in the PE areas is understood by the majority of people. I guess it's a function of our training. But in the health area where things are a little bit new, it pushes the comfort zone a little bit. ... However it's just getting used to it that will be the trick. (Hewitt, 1999)

The NSW BOS PDHPE Inspector's comments were designed to allay the fears associated with curriculum change (see Beavis, 2001; Hall, 1997; Harris 2003; Hutchins & Macdonald, 1993; Reynolds, 2001; Simpson, 2004; Sparkes et al., 1990) and suggest that it would be only a matter of time (rather than other factors) before teachers learnt the jargon of the new course and felt at ease with the content. The Inspector drew attention to the attractiveness of the course for a diversity of HSC candidates and highlighted the social and cultural factors of gender, academic ability, geographic location and school type in relation to the course's ability to be inclusive. He further stated that the reason the 1994 Stage 6 PDHPE syllabus catered for a diversity of students is that it offered a range of options for study that present very epistemologically different perspectives, and allowed students/teachers a choice of area of specialisation in regard to these disparate discourses. He suggested that “the options provide for students to select a clear health specialisation, a human movement specialisation or a balance between the two. With respect to movement there is scope to study this in a sociological sense as well as scientifically” (Hewitt, 1999). However,

it was evident from the NSW BOS HSC candidature statistics that PDHPE teachers had not selected either a balance between the two or a clear health specialisation in their option selections, but rather essentially adopted a business as usual approach: preferring those options that reaffirmed the sense of who they were, and which mirrored their tertiary preparation and personal interests.

### ***The Practical Doer***

As described in Chapter Two, the history of the KLA was fraught with conflict and struggles of power. Home Economics teachers, Health teachers, Personal Development teachers and PE teachers struggled to have their version of the separate subjects privileged and recognised within the new KLA structure. As a result of this history, PDHPE teachers have adopted what Macdonald, Hunter, Carlson and Penney (2002) term “strong subject identity” (p. 262). They continue to create their professional identity around their interest in and commitment to physical activity. As evidenced by the data, HSC markers in the NSW research sample indicated their preference for HSC options that allow them an opportunity to continue their association with sport.

As researchers’ Macdonald and Glover (1998) found “for many prospective HPE teachers, their primary area of interest was in physical activity and not with the other strands of the learning area” (in Tinning, 2004, p. 243). In further support of this identity, Macdonald, Hunter, Carlson and Penney (2002) suggest that “physical education teachers tended to identify strongly not only with the content of the subjects they taught, but also with the medium they used to teach it” (p. 268). In this case, Macdonald et al. were suggesting that PE teachers clearly identified with teaching using physical activity or movement as a medium. Responses to the HSC marker survey reflected markers’ choices of HSC options that provided the opportunity for both teachers and students to participate in practical performance lessons.

The HSC markers indicated in their survey responses, that student interest and academic ability were the key factors that influenced their selection of HSC options. Taking into account the identity of students who undertake Stage 6 PDHPE, “those kids who are often playing sport at local, club and representative level” HSC markers have made option selections based on the perceived interests and needs of their students.

Furthermore, students’ expectations of the role of and medium used to teach PE is an important influencing factor on HSC option selection. The majority of students selecting PDHPE for study in Stage 6 have an interest in and are able sports participants. When selecting PDHPE they expect to participate in practical activities during the course (Field Notes, 1999-2005). This expectation was noted by Macdonald

et al. (2002) who suggest that “the students go to PE with movement in their heads, not just talking about it” (p. 269).

While the Years 7-10 PDHPE syllabus includes two strands that offer practical activity opportunities, the nature of the NSW Stage 6 PDHPE syllabus, has a significant theoretical component and could be viewed as being at odds with the notion of *doing* in PE.

Given the struggles of identity around the formation of the PDHPE KLA, many PDHPE HSC markers still view themselves as PE teachers who have been required to incorporate Health and Personal Development into their teaching repertoire. The national research supports the proposition that both male and female students are drawn to HPE teaching predominantly as an opportunity to further pursue their association with physical activity (Hutchinson, 1993; Placek, Dodds, Doolittle, Portman, Ratliffe & Pinkman, 1995; Macdonald, Kirk & Braiuka, 1999). In conflict with this interest in and need for participation in physical activity, Fitzclarence and Tinning (1990) in reference to a Victorian tertiary preparation course, state:

to give physical education the academic credibility they desperately wanted ... a program was created which virtually excluded all opportunity for physical activity and which echoed the pedagogy of high status academic subjects of the prevailing curriculum, emphasising in particular knowledge that had an empirical and scientific flavour. (p. 177)

This lack of inclusion of physical activity could be viewed as being in conflict with most prospective HPE and PDHPE teachers' expectations of a tertiary preparation course. In NSW however, tertiary preparation courses during 1970-1990 included a range of practical/performance based subjects such as games, dance, gymnastics and track and field (Pickup, M., Senior Lecturer, Sydney University, personal communication, 2000). These inclusions in the course mirrored the content of the mandatory compulsory years of schooling PE syllabus however, the 1999 Stage 6 PDHPE syllabus is dominated by theoretical knowledge.

As such, in their desire to participate in physical activity, the dominant discourse cluster of NSW HSC markers have embraced the limited opportunities to participate in physical activity by selecting *The Art and Science of Coaching* (1994) and *Sports Medicine and Improving Performance* (1999). It is these options that provide PDHPE teachers with the potential to further their interest and participate in physical activity.

### ***The Seeker of Certainty***

The professional profile presented in the research findings of this chapter, indicates that a significant proportion of the members of the PDHPE community of practice of HSC markers' tertiary preparation privileged the discourses and knowledge systems that aligned with the human movement sciences. While the research participants suggested that there were a few subjects in their undergraduate degrees that challenged the scientific view of physical education they most often viewed these subjects as irrelevant, peripheral or lacking applicability to their future career. Dewar's (1990) study of North American PE students supports this view:

There was a small number of courses in the programme – socio-cultural courses – that challenged the scientific view of physical education presented in the majority of biobehavioural courses.... Although students were presented with a few opportunities to challenge the dominant ways of thinking about teaching and learning in the curriculum, they tended to view important knowledge in ways that defined scientific knowledge as really useful and any other knowledge that is critical of this as irrelevant. (p. 80).

As evidenced by PDHPE HSC markers' selections of first and second preference options (*Sports Medicine* and *Improving Performance*) they indicated a need for “*black and white answers*”: this approach was taken in the teaching of biomedical and anatomical facts. HSC options such as *Equity and Health*, *The Health of Young People* and *Sport and Physical Activity in Australian Society* challenged PDHPE teachers and their students to problematise knowledge and question the *taken for granted* view of health and physical education. For PDHPE HSC markers whose professional identity was formed around the certainty of subjects such as anatomy, biomechanics and exercise prescription, these HSC options are confronting and are the least preferred offerings to their HSC students.

By the inclusion of a biomedical and scientific approach in previous PDHPE syllabuses, PDHPE HSC markers have become comfortable with knowledge which involves measurement, observation, is tangible and certain. Tinning, Macdonald, Wright and Hickey (2001) suggest that by adopting this human movement science perspective, teachers who are now required to engage with curriculum discourses that are informed by a socially critical pedagogy have been challenged.

### ***Gendered Implementers of the Syllabus***

The dominant discourse cluster of the PDHPE community of practice of HSC markers adopted a *gendered* approach to the implementation of the syllabus. HSC markers'

survey comments indicate that male students were typically viewed as active, in need of kinaesthetic learning activities, lacking in their literacy ability and preferred HSC options which were easier or softer. These comments indicate that HSC markers' were drawing on traditional notions of masculinity, as they positioned their male students in this way. Markers further positioned particular aspects of the Stage 6 syllabus as more applicable to the learning needs of their male students. Those options with a practical focus, that are able to be answered in the HSC examination with tables, diagrams and dot points, and which do not require overly scientific or difficult content knowledge were clearly identified as more suitable for male students of lower academic ability. References to the "rugby team", "the basketball brats" and the "maths/science nerdy type students" position students in particular ways in relation to their gender and their academic ability. While the more academic students are perceived as being "nerdy" they are also described as being male and able to cope with the difficulty and demanding content of those HSC options requiring study of the "hard sciences". In contrast, this sample of HSC markers viewed their female students as able to respond well to extended HSC examination questions, happy to "sit and complete theory work" and able to engage with the socio-cultural perspective of health. HSC markers' comments such as "they're much better at the airy fairy ones [options] where they get to write a lot", are evidence of this gendered positioning of their students.

These traditional notions of masculinity and femininity can be attributed to the socialising forces of these HSC markers' tertiary preparation and participation in the culture of sport. Dewar (1990) in a North American study of pre-service PE teachers notes "that PE curricula reflected and celebrated elitist, white, middle-class, Anglo-Saxon male values" (p. 71). Similarly in Australia, Tinning (2004) characterises PE teachers as "insensitive to social issues, elitist, sexist, 'pragmatic sceptics' and anti-intellectual" (p. 244). This demographic profile invites the reproduction of traditional heterosexual, patriarchal attitudes and values, as witnessed by HSC markers' comments to the survey. Lawson (1988) states that:

in general, physical educators are quite conservative and the causes for this may be traced to their professional and occupational socialisation. Physical Educators are attracted to and socialised by two traditionally conservative social institutions; school and sport and hence their attitudes and actions are aimed more at reproducing the dominant curricular orientations than at transforming them. (p. 162)



Thus for the research sample of HSC markers, reproducing the patterns of HSC option selection by the dominant discourse cluster assists them to maintain their professional identity and reinforce the certainty and “masculine dominance” of their subject.

### **Members Creating Spaces for Change**

As evidenced in the selection of HSC options, there were a percentage of markers who engaged with the socio-cultural perspective of the 1999 Stage 6 syllabus. These markers selected *The Health of Young People, Sport and Physical Activity in Australian Society* and *Equity and Health* as their first preference options. The characteristics or factors which differentiated these HSC markers from their colleagues included:

- their years of teaching experience;
- marking HSC options with a socio-cultural perspective;
- their professional development selections; and
- their participation in overlapping communities of practice.

### ***Years Teaching Experience***

Those HSC markers with 11-15 years teaching experience were identified as being most likely to prefer those HSC options with a socio-cultural perspective. The stage of their career may have provided opportunities for these markers to be positioned on a variety of trajectories. Being recognised by overlapping communities of practice, or being targeted as an HSC senior marker may have positioned these markers as centripetal members of the community of practice: valued and respected for their domain knowledge of the “new” socio-cultural perspective. Those markers who could be considered as old-timers (Wenger, 1998) in the community of practice were more likely to prefer those options with a human movement science perspective than a socio-cultural perspective. Given the timing of the introduction of the syllabus (1999), these markers had experience teaching the previous Stage 6 PDHPE syllabus and had extensive years of teaching Years 7-10 PE. These markers would be considered by Wenger (1998) as being familiar with their territory, and viewed by other centripetal members as competent in their domain knowledge. Given the changing syllabus perspective, Wenger (1998) would suggest that these centripetal members of the community of practice may strive for continuity of practice to protect their cultural and historic heritage.

The legitimate peripheral participants (LPPs) in the community of practice of HSC markers (those with less than 3 years marking experience) also preferred those options with a human movement science perspective. As newcomers forge their identities in a community of practice they do not necessarily aim to discontinue or disrupt the established practices of the community. In order to gain membership in the

community they must be recognised as contributing legitimate participation, therefore they must recognise the shared history of the community's practice and find ways to contribute that provide an investment in their identity formation. As a result, newcomers initially reproduce or replicate the existing practices of the community, seeking continuity rather than discontinuity. Conversely, old-timers have significant investments in the rituals of their practice, yet they do not necessarily seek continuity. Involving themselves in the possibilities and imaginings of the practice, give form to new ways of belonging and afford them the opportunity to continue in their membership.

As newcomers to the community of practice, the LPPs could be said to be finding ways to learn the conventions, rituals, rules and language of the community and were therefore replicating the dominant discourses. In an effort to adopt an inbound trajectory, the LPPs in the research sample were finding ways to contribute to the community of practice that provided an investment in their identity formation (Wenger, 1998).

### ***Marking HSC Options with a Socio-cultural Perspective***

Responses to the HSC marker survey indicate that members of the community of practice who had marked one of the options with a socio-cultural experience were more likely to rank an option with a socio-cultural perspective as their first preference. As the Supervisor of HSC Marking has the responsibility to assign Stage 6 PDHPE teachers to options at HSC marking, this finding signals the potential for the community of practice of PDHPE HSC markers to become a dynamic learning community. Allocating a Stage 6 PDHPE teacher who has a history of teaching and marking an option with a human movement science perspective to *The Health of Young People, Sport and Physical Activity in Australian Society*, or *Equity and Health* would provide them with the opportunity to engage in conversations and practices that would challenge their subject knowledge and professional identity. Acting as LPPs in a new discourse cluster, these markers would be introduced to the specific jargon of the new practice (Hildreth, 2004), and by interacting and sharing their experiences with their colleagues these markers will redefine themselves in relation to the discourses to which they are being exposed. Wenger, McDermott and Synder (2002) suggest that communities of practice assist in constituting members' identity and constructing mutual relationships. Learning is inseparable from membership in the community of practice and as such, as members change their learning, their membership status and identity can also change.

### ***Professional Development Selections***

Participating in professional development other than the PDHPE Teachers' Association (PDHPETA) Annual Conference was a factor influencing HSC markers preference for selecting options with a socio-cultural perspective. Responses to the HSC marker survey and artefacts from the PDHPETA Conference Program pointed to the need for HSC markers to broaden their professional development horizons. Professional development opportunities offered by Local Interest Group (LIG) meetings, and consultancy secondments provided HSC markers with avenues to engage with a socio-cultural perspective. These opportunities were solely focused on the socio-cultural perspective of the syllabus whereas the PDHPETA Annual Conference provided participants with a breadth of workshops inclusive of both a human movement science and a socio-cultural perspective of health and physical activity. Essentially, by not offering alternatives, the LIG meetings and consultancy secondments were successful in positioning HSC markers as preferring HSC options with a socio-cultural perspective. This participation in overlapping communities of practice, or boundary experiences (Wenger, 1998) allows markers to gain different perspectives of their practice (Wenger, McDermott & Synder, 2002).

### ***Participation in Overlapping Communities of Practice***

HSC markers indicated that some members of the community of practice undertook "brokering" roles (Wenger, 1998) to establish credible and respected links between different or overlapping communities of practice. In this case, the brokers used the Stage 6 PDHPE syllabus to act as a "boundary object" (Starr, 1989) and initiated shared understandings of their practice; in this case a socio-cultural perspective of health and physical activity. The boundary object assisted in binding or bringing together members of the overlapping communities of practice and supported the creation of common language associated with the shared practice of teaching PDHPE. In relation to this research, the overlapping communities of practice included the presenters of the professional development workshops designed by sectors and systems to support the introduction of the revised syllabus, PDHPE consultants and academics. Wenger (1998, p. 161) states that it is through engagement with others in overlapping or connecting communities of practice, that individuals create bridges "across the landscape of practice". It is these bridges that will assist the community of practice of PDHPE HSC markers to sustain a community of practice that draws upon existing professional and personal networks.

## Summary

Chapter Five has highlighted how the community of practice of PDHPE HSC markers has engaged with both the 1994 and 1999 Stage 6 PDHPE syllabus. Members of this community of practice have continued to privilege those HSC options with a human movement sciences perspective as indicated by their selection of *Sports Medicine* and *Improving Performance*. Male markers prefer *Improving Performance* and their female colleagues prefer *Sports Medicine*. Members have voiced their commitment to participating in and teaching about physical activity and this factor has assisted in continuing their preference for those HSC options which provide opportunities for practical learning tasks. Further factors which influence PDHPE HSC markers' selections of HSC option include the academic ability, sex and interest of their students. The professional profile of the PDHPE HSC marker suggests that they are drawn to knowledge that requires "black and white" responses, rather than challenging information. Traditional notions of masculinity and femininity prevail in this community of practice as the sample of PDHPE HSC markers select HSC options based on their perceived applicability for female and male students.

By cultivating conditions conducive to change within the community of practice of PDHPE HSC markers, that is, assigning markers to options with a socio-cultural perspective, supporting their participation in a broad range of professional development opportunities, and providing opportunities for participation in overlapping communities of practice would be an impetus for encouraging HSC markers to engage with a socio-cultural perspective of health and physical activity.

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## Chapter Six

### Meet the Markers: Examining the Factors that Shape Professional Identity and Engagement with the Syllabus

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*Educational change involves learning about something new. Given this, if there is any single factor crucial to change it is professional development. In its broadest sense professional development encompasses what teachers bring to the profession and what happens to them throughout their careers.*

*(Fullan, 1991, p. 289)*

In Chapter Five, demographic data were used to construct a representative professional identity of PDHPE HSC markers. Building on this identity, this chapter aimed to examine the characteristics of those HSC markers who have engaged with the discursive shift of the syllabus. In order to explore what differentiates them from other members of the PDHPE community of practice, I undertook an in-depth investigation of the factors that influence their syllabus selections. The data for this chapter were derived from interviewing 25 PDHPE HSC markers who were purposively selected, based on their demographic profile and preferred engagements with the 1999 Stage 6 PDHPE syllabus. By examining the profile of these 25 HSC markers I found that their professional identities supported the “clustering” of discourses evident in the HSC marker survey. As a result, I have profiled four members of the community of practice of PDHPE HSC markers. These four markers were selected as their professional identity and experiences most typically exemplify those found in both the HSC marker survey and amongst the 25 markers interviewed.

I have used the data from these interviews to:

- identify their understandings of a socio-cultural perspective of health and physical activity;
- consider the ways in which they taught about a socio-cultural perspective of health and activity;
- explain the factors that influence their engagements with the 1999 Stage 6 PDHPE syllabus;
- explore their strategies for learning about a socio-cultural perspective of health and activity; and

- evaluate the level of support for engaging in and sustaining a community of practice as a professional development strategy.

The findings of the interviews presented in this chapter assisted to answer the research questions:

2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?
4. What is required to assist the Stage 6 PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

### **Profiling the HSC Markers**

Of the four HSC markers selected, two were female teachers, Jasmine and Ruby, and two were males, Patrick and Zach. Jasmine and Zach taught in government schools, while Ruby was employed in the Catholic system and Patrick, at the time of the interview, had recently been employed in the Independent sector. Jasmine and Zach could be considered to be very experienced, while Patrick and Ruby were early and mid career teachers.

Jasmine was representative of those HSC markers interviewed who had taught the 1990, 1994 and 1999 syllabus, had opportunities to participate in overlapping communities of practice, in her case, as a PDHPE consultant, had marked the HSC examination since its inception in 1992, and was viewed as a centripetal and respected member of the PDHPE community of practice. Furthermore, Jasmine represented those Stage 6 teachers who realised that in order to position their students favourably in regard to the 2001 HSC examination that they needed to fully engage with the socio-cultural perspective of the syllabus. Jasmine characterised those PDHPE teachers who were juggling and questioning their professional identity in light of the 1999 syllabus inclusions.

In contrast Ruby was a mid career teacher, who had minimal HSC marking experience. While Ruby was building a professional profile in the community of practice, she had not yet gained the kudos attributed to Jasmine by her professional peers. Ruby symbolized members of the community of practice who willingly and enthusiastically embraced the socio-cultural perspective of the Stage 6 syllabus and were participating in professional development opportunities that challenged their thinking about health

and physical activity. Both Jasmine and Ruby typified those PDHPE teachers who were acting as brokers across overlapping communities of practice.

As a recent graduate, Patrick represented early career teachers. Like the majority of the community of practice of PDHPE HSC markers, Patrick clearly aligned himself with the human movement sciences perspective of the syllabus and represented those teachers who were less willing to engage in learning about a socio-cultural perspective. Patrick exemplified the established professional identity of the community of practice as he voiced his lack of understanding and commitment to making change in regard to his pedagogical practice.

Lastly, Zach was selected as he characterised members of the community of practice who had been provided with the opportunity to explore and engage with overlapping communities of practice, however, this only served to reinforce his commitment to the hard science-based HSC options of the Stage 6 PDHPE syllabus. Zach's skepticism about change exemplified those teachers who were questioning both the inclusion of the socio-cultural perspective and questioning their professional identity.

### **Jasmine**

Jasmine is a Head Teacher PDHPE at a government high school on the outskirts of Sydney. Her tertiary preparation was during the late 1970s at a non-Metropolitan Sydney Teachers' College, where she completed a Diploma of Education in Physical Education. She later completed a Bachelor degree in another Australian state. This further tertiary study provided Jasmine with an additional qualification. However, according to Jasmine it merely reinforced the areas of study from her Diploma. Jasmine is a writer of PDHPE textbooks, has been a PDHPE consultant and has been an HSC PDHPE examiner since the first PDHPE HSC examination in 1992. These experiences suggest that Jasmine has or had multi-membership in overlapping communities of practice—as a student in an additional degree program, as a textbook writer and HSC examiner—related to the teaching of and learning about PDHPE.

During her undergraduate training, the subjects available to Jasmine for study were focused on those with a human movement sciences perspective. Subjects such as "Anatomy, Coaching, Exercise Physiology and Sports Science" formed the core of Jasmine's degrees; this was representative of most PE courses in Australia at the time. As Jasmine pointed out in the following comment, when she studied there were few subjects which addressed health and certainly nothing that she was aware of that dealt with a socio-cultural perspective: "See I'm an oldie so I'm left over from the days when there was only a little bit of health there and it was focussed on a bit of sex education

from what I can basically remember”. Jasmine recognised that there was a link between her tertiary preparation and the perspective she brought to her understanding of syllabus content. The following interview extract highlights Jasmine’s feeling that she was inadequately prepared in areas such as sociology:

Jasmine: Sociology is one area which I didn’t receive any training in at all. I don’t feel confident and even for the early course, even though it’s an area that interests me, I would have had to do a fair bit of homework for it.

Interviewer: Just to get your head around it?

Jasmine: Yes; unless of course there’s an adequate text or something there to help you. But that’s one area I don’t think we were prepared for.

With little else to choose from in regard to the content of tertiary preparation at this point, Jasmine reported preferring the “physiology of exercise type subjects”. It was not until she had the opportunity and the necessity to learn about a socio-cultural approach as a consultant, an HSC examiner and a textbook writer that her knowledge in this area developed. These positions required her to learn this knowledge and she acquired it primarily through her own efforts and through her experiences in overlapping communities of practice. In the following statement, Jasmine revealed the importance of gaining multi-membership in overlapping communities of practice, as well as learning about new concepts through her own research:

If I hadn’t done the work I’ve done: being a consultant, writing the textbook, I certainly think I would be behind the eight ball. I’m fortunate that I have done a lot of research and a lot of work around that [socio-cultural perspective], so I feel comfortable with it, but I think for teachers who haven’t had the same experiences as I have, it [tertiary preparation] wouldn’t have prepared them very well.

Jasmine contrasted her position with newer teachers who were struggling with understanding the socio-cultural perspective of health and physical activity and in implementing this perspective in their classrooms. It was evident from Jasmine’s comments that she considered that tertiary institutions were still not adequately preparing PDHPE teachers to engage with these new concepts. Jasmine pointed out that:

I’m just happy that I’ve done a little bit of writing and stuff around it [socio-cultural perspective]; that my head is around the content; because if it wasn’t and I know the poor teacher up at XX is having a struggle. It’s the first time that



she is teaching the course and she said 'I'm just one step ahead of the kids' and she is having a battle. I've heard that a few times, especially from the newer teachers. They don't have the old syllabus experiences to draw on to make sense of the new stuff. I think I'm at least, well, I feel comfortable with that.

In regard to tertiary preparation, Jasmine acknowledged the changes in tertiary preparation: "a lot of people are more invested in health these days, I think. I certainly hope that the tertiary courses are addressing that [socio-cultural perspective] a hell of a lot better at the moment. From talking to my staff, I think that some, only some are".

Jasmine talked about the need to sufficiently and effectively prepare pre-service teachers to form understandings of and engage with the socio-cultural perspective of health and physical activity. Jasmine's comment suggested that rather than through her tertiary preparation, that it was her experiences in overlapping communities of practice that had assisted her in feeling comfortable with the perspective of the 1999 syllabus. This suggests that Jasmine is supportive of and realises the benefits of active participation in a community of practice as a strategy for learning about a socio-cultural perspective.

Jasmine noted in her interview that:

It's chatting to people and coming up with a whole lot of things and then also using people with a bit of expertise such as XX at the Curriculum Directorate and bouncing those ideas off her; a bit of a network day, for teachers in this area or teachers across the board. ... I still would like to spend a little bit more time in chatting with other people and even some professional people and university personnel, to exchange ideas.

Jasmine recognised the discursive shift of the 1999 syllabus: "it's just that there's a new concept of social; there's social justice". The following interview extract highlighted Jasmine's understandings of the nature of this shift:

Interviewer: If you were to compare the new syllabus and the old syllabus, what would be their similarities and differences? Are they basically the same thing just written in a different way? What do you think about that?

Jasmine: No, I don't think so, especially the Core One, the community health type area and the personal health. I think it's written in quite a different way. It's very much about understanding; let me just use the syllabus

as a reference here. The fact that, I suppose the old one was pretty much in little segments I thought. It was just like a bit of a pooling of everything that related to health. Whereas this one has a bit of a theme running through it all the way, I think. It's very much about, in terms of the individual perspective, again it relates very much to the Ottawa Charter principles. It also relates to the socio-cultural type perspective and I think that does come through and I think it's a good thing.

It was evident from the following interview extract that Jasmine was aware of members of the community of practice of PDHPE teachers who were not fully engaging with the socio-cultural perspective of health and physical activity. Her involvement in overlapping communities of practice provided Jasmine with an understanding of the socio-cultural perspective. She suggested that other members, particularly inexperienced teachers; those that could be viewed as legitimate peripheral participants were grappling with implementing the socio-cultural perspective. This had implications for how Jasmine saw herself and her role in the community of practice.

Interviewer: Do you think you've got your head around the whole idea of this socio-cultural stuff?

Jasmine: I think I have, yes.

Interviewer: What about other teachers maybe in your school or in the area?

Jasmine: No, no, I don't think they do.

Interviewer: Is it just from chatting to them?

Jasmine: I think it's just a lack of experience of dealing with; well a lot of teachers were teaching that way in the end, I hope, anyway, towards the end of the last, the old HSC syllabus, especially when a lot of the exams had to start reflecting or asking kids to draw the links between all of the areas, like health promotion and with the major causes and social determinants. And I think the paper started to do that and teachers had to adjust to that too and so they perhaps did start to see those links themselves. But I still think they have a battle with it and I think they deal with it fairly superficially. When I chat to a couple of neighbouring schools and more inexperienced teachers, about where they are at and what they are doing, they've sort of just pushed through, especially the Year Eleven syllabus, I've noticed they just push through very, very quickly and also we were very pressed last year or this year with Year Eleven, trying to get them through the content. But I feel that they didn't and I wondered how they did that in the short time that they seem to have done it; to do it thoroughly or to do it with much significance and

even from the socio-cultural perspective, I didn't think they, from what I could understand they were saying, they didn't seem to touch on it in a great amount of detail.

Jasmine's comments reveal that at least from her perspective, that some members of the community, particularly new members, were essentially treating this perspective superficially. Jasmine suggested that this superficial treatment resulted from their lack of understanding of the socio-cultural perspective and the associated syllabus pedagogies. However, from her perspective, because of her depth of understanding of the nature of the syllabus, gained from her professional development opportunities as a consultant and textbook writer, the 1999 syllabus "is an interesting course that caters for a range of kids. They don't have to be physically oriented or have a passion for PE". This highlights Jasmine's engagement with the discursive shift of the syllabus and her broadened understanding of what constitutes the areas of Health and Physical Education.

When asked to compare the 1994 and 1999 Stage 6 PDHPE syllabuses, Jasmine commented that:

It very much relates to the socio-cultural type perspective and the Ottawa Charter principles. I think that does come through most of the new syllabus and I think that's a good thing.

Jasmine expressed her positive support for the inclusion of a socio-cultural perspective of health in the 1999 syllabus. As Jasmine had invested significant amounts of time, energy and commitment to the writing of textbooks which were underpinned by this perspective, and in her role as PDHPE consultant, it was not surprising that she supported the shift in perspective. This commentary clearly displayed that Jasmine had knowledge of the socio-cultural perspective in the 1999 syllabus. The specific examples of the Ottawa Charter and how it related to health promotion and social groups were indications of her understanding of this perspective.

While it was evident from the data that Jasmine was aware of the discursive shift in the 1999 syllabus, she expressed her concerns regarding the lack of relevance of this syllabus content to her students' lives. Jasmine commented:

I have some concerns in terms of the teaching of it. The health area tends to be a bit dry. The old Ottawa Charter again. As much as I understand it has to be there and it certainly forms the underpinning principles for any health promotion and things that are happening, in terms of health across Australia and worldwide, so it has to be there. But I must admit it's fairly dry to teach and kids have a little bit of trouble unless they're a bit brighter, in coming to terms with the concepts, even things like socioeconomic status and well, in my area, I have great difficulty because we're in a very Anglo Saxon, uh, I suppose it's the country, almost redneck area sort of thing. And trying to get those sort of concepts across, talking about Aboriginal health and how to deal with those minority groups, we get some fairly racist and very narrow minded comments.

Jasmine stated that: [she] “was past feeling comfortable with the content and now want[ed] to focus on accommodating senior students’ learning styles”. Given her substantial investment in having this socio-cultural perspective adopted, Jasmine was keen to suggest ways to ensure that her students were exposed to the socio-cultural perspective and that they could relate this perspective to their own lives. Jasmine explained:

I think also in Australia in a way, we have to understand where that's [social justice principles] coming from and why it is so significant. But getting kids to take it on board and use it freely or use it correctly is a little bit difficult and I've had to, I think keep going back over a lot of experiences which are relevant to them. I keep having to try and bring it back to their experiences or their situations. I think we get the concept through but whether they can still express it as well as they should be able to is a concern, I think.

Jasmine described how the subject cohort at her school was changing. As an *old-timer* (Lave & Wenger, 1991) in the community of practice of PDHPE HSC markers and teachers, Jasmine was able to map the changing terrain of the course. She noted that: “it has been interesting actually to watch the development of the course and who we have attracted over the years; and class sizes have dropped since the earlier days when we used to carry two Year 11 classes”. Given her centripetal position in the community of practice of PDHPE teachers and HSC markers, Jasmine was able to identify particular nuances in the nature of the student cohort studying the course. She explained:

... the fact that we are starting to attract, at our school anyway, a couple of what I call ‘real students’ and especially last year and this year, I’ve probably

got a couple who should score quite well and one at the moment who wants to do medicine. ... and she picked up other subjects such as Physics and Chem and it's nice that you've got a student who is doing well everywhere and wants to pick PE and she feels it will help her course.

Jasmine's comments about "real students" reinforce Goodson's notion (1989) of high status knowledge. In contrasting PE with Physics and Chemistry, Jasmine is highlighting the perceived lack of status of the PE in schools and the value of its knowledge to academically capable students.

While Jasmine realised that the 1999 course catered for a range of students' ability levels, she stated that:

... it's pretty much a theory based course and therefore I tell the students don't expect to go out into the paddock and do stuff like you have for the last four years. The boys generally then decide not to take the course. I think it's possibly a reflection of whether they think they can carry the workload or not.

This statement confirms Jasmine's perception of her participation in practical learning experiences and theory-based activities as a manual/mental dichotomy. The sub-text of Jasmine's comments suggests that those students who participate in physical activity are generally, less academically able or are less committed to undertaking theoretical work.

Jasmine suggested that the 1999 syllabus required PDHPE staff to teach it who "had their head around the content for a start; prepared to do a bit of research and work in coming to terms with the course and do a bit of reading". The need to develop a range of pedagogies to engage students in learning the content of the 1999 syllabus was also an issue raised by Jasmine. She commented that: "I really don't want somebody who is happy to just pick up a textbook and go from there". Jasmine described in detail the type of PDHPE teacher whom she thought could be entrusted to teach the 1999 syllabus:

Anyone who has experience, I would like to use them; someone who has taught the course before and has that depth of knowledge. People who are willing to put in the time, who just have commitment. I can see that just from their work and their initiative, that they actually chase things up and really have an interest in kids and their learning.

Jasmine was aware of the need for teachers to be able to draw on past teaching experiences and display a thorough knowledge of the content of the course. Thus Jasmine appreciated the need for currency of content knowledge and commitment to gaining this knowledge.

The shift in course content and the associated pedagogies, Jasmine pointed out had a significant impact on the sex and academic ability of the student taking the course. She noted that:

... it was terrible because I've only had one good male student in all the years I've taught it. ... A couple of very average students, a lot of boys who under achieve. It's boys who were just too busy with their sport or part time job and study and school took a back seat, a bit of a low priority.

Jasmine further stated that:

most of the boys I've had in the class have been very much all-round sports persons and so have an interest in it. And the girls have been very much a mixed bag. I've had girls who were sporty but also girls who were very much NOT involved with sport. In general the girls are interested in the health area.

Jasmine's comments confirmed the findings from the PDHPE HSC markers' responses to the survey question regarding the factors influencing their option preference. These responses stated that the sex of the student contributed to teachers' preferences for particular options (see Chapter Five).

Despite her understandings of those options with a socio-cultural perspective, the option Jasmine preferred to teach from the 1994 Stage 6 PDHPE syllabus was "coaching mostly; very much coaching". However, this was contrasted by her selection of options from the 1999 syllabus. Jasmine stated that her students were studying *The Health of Young People*: an HSC option with a socio-cultural perspective. These preferences were explained in terms of:

I suppose the type of student I had influenced what we chose. The fact that I did have ... as I said a lot of the sporting type boys, the all-round sports people and they were naturally wanting the coaching and also we had a feeder primary school which is basically right next door. And so we always linked in with them.

This was indeed the case for the majority of HSC markers who responded to the marker survey.

The interests of her students also influenced Jasmine's preferences for particular HSC options. When she had students who she judged to be capable of following their own interests she allowed them to pursue different HSC options. Jasmine stated:

I also had a year when I had some students who were not necessarily the sporting type kids; they were very interested in doing the drugs and HIV options from the old syllabus, so I allowed them to work fairly independently .... They picked it up and I fed them the stuff and checked on them every now and then and I suppose they put themselves through that option.

Jasmine also recognised that teacher expertise and comfort with the content of a particular option influenced the preference for particular options. She stated that: "it's where your comfort lies a bit. I mean I would have been happy to try a bit of sociology and you know the kids are keen to give that a try". Having credentials such as a Level One Coaching certificate contributed to the decisions Jasmine made about options. Jasmine also pointed out that one of her staff members had expertise in the area of first aid and was a member of the Fire Brigade. "So I often use his expertise. He is a very experienced first aider. He does training in first aid for the Fire Brigade". In the 1994 syllabus *First Aid* was a Preliminary course option.

In regard to the 1999 Stage 6 PDHPE syllabus, Jasmine selected the options *Sports Medicine* and *The Health of Young People*. Again the sex of her students influenced her final decision. She noted that "it was interesting, the girls were the ones that wanted to do *The Health of Young People* and the boys wanted to do *Improving Performance*". Jasmine suggested "it was an interesting sort of alignment there". In contrast to other members of the community of practice, who were selecting both options with a human movement sciences perspective (*Sports Medicine* and *Improving Performance*) Jasmine took the interests of her students into consideration when offering HSC options to her classes.

Jasmine was originally an HSC marker in the area of the human movement sciences, however later in her career moved to mark those cores and options with a socio-cultural perspective of health and physical activity. Jasmine stated:

I was a senior marker that year ... I missed a year and I came back and marked the community health area and I've been there ever since. And I suppose that's

where I picked up a lot of my textbook writing, because I was writing with X who was more comfortable doing the other stuff, so I naturally picked up on the community health and that has been my baby ever since.

Jasmine considered this to be “rather ironic because I’ve become better known as the person in the health priorities area. It’s funny how things go around, because I used to love sports science”. It appeared that Jasmine saw her experiences with textbook writing and engaging with members of overlapping communities of practice were strategies used for learning about the socio-cultural perspective and influenced the way other PDHPE HSC markers viewed her. Jasmine noted that:

because once you do a fair bit of research around that [socio-cultural perspective] and writing around that, you do become what a lot of people consider you as a resident expert. So that’s where I have been and in terms of a senior marker in the last couple of years I have been associated with the health stuff.

Described now from a position as “resident expert” Jasmine saw herself, as did teachers in neighbouring schools and PDHPE network members, as able and willing to share her experience with those teachers, who could be termed, the legitimate peripheral participants in the community of practice.

For example in the following excerpt Jasmine describes her actions as a resident expert working with another Head Teacher who could be considered as a legitimate peripheral participant in the Stage 6 PDHPE community of practice. She sees the importance of interaction with her colleagues as a useful resource in learning about a socio-cultural perspective.

Jasmine: ... the head teacher at XX hasn't taught the course before and she has picked up the new HSC and she feels she is having a great struggle with it, so we've had a couple of sessions together. But I find it good just to be able to speak to her about the stuff that I'm doing.

Interviewer: Exactly because it's a different perspective.

Jasmine: Yes, that's where it is valuable and that's why marking is so good too. You really need to have a network of people you can tap into a bit and obviously my co-author, XX, we often share a few ideas about how we teach and how we approach things.

Interviewer: I think you have to do that so you can keep a finger on the pulse.



Jasmine: Yes, I think so and anyone who tries in isolation, I really think you are fighting a losing battle.

These comments draw attention to the need for members of the community of practice to engage in shared experiences to interpret the syllabus and design learning experiences for their students. Jasmine pointed out that the mutual relationships built by participating in conversations with others were valuable in contributing toward shared understandings of the syllabus content. In this context, the notion of network building was crucial to gaining and maintaining an accurate understanding of the syllabus and creating appropriate pedagogies.

In her interview, Jasmine shared that she had career aspirations in the area of educational leadership and planned to study a Masters degree in the near future. Jasmine noted that she would like to move onto other areas in her career, away from PDHPE. Jasmine described her professional identity in terms of her age, her interests and motivations, her physical ability and her outbound trajectory from the community of practice. For example, she finalised her interview with these words:

I'm too old. I don't think any secondary student deserves a fifty year old PE teacher. As much as you say you can still hang in there and do all those things, I'm certainly not the same motivating force as my young people are, just because of my age, I think. I don't respond as well. The seniors are fine but the juniors look for people who are a bit younger and energetic and closer in age to them. I'm thinking I should just get my teeth into a Masters degree instead of any more textbooks. I think I should have been doing that all along.

Jasmine discussed her outbound trajectory from the PDHPE community of practice and now viewed her professional identity as being incongruent with that of a PDHPE teacher who needed to participate in PE at the Years 7-10 level. These comments highlighted Jasmine's understandings of the contrasting roles of PE in the Years 7-10 syllabus and the Stage 6 syllabus.

### **Ruby**

Unlike Jasmine, Ruby undertook her undergraduate tertiary training during the late 1980s and early 1990s at a religious tertiary institution in the suburbs of Sydney. Her initial degree was a Bachelor of Education. Despite Health Education being available for study as a minor, Ruby selected to study Physical Education and Science. Ruby has taught in a range of Catholic and Independent schools in the northern and western suburbs of Sydney and at the time of the interview had eight years teaching experience.

After teaching the 1994 Stage 6 syllabus for several years, Ruby completed a Graduate Certificate in Community Health to extend her knowledge of a socio-cultural perspective. The subjects in this postgraduate degree, Ruby identified as “health promotion, community health, Australian health care system and drug and alcohol studies”. Ruby pointed out that this postgraduate course was valuable as she “sort of had good links with the whole community health aspects of the senior course and hadn’t had any formal health curriculum training other than that”. As a result of her involvement in her postgraduate studies, Ruby stated that she was “probably more comfortable with the Community Health stuff now that I’ve had a lot more experience in it ... I’ve done a bit of study in that area so I feel like that’s fine”.

In response to the question “How well do you think your tertiary studies prepared you for teaching this new syllabus?” Ruby commented:

Oh not at all.... I did no Health so you can cancel out anything to do with Health. I did Motor Learning and Anatomy and Physiology; there was a bit of History and Sociology but only a little bit. My undergraduate course was of minimal relevance but I know that course is now defunct anyway - Thank God.

A critical moment in Ruby’s learning came from her experiences as an HSC marker. Having taught the HSC option of Community Health in her school, and marked, what Ruby termed, the “Health Core” for several years, Ruby was identified by the NSW BOS Supervisor of Marking as an appropriate HSC marker for this option. Ruby explained that:

I always put down that I would mark Community Health and Core One - you know the Health Core. So I pretty much ended up marking Core One or the HIV/AIDS option. Then one year I just got taken off my table and asked to mark the Community Health option because they needed a couple of people that were confident enough to just do the few hundred students that had actually sat for that [option]. So pretty much every year now I just end up on Community Health.

These experiences contributed toward Ruby’s interpretation of the changes to the 1999 Stage 6 syllabus.

Interviewer: We talked a minute ago about the socio-cultural underpinnings of the course. Do you actually see them as being just more explicit in this syllabus or were they there in the old one?

Ruby: They were probably there in the old one but I don't think that people really projected it from that perspective. It wasn't as questioning. I think they are a lot more explicit now to the point of mandatory and the whole social justice theme really runs through a lot of the topics. I mean, the way I understand it [a socio-cultural perspective], it's looking at the whole range of social and cultural factors that impact on the decisions people make about their health. So it's not as simple as saying 'you've made a poor decision so therefore it's your fault'. I think it's trying to get them to be a lot more appreciative of the social and cultural factors and why there's not equal opportunity for everyone. I think because of my Grad Dip that I feel comfortable with this concept. I feel a lot more conversant with it.

Ruby furthered voiced her opinion of the revised syllabus:

On the whole I was quite happy, as I said I was quite looking forward to teaching it [revised syllabus]. I think it's a definite improvement on the old course. I know some people will whinge about having the Ottawa Charter popping up a couple of times but I don't think that's necessarily a bad thing in terms of getting the kids to understand health promotion.

Ruby was generally quite pleased with the changes in the syllabus. Her response points to shifts to an emphasis of social justice issues and to the influences of socio-cultural factors on decisions about health. In her response, she indicates that she was familiar and comfortable with such an approach.

While Ruby stated that many of her students and other HSC markers "still think of it [PDHPE syllabus] as being PE based enough that they don't want to take it [a socio-cultural perspective of health] as an area of interest". This suggests that Ruby was aware of the differences between herself and other members of the community of practice who had not engaged with the shift in perspective.

Ruby further described the nature of the revised syllabus as one that:

has got real practical relevance, like that you actually get some skills to balance your own life. Plus I think that it has a fair degree of linkage to a whole lot of different careers, particularly health based. I think it's diverse, like they [students] get a real balance of the physical and the intellectual.

Ruby sees the syllabus as being “balanced”. She pointed out that there are opportunities to offer students a range of perspectives of health and physical activity, through their option selections. Ruby's broad tertiary experiences positioned her well in regard to being able to offer students those options from both a human movement sciences and a socio-cultural perspective. She explained:

I can teach HIV/AIDS – I had that under control. That was something that I had a lot of background in from my postgraduate work. As time went on I became more conversant with Community Health. The Anatomy and Physiology, I mean I could have taught that because I have a Science background and that didn't really faze me. I think some people get thrown by energy systems ... but I'm from a Science background as well as having that new Health background so I feel good with both sides, if you look at it that way.

Ruby described herself as “a fringe dweller at HSC marking” because she volunteered to mark one of the options selected by minimal candidates, and “enjoyed teaching the social justice side of the syllabus”. She was however, emerging as a respected member of the community of practice as she had been invited by her educational system to design resources to support the teaching of a socio-cultural perspective.

Her postgraduate studies, prepared her to experiment with a range of pedagogies as she was “confident enough not to panic over it [syllabus content] and try a few different things and different ways of doing it so [she] is not so focused on shoving the content down their [students] throat the whole time anymore”. Her interactions with those HSC markers who select those options with a socio-cultural perspective have assisted Ruby to engage with the changes of the syllabus. These engagements with centripetal members in the discourse cluster provided Ruby with opportunities to discuss the inclusion of a new way of teaching required by the syllabus. For Ruby, the biggest shift and challenge were the pedagogies that this new approach assumed.

Ruby suggested that “the whole ethos of it [syllabus] being much more inquiry based and that for me is a big difference whereas before we would have started with the content and not worried so much about the process”. While Ruby recognised the necessity to modify her teaching approach to the revised syllabus, she acknowledged that “I think it’s gonna take a bit of creative programming for a lot of schools and getting used to it and feeling comfortable enough to try a few different things”. Ruby was aware of the difference between herself and most other members of the community of practice of HSC markers. In response to the question “Is that [critical inquiry] a bit of a shift in most people’s teaching styles do you think?” Ruby replied “I hope there is but I’m not confident. I would hope that if people really had the time to put into looking at the new course they would see that you are supposed to attack it a lot differently”. Ruby believed that the experiences of HSC marking, program writing for the Diocese and reviewing the revised syllabus had contributed greatly toward her knowledge of a socio-cultural perspective. These experiences were clearly what Ruby saw as differentiating her from other members of the PDHPE community of practice. She realised that not all teachers were ready for the shift in perspective and pedagogy. She stated that “I know with my staff, if I don’t program it then some of them won’t take the initiative to try to think of different ways of presenting, you know, they like it in “black and white”, and from me. I think they see me as the expert. I don’t think that they really embed it [a socio-cultural perspective] in their teaching”.

Like Jasmine, Ruby describes how she structured her classes’ syllabus option selections to cater for students’ interests:

I had a couple of years where I had girls doing different options; usually it would end up being Applied Anatomy because you had your *scientific group* that really wanted to do something like that and then you had your *social health group*, so they ended up doing HIV/AIDS and the drug use option. We don’t have any preconceived ideas about *this is our school’s option* we always do these and I leave it up to the teacher and they negotiate it with the class.

Given her experiences in multiple communities of practice and her periphery experiences, Ruby was now able to view the syllabus from a different vantage point and allowed her students choice in regard to which options they studied. Ruby confirmed the results of the HSC marker survey, that given the opportunity to select HSC options, students will select options with a socio-cultural perspective (see Chapter Five). Ruby explained the options selection process used in her school:

Well, I tried to make sure that if I did a more scientific type of option that I also did a health based option. So I was trying to get a bit more of a balance in the course that way. I think trying to get a balance is important because we now have the two options to offer. I mean you've really got a choice if you want to steer the course in a more applied science type of direction or if you want to steer it in a more community health type direction.

Ruby did not assume that her students had a particular identity ("sporty" or "health") but rather provided the opportunity for her students to pursue their interests. Her balanced knowledge of both syllabus discourses positioned her well to teach all the HSC options.

As an experienced member of the community of practice of PDHPE markers, Ruby appreciated that students select the PDHPE course for a range of reasons. She stated:

Well I'd have to say that the majority of them [students] still probably have got an interest in sport. Some of them aren't sport-oriented but certainly it seems to attract kids that have an interest in sport. But more and more I think that we've started to attract the ones that are probably a little more capable in the English area as well, because they realise that they can't really manage the volume of content and the writing requirements without that.... I still think however, that they still have that connotation of it being PE instead of PDHPE.

She identified time and the nature of the student taking the course, as factors contributing to *if* and *how* teachers engage with the syllabus changes.

Like Jasmine, Ruby has had a range of opportunities and experiences in overlapping communities of practice. Ruby identified these experiences as pivotal to her developing her understandings of the revised syllabus. Ruby pointed out that of these varied experiences:

the network days were very useful because [she] was a step ahead of them in the sense that [she] really had to program it so [she'd] found a lot of teachers really don't get their head around the new syllabus until this year when they had to teach it, whereas [she] probably had to force [her]self to really examine it a lot more last year.

Given her participation in additional experiences, Ruby recognised that she was positioned well in regard to understanding and implementing the socio-cultural

perspective. Ruby acknowledged the benefit of being a member of the programming project to assisting her to make professional connections and produce units of work that were used within the Diocese. She described these experiences:

I've taken on a lot of it because I've actually been released from school to do programming for two Dioceses. So having had that opportunity has meant that I've actually managed to do it with one other person from another school and we've had the benefit of time in the school day, knocking around a few ideas with each other, getting a product together and then having the system support to actually get it formatted.

Ruby also valued opportunities to participate in overlapping communities of practice, as a member of the syllabus review team and program writer for her Diocese, and recognised these opportunities as contributing toward her interest in and depth of understanding of the socio-cultural perspective of the revised syllabus. The following excerpt from Ruby's interview highlighted this:

Interviewer: Are you comfortable with this concept? [socio-cultural perspective]

Ruby: Yes I think because I've had recent training in terms of my Grad Dip. I think that certainly made me feel a lot more conversant with it.... But I actually found that those Local Interest Group (LIG) days that we did before we started the course, the joint in-servicing, that if you didn't get ideas from that, then you must have missed something. I've taken on a lot of it because I've actually been released from school to do programming for the two Dioceses. So having had that opportunity has meant that I managed to get it.

Here Ruby described her support for using other members of the community of practice as a resource for learning. In contrast to her clear understandings of the new syllabus, Ruby described her colleagues' understanding of a socio-cultural perspective as follows:

I think that they [other PDHPE HSC markers] perceive that Community Health is more boring to mark and more difficult to mark because the potential variables of how the kids can attack it are much wider....I think some people have a real block on it and I actually think some teachers don't really understand some of the principles that they are trying to teach. They aren't really confident

marking all of it.... They have this real panic attack each time, like 'oh yes, what if I don't know it as well as I'm supposed to'.

What differentiated Ruby and those others of whom she was representative, from other members of the community of practice was that she had developed a commitment to learning about a socio-cultural perspective and had willingly participated in available professional development opportunities in order to strengthen her understanding of the perspective.

Ruby assisted her staff to engage with the new syllabus by sharing her experiences with them in order to "broaden their horizons". Ruby explained that on her return to school from HSC marking she:

would do a little bit of a workshop about how that option is marked and some tips perhaps for passing onto students in terms of how best to sit for that question in the paper. And then we would apply a similar style of marking to the trials or the half-yearlies.

Ruby voiced her plans for changing from teaching to another career area related to community health. This was an indication of her commitment to and comfort with this area and the lack of extent to which she thinks that this perspective will be engaged by other members of the PDHPE community of practice. She shared her thoughts regarding her understanding of and engagement with the revised syllabus, and highlighted how she wished to assist inbound members of the community of practice to make meaning of the syllabus before she changes careers.

It is my interest in the 'whole social health thing' that helps me to appreciate the changes to the syllabus. I want to show other teachers how to use different ways to make this content interesting to students. I think that I can do this because I did a lot of programming work for the Diocese on it so I felt I'd had the most in-servicing and had done the most lead up work.

Despite her sense of confidence and feeling comfortable with the new aspects of the syllabus, Ruby still felt that she was:

an outsider, because most other teachers aren't really interested in the HSC Core One stuff. They tell their students 'let's just get through this and then we can do the exciting topics [Factors Affecting Performance]'. Sometimes I feel



more aligned with the consultants and uni folks because I do understand and like this stuff.

This indicated that Ruby viewed herself as a peripheral member of the community of practice of PDHPE HSC markers. Despite this, she could see herself as someone who could contribute greatly to helping other teachers. However:

they have to want to learn about the syllabus. I think that most of them are just scared because it's something new and it questions who they are a bit. They see themselves and their work as PE teachers. Most of the way they talk about themselves is about practical things, sport, games, teams, so it's hard for them to teach about social justice when most of them are pretty competitive and work with the kids who are sporty. When I do marking I see how difficult it is for some teachers who mark Core One or the health options. They really struggle with the content, but as the week goes by and they talk with the senior marker and their table people, you can see that they start to get a handle on it a bit and some of them even say that they want to teach that option next year. A big turn around. I'm not sure why I'm different. Maybe because I've done lots of other stuff with people outside the PE circle. This makes you look at stuff in a different way.

For Ruby, there was a close relationship between her identity and engagement with the syllabus. She attributed her differing community identity to her experiences with overlapping or other communities of practice. She further attested to the value of networking at HSC marking to assist markers to come to terms with the meaning of syllabus content and engage with the socio-cultural perspective of health and physical activity. Ruby saw herself as a translator of the syllabus content and pedagogy; being able to draw upon her extensive experiences with others to make meaning of the syllabus changes. Wenger (1998) would view Ruby as a broker, who used the syllabus as a boundary object to engage in dialogue with her peers around a socio-cultural perspective. As a final remark, Ruby pointed out that she:

could help others to understand the syllabus, particularly the social construct stuff in terms that they would understand and give them examples of how to teach it to their kids. That's what is important. If they don't know how to teach it, they'll avoid it or skim over it.

## **Zach**

Zach undertook his undergraduate tertiary training during the late 1980s at a Sydney metropolitan university. His degree was a Bachelor of Education, in which he majored in Physical Education. At the time of the interview, Zach had been teaching for ten years and had eight years experience teaching the Stage 6 PDHPE syllabus. Zach had taught in both Sydney metropolitan and country NSW government schools. Zach had only ever marked HSC options with a human movement science perspective.

Zach described himself as an “anatomy and exercise physiology person”. He pointed out that he had never taught the HSC options of “HIV/AIDS, Drug Use and Sociology. I don’t know, I mean I wouldn’t say this to XX but I just don’t find the sociology one interesting. I don’t find I could do it justice as a teacher really”. Zach openly voiced his lack of expertise and understanding in the options relating to social justice:

All that stuff, I think that’s a real grey area. In fact I’ll tell you what I do know is being involved in it with the BOS and even the twelve people I worked with had a real problem with it. You can sit there and say ‘what do you think about the social construct?’ and they would nod their heads but they had no idea. The bottom line is they had no idea and I’ll freely admit that I had limited ideas on it myself. I think what makes it a grey area is that it is I suppose a bit of a departure from what we’ve normally taught in PDHPE.

These comments indicate Zach’s alignment with the human movement sciences perspective and that he viewed the socio-cultural perspective as somewhat vague and uncertain. For Zach, the socio-cultural perspective deviated from the factual, rational and technical approach that had formed a substantial part of his undergraduate degree.

While Zach had been invited to form part of a NSW BOS review panel to critique the 1999 Stage 6 PDHPE syllabus, these opportunities were limited to his areas of strength in exercise physiology and anatomy. Zach pointed out that “once again I had the expertise in the Sports Medicine and Exercise Physiology area. I spent a fair bit of time redrafting that area”.

Zach was clearly skeptical of the revised syllabus, particularly the socio-cultural perspective:

I'm not necessarily convinced that we needed to go to the new HSC syllabus. I know that it was political and we had to do it, but to me they've left out some of the key stuff like HIV/AIDS and communicable diseases. I don't know, but my own personal feeling is that it has been watered down rather than beefed up. The socio stuff I don't think has much substance really.

These comments were affirmed by Zach's later statement that expressed his disappointed attitude to Biomechanics being deleted as a separate option in the revised syllabus and being minimally represented in HSC Core two.

Zach defended his lack of understanding of the socio-cultural perspective by criticising the DET for its lack of adequate professional support associated with the introduction of the syllabus. He argued:

we have basically been thrown a syllabus and said 'go for it guys'. The professional development so far has just been absolutely ludicrous. As far as I'm concerned it's a disgrace.... We are supposed to have an idea about it [socio-cultural perspective] but we don't have the resources to support that, which is another one of my criticisms of the curriculum directorate, because they really haven't provided us with any way to substantially get that across to our kids and that's their job.

Zach expressed his concern for and insecurity toward how to teach a socio-cultural perspective of health and physical activity. He pointed out that:

Some areas I feel more comfortable than others but with the HSC stuff, we started with Core One and I just find the areas on social construct and social justice and trying to word those for the kids, you know, getting it right, I'm finding that difficult. Definitions are a big problem, like just in terms of trying to put it in perspective for them and something that they are able to relate to, there's not much around. Well, I think that even with a definition they find it difficult to apply it and I think that's an area I'm finding because I like to give lots and lots of examples for kids to use.

Zach attributes his difficulty in making the content relevant and meaningful to the lives of his students, to his own lack of understanding of the socio-cultural perspective. He argued that this was due to the lack of resources he needed to be able to teach the revised syllabus content: "There's little to go on at the moment. I haven't traditionally used textbooks in the past but I think I need to have a good look at one to see if there is anything that will help me with that [social justice principles] at the

moment". For Zach, including a question relating to social justice or social construct was "*incredibly unfair*". Zach acknowledged that:

Yet I'll guarantee you and I'll put money on it that come HSC time next year there's going to be a question in there that in some way brings in the words 'social construct' or 'social justice' and it's going to trip up an awful lot of people.

It was obvious from this remark that from Zach's point of view, the majority of HSC markers and teachers had little understanding of these concepts and felt inadequately prepared to teach [or failed to teach] their students about a socio-cultural perspective.

Zach blamed his tertiary training for the way he saw the syllabus:

I haven't done any postgrad work but I've done a lot of research writing and exam writing stuff.... I don't know how much university has changed since I've been there but I can tell you a lot of stuff we did was just useless for preparing me to teach this syllabus.... My course was very practical oriented.

Zach's HSC Marking opportunities focused on the scientific aspects of physical activity and he recognised how this impacted on the way he saw himself and engaged with the syllabus.

Biomechanics and Exercise physiology, that's my strength. That's who I am, I guess. As a marker I always mark the exercise physiology stuff, in the old core four. But as a senior marker, I've taken over the option of 28A, the biomechanics. I've done that for three years now, so that's my field. The supervisor of marking recognises my ability in that area.

Neither his tertiary preparation nor HSC marking opportunities provided Zach with adequate support for the shift in syllabus perspective. In regard to learning about a socio-cultural perspective of health and physical activity, Zach suggested that:

[The] DET should be actually getting their people out in the field; this is my belief. They should be having people out in the field and sitting down and talking to districts. I mean they could put on district days where they could say 'right, the new syllabus has been in for such and such a time, what are your major concerns?' And they should be getting them from people like me saying 'listen, this area on social construct, social justice is a real problem. You guys

need to come up with the stuff that we can concretely give to our kids in schools, that is going to be helpful'.

Zach's choices for HSC options were *Sports Medicine* and *Improving Performance*, and he offered no other choices to his students. Zach described this as "one area of deficiency, as we choose the options for the kids". In describing the reasons for undertaking this process, Zach justified taking this approach by saying:

I'm upfront with them [students] and tell them 'look if you would choose to do sociology I really probably don't have as much expertise in that so I can't help you as much as if we did the other options'.

This statement reinforced the findings of the PDHPE HSC marker survey (see Chapter Five), whereby markers identified teacher expertise/knowledge as a factor that influenced their preference for syllabus options. When questioned why he did not select any of the other options, Zach stated:

I just don't think that the other ones had much substance really, to be truthful, I just felt that they would get more benefit out of those ones. I think *Improving Performance* ties in extremely well with Core two. So in terms of double up workload, I think that's probably a good reason, maybe not a good reason, but a reason why I did it. And I think it [*Sports Medicine*] has a little bit more rigour to it as well. I think that it goes toward my doctrine of giving them life skills.

Zach's obvious resistance to these curriculum changes could be attributed to a multitude of factors. First, Zach's traditional scientific tertiary preparation; his lack of understanding of the socio-cultural perspective; his vested interests in the human movement sciences perspective, as evidenced by his HSC marking experiences; and the kudos he has received as a member of the NSW BOS syllabus review team, explain his lack of engagement with the socio-cultural perspective. Zach has also made significant public contributions to Local Interest Group (LIG) events relating to the revised syllabus and viewed himself as influential both in his school, as the PDHPE Head Teacher, at department level and as a member of the community of practice of PDHPE HSC markers. Zach stated:

I think that my profile in the school might influence students, particularly the boys because I do a lot of sport with the kids and so I think they know who teaches the course.

As a product of his personal and professional experiences, Zach has influenced the perspective taken by other members of his PDHPE staff. Zach admitted to his own discomfort with the socio-cultural perspective and talked about how he engaged in dialogue with other members of his faculty around the dichotomy of the two syllabus perspectives, advocating for the human movement sciences perspective in *their* option selection. Zach pointed out that the gender balance of students taking PDHPE as a subject had changed since he arrived at the school. “Actually, it’s quite funny because two years ago I had a class of 26 with only two boys, now I’ve been here awhile there are 23 kids and I’ve got only five girls”. It is likely that Zach’s modeling of traditional masculine discourses associated with physical activity, whether consciously or not, has influenced the sex of the student selecting the subject for HSC study.

As Head Teacher PDHPE, Zach had met with his staff to discuss the available options to offer the HSC students. Zach declared that “I sat down and basically said ‘look, let’s take it to the kids and tell them what the options are but tell them why we recommend that we’re going to do these ones’”.

The underlying interpretation coming in to play here is the notion of power, as a Head Teacher, and traditional notions of masculinity associated with the human movement sciences. Zach argued that the options he selected for the HSC students to study were “one, enjoyable; and two, useful, whether that be tertiary or further education, or simply using the course in life”. At his most recent school, Zach described the nature of the students who selected to study PDHPE as:

a mixed bag. The last couple of Duxes at the school have been PDHPE students as well, which is a feather in our cap because we’re talking 99.75 UAI. So quite intelligent kids. I just think though that prior to me getting there they probably wouldn’t have picked PDHPE; they would have been steered away by the careers advisers into science based subjects.

Within the cohorts of students studying PDHPE, Zach suggested that there were “a number of students who really don’t have the academic ability to handle the course but they get a lot of other outcomes out of it, in terms of just enjoyment and life skills”. Zach acknowledged the “fairly high Aboriginal population” in his school, yet felt that the *Equity and Health* option in the 1999 syllabus—which included Aboriginal and Torres Strait Islander health as a case study— would not be relevant to his students.

When questioned about how the options were selected for students of differing ability, Zach explained that “we chose Sports Medicine so everybody could do it, and get something out of it and Improving Performance for those others based on their ability”. These statements further reinforce the findings of the PDHPE HSC marker survey that indicated that student academic ability influenced option preference. Zach’s decision to select these options was supported by his male colleague in the Faculty, although his female staff member preferred the *Community Health* option. Zach stated:

X (male) and I made those decisions as the two teachers with it. ... The other female teacher (Y), she teaches the Community Health option. I think that she just felt comfortable taking that area. Y was very involved with it [community health] with the previous and now retired teacher. I’ve only been here three years but we’ve changed what we teach since then.

Zach indicated that since his employment in the school changes had been made regarding the HSC options offered to students. The female teacher had been encouraged to now offer those options with a human movement sciences perspective, as a result of this influence as Head Teacher.

Zach felt that his staff was prepared for the introduction of the revised syllabus. He stated that:

We always anticipated it right from day one of the new syllabus being suggested and all the draft stuff had come through. We’ve been preparing for it since way back then.... I mean it’s no use standing around waiting. So we had things pretty much organized. We’re not quite there in terms of resourcing it yet.

Despite the advance preparation for the introduction of the revised syllabus, Zach’s final comment reflected his discomfort with the 1999 syllabus. He stated:

It will take me another couple of years to feel comfortable again and that’s not to say we don’t teach it well, but just to feel comfortable.

### **Patrick**

At the time of the interview, Patrick was a recent graduate of a Bachelor of Education degree in Health and Physical Education (Honours), at a non-metropolitan NSW university. He completed his undergraduate degree in 1996 and then furthered his

academic qualifications by completing a Master of Education (Honours) in 1998. Patrick was employed in an Independent Selective school on the south coast of NSW. With four years teaching experience, and four years teaching Stage 6 students, Patrick had been identified by the NSW BOS Supervisor of Marking as a new HSC marker. In 2000, Patrick had two years HSC marking experience in the option *The Art and Science of Coaching*.

When he first taught the syllabus, he said “I was flying blind, with that first year twelve class”. Although he had recent tertiary qualifications in health and physical education, he admitted to a level of discomfort with the concept of social justice. The following interview extract identifies this lack of understanding:

Interviewer: The syllabus talks about the socio-cultural underpinnings. How are you getting your head around that?

Patrick: I must admit not overly well, probably because my background is not in that area, so I suppose I’ve relied more on just focusing on what’s actually in the syllabus; the learn to and learn about. So yeah, the concept of social justice is a new one to me. So I’ve struggled a little bit with that.

From his vantage point, as a beginning teacher and HSC marker in the area of coaching, Patrick pointed out that he saw little difference between the 1994 and 1999 syllabus. Patrick explained:

I actually quite like it [1999 syllabus]. ... It’s easier to understand. Like I say, I’m not altogether there yet but I think it’s a good idea. It puts a bit more onus on the kids.... I don’t see it as being too dissimilar to what we had before really. It just seems to be presented in a slightly different way. I think there’s little difference, other than having to go through the process of cleaning out some old activities and thinking along a new strategy of critical inquiry.

Patrick recognised that the syllabus teaching strategies had altered to include critical inquiry and practical application, however, he expressed his concerns regarding actually incorporating this approach into his teaching. His comments highlighted this:

The only real difference is trying to focus on this critical inquiry and that’s been a little difficult. You know, because when you think you want the kids to find the information but sometimes you have to give it to them.... Well, getting



the kids exactly where you want them, because you are on a timetable as well and you have to cover the information and if they go one way with the critical inquiry, you don't want to discourage it, but at the same time you have to pull them back. And if they're taking too long to get there, then you end up wasting a lot of time getting back on or find yourself backed up.

These comments can be contrasted with both Jasmine's and Ruby's ability to experiment with a range of teaching approaches as a result of their comfort with the syllabus content, and their teaching experience and expertise.

Patrick contrasted his view of the syllabus with those of other members of his faculty. Despite his lack of comfort with the social justice areas of the 1999 syllabus, Patrick proclaimed that he "wouldn't say that the impact of the new syllabus has been all that huge".

He furthered commented that he was selected to teach the Stage 6 syllabus because his "head teacher had been teaching for a few years now and prefers the year 7-10 stuff. He sees the syllabus as a bit of a challenge and a big change". Patrick commented that he was probably best positioned to teach the syllabus "because of [his] recent uni stuff".

Patrick explained that his undergraduate training included a few subjects on sociology and health, but "it was all that airy fairy stuff. You couldn't really take notes on that stuff, so I'm not really prepared I guess to teach this [socio-cultural perspective]". The perspective that Patrick brought to his understanding of the revised syllabus was influenced by the way he saw himself, as a "sports administrator, coach educator", and the subjects that he chose to pursue during his Masters degree. Patrick voiced his preferences for "the practical stuff at an undergrad level and the coach education stuff at a postgrad level". Despite the opportunity to pursue a Masters degree that focused on health education or socio-cultural studies, at his chosen university, Patrick identified his preference for "being outside and throwing the ball around and doing that sort of stuff rather than being inside. I guess that's why my thesis was on coaching".

Given this position, Patrick identified his preferences for "Sports Medicine and Improving Performance" as the two options he would teach from the revised syllabus.

I feel most comfortable with these areas because I had a good background at uni and we did quite a bit of it at uni and also I was able to, in teaching it, I was able to draw on those uni resources, because I was only a stone's throw away.

Patrick's interest and his assessment of his students' ability influenced his preferences for "*coaching in the 1994 syllabus*". As well as his interests in these areas, Patrick recognised that:

I suppose, because I coach myself, so I've always had an interest in the idea of coaching. I suppose it's easier to teach something you are comfortable with, especially when you are flying blind. I mean I did think about doing Biomechanics because it's a better candidature at the HSC level and the kids get better marks. But at the same time we don't have brain surgeons coming into the class. So it's easier for them to comprehend the coaching side than the Biomechanics option.

Patrick described the composition of his PDHPE classes as follows:

We don't have the kids, all the high flyers. For some reason the subjects always land on the same line as things like Physics and Chemistry. But in saying that, we have managed to over the last couple of years, nut out the kids that do it for the soft option, which has been the trend in the past.... So I suppose half my class usually are fitness people; people with a sporting background, keen to go out in the field and others that just have a general interest in health.

Patrick justified his decision to select the HSC options for his students based on his interests and level of expertise in the option content. This reaffirmed the findings of the PDHPE HSC marker survey, indicating that teacher confidence and level of expertise in a particular area significantly influenced their option preferences. Importantly, Patrick pointed out that PDHPE was not to be viewed as a soft option by students, and he had instigated measures to counsel those students who held this attitude to the subject. Patrick further described the make-up of his PDHPE classes as "a pretty good mix, a good balance of boys and girls".

As a means of learning about the socio-cultural perspective of the syllabus, Patrick drew upon his undergraduate university notes and lecturers as a source of support. He commented:

... it was nothing short of demanding, but some good resources and I thought about what I had done at uni. I knew a few of the teachers around here anyway

through my work at uni, so I was able to draw on some of their expertise.... Uni is only a stone's throw away.

With minimal years of teaching experience and no direct mentoring occurring within his PDHPE faculty, Patrick recognized the value of networking and boundary encounters with members of the university who acted as delegates from an overlapping community of practice. Patrick also participated in a range of professional development opportunities provided by the Association of Independent Schools which focused on the implementation of the 1999 syllabus. He shared his opinion of these experiences in the following statement:

I found the inservice really quite good actually. Well the first programming one was good because it really showed me where I need to go and the second one I went to, which was a review of what I should be doing, was reassuring because I discovered that I was actually doing the right thing. So it was nice to know that I was on track.

As well as attending these formal professional development experiences, Patrick talked about his need to informally network with other teachers who were implementing the syllabus.

I think sometimes that it's a little bit hard being on your own, being by yourself in the school. I want to phone other people but that takes a bit more effort and time, but I need to talk sometimes and just having somebody in the same staffroom that you can just talk to about it is what I need.

Patrick also acknowledged the need for further support in the form of a textbook to use to teach the 1999 syllabus. This could be taken to imply that he was not confident of the revised content or had little past experience in translating content into classroom practice. He pointed out that "it was difficult not having a textbook at the moment. I mean we still don't have a Year twelve one".

In regard to teaching the 1999 syllabus, Patrick pointed out that his university experiences had positioned him reasonably well, however, he concluded:

I think the course is changing and not necessarily for the better. The amount of prac studies they are doing at the moment is decreasing and they are doing more stuff on health and the social subjects, which I don't agree with.

## Discussion

The following section of this chapter discusses the four HSC markers':

- professional identity;
- engagement with the syllabus; and
- critique of participation in a community of practice as a framework for professional development.

These areas of discussion align with the research questions:

2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change? and
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

### **Professional Identity – Positioning in a Community of Practice and Trajectory**

Participants in a community of practice define themselves by the way they participate in their practice, as central or peripheral members, as well as, by the way others view their participation in the practice. Participating in a practice gives identity as a practitioner in that particular field. Identity and practice are therefore closely interrelated. Wenger (1998) suggests that “practice entails the negotiation of ways of being a person in that context” (p. 149). A community of practice entails the negotiation of members’ identities. Identity can be defined in regards to the relations that develop in a community. These relations legitimate members’ participation in the practice as well as the members’ *place* in the community. Practice essentially defines which members have expertise and who holds positions of peripheral and full participation.

Wenger (1998) explained the concept of identity not in a dichotomous fashion—individual versus communal identity—but rather:

as a pivot between the social and the individual, so that each can be talked about in terms of the other.... The resulting perspective is neither individualistic nor abstractly institutional or societal. It does justice to the lived experience of identity while recognizing its social character – it is the social, the cultural, the historical with a human face. (p. 145)

Given this way of presenting identity, the four PDHPE HSC markers talk about their identity as members of a social community. Jasmine and Ruby have forged new identities as a result of their opportunities to participate in overlapping communities of practice. Their new identities have been, in part, created by participating in “brokering”. Brokering involves the process of connecting with others “who can introduce elements of one practice into another” (Wenger, 1998, p. 105). As a product of their multi-membership in overlapping communities of practice, Jasmine and Ruby were acting as translators of practice. They were transferring their understanding of a socio-cultural perspective to other members of the community of practice of PDHPE markers and teachers, in their own schools, through leading system-based professional development opportunities and through interactions at HSC marking. Both Ruby and Jasmine were viewed by members of the community of practice of PDHPE HSC markers and teachers as legitimate, respected and trusted centripetal members. In order for their brokering to be *successful*, Ruby and Jasmine required the skills to “influence the development of practice, mobilize attention, and address conflicting interests” (Wenger, 1998, p. 109). Their multi-membership allowed Ruby and Jasmine to both gain a different view of the world, and bring this view to their practice, and the practice of colleagues. Using what Wenger (1998, p. 105) terms “boundary objects”, Ruby and Jasmine assisted PDHPE teachers and markers to *connect* with the intentions of the 1999 syllabus. In this case, the boundary objects were the 1999 syllabus, professional development workbooks, and system-developed units of work. These boundary objects acted as common ground, connecting different perspectives of members and providing a focus for shared dialogue around their meanings and implementation possibilities.

Wenger (1998) suggests that participation in overlapping communities of practice, assists elements of discourse to “travel across boundaries and combine to form broader discourses as people coordinate their enterprises, convince each other, reconcile their perspectives, and form alliances” (p. 129). In this case, Jasmine and Ruby had drawn upon the resources, both human and material, from other communities of practice to import the discourses around a socio-cultural perspective of health and physical activity to their practice, and share them with other community members. In contrast, Zach’s experiences in overlapping communities of practice, as presenter of professional development workshops for the DET, and as a member of the syllabus review team, merely reinforced his preferences for those options with a human movement sciences perspective. Subsequently, Zach was not a translator of new knowledge but rather an advocate for continuity of practice (Lave & Wenger, 1991).

As Ruby, Jasmine and Zach were conversant with the community's rituals, language, stories and history, they were viewed as competent and full members. Wenger (1998) suggests that how others view a member of a community of practice is based on their perceptions of that member's levels of competence in the practice. Therefore, Jasmine's, Ruby's and Zach's community identity would be perceived as centripetal as their commitment to the domain of interest was valued and recognised (Nardi & Miller, 1991). Wenger (1998) suggests that members of a community of practice who "talk the talk" and are "familiar with the territory of their practice", would be viewed by other members as master practitioners (p. 152). Jasmine, Zach and Ruby were viewed as highly conversant with their practice as evidenced by invitations from other agencies to translate the 1999 syllabus meanings for their peers. However, Jasmine and Ruby's role in the community was to draw on their competent identities, "boundary encounters" (Wenger, 1998, p. 112) and community artefacts to assist the community to learn about the socio-cultural perspective of the 1999 syllabus.

This competence allowed Jasmine and Ruby to authentically engage with others, and make use of the community's history in shared memories. Competence is seen as a dimension of identity. Essentially membership constitutes identity through forms of competence.

As full participants in a community of practice, Jasmine and Ruby were expected to share their resources, those that they used to communicate and undertake their practice. Having multi-membership in communities of practice, and having experienced the implementation of a previous Stage 6 PDHPE syllabus created a "history of war stories" (Orr, 1997) upon which Jasmine and Ruby had drawn. They were also aware that they could rally this history to assist other members in the community of practice who were experiencing difficulty with the reading of the 1999 syllabus. Wenger's (1998) framework of identity in practice, suggests that:

sustained engagement in practice yields an ability to interpret and make use of the repertoire of practice. We recognise the history of practice in the artefacts, actions, and language of the community. We can make use of that history because we have been part of it and it is now part of us; we do this through a personal history of participation. As an identity, this translates into a personal set of events, references, memories, and experiences that create individual relations of negotiability with respect to the repertoire of a practice. (p. 153)

These dimensions of competence then become dimensions of a practitioner's identity. As old-timers in the community of practice, Ruby and Jasmine have significant investments in the rituals of their practice, yet they did not necessarily seek continuity. Early in their careers, both Ruby and Jasmine aligned themselves with HSC options that reflected a human movement sciences perspective. However, as they participated in the community's practice of teaching and marking the HSC and engaged in boundary encounters their preference for those options with a socio-cultural perspective developed. Given the substantial investment in time, energy and commitment to professional development, having the socio-cultural perspective of the syllabus recognised as legitimate was important for both Ruby and Jasmine (Wright, 1996).

With this new knowledge and perspective, came a new community identity. Jasmine recognised her altered community identity and voiced her intention to pursue an "outbound trajectory" (Wenger, 1998, p. 155). This trajectory will lead Jasmine out of the community of practice of PDHPE markers and teachers and enable her to form new partnerships, forge new relations or reposition herself differently in an overlapping or new community of practice.

Jasmine adopted a particular way of thinking about teaching, and of the socio-cultural perspective of health and physical activity. Despite a discursive shift in her teachings of the Stage 6 PDHPE syllabus, Jasmine still described herself in a traditional way. She saw herself as a teacher of Physical Education, rather than PDHPE, talking about her teaching of the Years 7-10 syllabus only in relation to the practical components. Jasmine focused on her ageing and positioned herself as deficient in terms of motivating students, and being energetic. While Jasmine established a community identity aligning with the socio-cultural perspective of health and physical activity, her individual professional identity was framed by the traditional discourses surrounding physical activity and the body as an object to maintain (Evans, Davies & Wright, 2004; Gard, 2004; Gard & Wright, 2001; Kirk, 1997).

In talking about the near future, Ruby positioned herself on a *boundary* trajectory. She pointed out that she saw her role as assisting the establishment of credible and respected links between different communities of practice, and assisting inbound members to make meaning of the syllabus before she changed careers. In this role as a broker between communities of practice, Ruby described herself as a "fringe dweller", a position often adopted by brokers as they coexist between communities and carefully negotiate "yielding enough distance to bring a different perspective, but also enough legitimacy to be listened to" (Wenger, 1998, p. 110). Belonging to multiple

communities of practice requires members to reconcile and negotiate their identity. Multi-membership in communities of practice also involves the interweaving of several trajectories. Through engagement with others in overlapping or connecting communities of practice, individuals create bridges “across the landscape of practice” (Wenger, 1998, p. 161). The individual silently weaves a link between their identities and multi-membership in their communities of practice. This rings true for Ruby, who felt valued by the community of practice of PDHPE teachers, but struggled with her peripheral community identity at HSC marking.

Unlike Jasmine, Ruby and Zach, Patrick was a newcomer to the community of practice, and gaining central participation was the motivation for learning. Patrick initially assumed the identity of a legitimate peripheral participant in the community of practice of PDHPE HSC markers. Periphery experiences refer to *edge* practices (Wenger, 1998). As a beginning teacher with a Masters degree, Patrick was invited by the Supervisor of Marking to fully engage with the legitimate practice of marking the HSC. It was in this role that Patrick was privy to the shared history, dialogue, rituals and rules of the community of practice. However, as a marker of an option with a human movement sciences perspective, Patrick’s experiences merely served to reinforce the continuity of what he perceived to be the community’s practice (selecting those options with the human movement sciences perspective). His engagements were with like-minded individuals who advocated for options such as *Sports Medicine* and *Improving Performance*. For Patrick, these HSC marking experiences did not expose him to the breadth of discourses being mobilized within the community of practice. His membership in the “community of practice translated into an identity as a form of competence” (Wenger, 1998, p. 153). In this case the competence, and identity alignment was with the human movement sciences perspective.

Demonstrating knowledge of the practice sanctions the newcomers’ cultural identity within the community of practice. Therefore, as Patrick constructed his identity in the community of practice he sought to replicate the dominant discourses relating to the human movement sciences perspective. As a newcomer he was seeking continuity rather than discontinuity of practice. In order to gain membership in the community he must be recognised as contributing legitimate participation, therefore he must recognise the shared history of the community’s practice and find ways to contribute that provide an investment in their identity formation. Patrick initially reproduced or replicated the existing practices of the community, by selecting *Sports Medicine* and *Improving Performance* as HSC options for his students to study.



Newcomers may become either clones or heretics of their masters and their practice. However, even when “submissive imitation” (Lave & Wenger, 1991, p. 116) is the outcome of the master-apprentice relationship, learning is not merely a matter of transmission. Newcomers develop an identity in relation to their practice and the community. Patrick viewed his current position in the community of practice, as legitimate but peripheral. As a beginning teacher and inexperienced HSC marker, Patrick recognised the need to draw on the history of the community of practice, by networking with old-timers, however, these opportunities only served to reinforce Patrick’s alignment with the options with the human movement sciences perspective. His selection of members with whom to engage in dialogue was largely driven by his allocation to mark an HSC option that reflected his strengths of knowledge in the area of *Sports Medicine* and *Improving Performance*.

Wenger (1998) explains that newcomers need to have multiple opportunities to observe and engage in transparent experiences of the community’s practice. To be accepted as a full participant in a community of practice, the newcomer must have “access to a wide range of on-going activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation” (Lave & Wenger, 1991, p. 101). Participation in the practices of the community was, for Patrick, an investment in learning and in the formation and sustainability of a legitimate identity.

As a newcomer, Patrick expressed his desire to become comfortable with the syllabus by networking with other PDHPE HSC teachers and academics in his local area as well as refer to textbooks for confirmation of his understanding of the syllabus content. Adler (1998) points out newcomers to a community of practice need to employ the resources of the community, as well as participating in its social relations. These resources, in all their forms, exemplify the inner workings of the community; they are tied to its history and the development of its practice and assist the newcomer to make sense of the learning curriculum. After participating in the professional development experiences offered by his educational system, Patrick recognised the worth of boundary encounters, if only for the purpose of reassuring him that he was interpreting and implementing the syllabus correctly.

Patrick explained how he had been selected to teach the 1999 Stage 6 syllabus in his school, as the other members of staff were “older and didn’t feel comfortable with it”. This invitation to participate in the community of practice of HSC PDHPE teachers provided Patrick with a sense of legitimacy, however, he was left to his own devices by his Head Teacher to fashion his own version of participation in the community of

practice. Wenger (1998) explains that learning is not considered as an individual endeavour undertaken in an isolated context, rather it is grounded in our everyday activities and cannot be separated from the multifaceted environments in which knowledge must be applied. In Patrick's case, with little else to engage with, he drew upon the learning he had experienced at university, and brought to the community his own viewpoints of how domain knowledge should be employed. Ongoing and purposeful reflection with others provides opportunities for members of a community of practice to examine the interrelationship between their knowledge and experience. As Patrick replaced the "old-timers" who were teaching the 1994 Stage 6 syllabus at his school, he was creating a stake in the development of the practice and his emerging identity in its future. Patrick's trajectory could be viewed as inbound, as he set goals to move toward full participation in the practices of the PDHPE community of HSC markers.

As a member of the community of practice of PDHPE HSC markers, Zach positioned himself as a full and centripetal participant. He viewed his experiences as a Senior HSC marker as pivotal to furthering his depth of understanding of those options with a human movement sciences perspective. Like the other interviewees, Zach drew on his undergraduate tertiary preparation to assist him to select and teach HSC options for his students to study. His preferences for Biomechanics and Anatomy from the 1994 syllabus reflected his engagement with the dominant discourses associated with a scientific view of health and physical activity. Zach expressed his resistance to shift his perspective, claiming that selecting other options would disadvantage his students in regard to their HSC results, and had lack of relevance to their lives. As an old-timer in the community of practice, Zach was experiencing feelings associated with the discontinuity of practice (Lave & Wenger, 1991). As a result of his investment of time, years of teaching experience and invitation by the NSW BOS to be a member of the syllabus review committee, Zach had, as Wenger would suggest, "a stake in continuity – at the level of the institution, and at the level of the community of practice as well" (Wenger, 1998, p. 94).

In terms of community participation, Zach felt connected to the practices of the past; he valued the shared repertoire of community, and expressed his resistance to the resultant syllabus changes. His relationship with the female member of his faculty who engaged with the socio-cultural perspective of the 1999 syllabus reflected issues of conflict and power. Wenger (1998) explains that participation in communities can involve many kinds of relationships: ones that are harmonious as well as those that are competitive, conflictual, cooperative and political. The shared practice therefore

connects members of a community of practice in mixtures of relationships that involve:

power, dependence, pleasure and pain, expertise and helplessness, success and failure, amassment and deprivation, alliance and competition, ease and struggle, authority and collegiality, resistance and compliance, anger and tenderness, attraction and repugnance, fun and boredom, trust and suspicion, friendship and hatred. Communities of practice have it all. (Wenger, 1998, p. 77)

With the discursive shift in syllabus perspective, in order to sustain his centripetal position in the community of practice of PDHPE HSC markers, Zach built elements of stability into his repertoire. Zach called on his male colleague to substantiate his position of power in the decision making processes of the faculty. In his own school, and in the community of practice of PDHPE HSC markers, Zach was pulling into play practices that ensured the “maintenance of the community’s practice” (Wenger, 1998, p. 74). Newcomers to HSC marking, such as Patrick assisted Zach to maintain his professional identity. Both viewed the options with a human movement sciences perspective as “high status knowledge” (Goodson, 1988, p. 9). Pursuing these options provided kudos for Zach with his students whose academic ability was aligned with the well-respected sciences such as Physics and Chemistry. Zach positioned his subject as one that could gain from the both the school’s and the NSW BOS micro-political resources. By investing in teaching options with a science base, Zach believed that he was rewarded in terms of the type of students who selected PDHPE as a Stage 6 subject, by the marks they gained in their HSC examination, and by the respect that he gained from colleagues in other faculties within his school, and at HSC marking. To make the shift to a socio-cultural perspective, would position Zach in a less legitimate and peripheral space in the community of practice of PDHPE HSC markers and within his own school. As Harris (2003, p.54) states, “if you control what is defined as knowledge, you therefore control who is defined as knowledgeable”.

Zach had a significant investment in how the syllabus was viewed, what constituted the legitimate version of the curriculum, and employed maintenance strategies to ensure the continuity of both his investments and his identity in the community of practice.

Zach could be considered as having an *insider* trajectory. Insider trajectories shape the identity of old-timers within a community of practice. As new knowledge, new insights, new conditions arise, the participant must work on renegotiating their identity. Even cynical veterans must reshape their identity in response to initiatives in practice,

research findings, professional development activities and new responses to practice. Despite his resistance to the syllabus changes, Zach was aware of the need to engage with the socio-cultural perspective at a certain level, in order to position his students favourably for responding to the PDHPE HSC examination core questions. Thus for Zach, the meeting of discontinuity and continuity was essentially an encounter of the past and future.

## **Summary**

Chapter Six has profiled four members of the community of practice of PDHPE HSC markers to identify their understandings of a socio-cultural perspective of health and physical activity, explain the factors that influence their engagements with the Stage 6 PDHPE syllabus, and investigate what is required to assist them to engage with a socio-cultural perspective. Participating in overlapping communities of practice that provided opportunities for learning about a socio-cultural perspective were effective means of engaging with the syllabus changes. Members of the community of practice of PDHPE HSC markers who had acted as consultants, textbook writers or were involved in networks and professional development design expressed their increased competence and confidence in implementing a socio-cultural perspective of health and physical activity in their classrooms. These members benefited the community of practice of PDHPE HSC markers and Stage 6 PDHPE teachers as they acted as translators of practice.

Therefore, opportunities for engagement with a wide variety of centripetal members of the community of practice of PDHPE HSC markers and participation in diverse professional development activities with members of overlapping communities of practice, would assist Stage 6 PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus.

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## Chapter Seven

# Legitimate Peripheral Participants in the Community of Practice: Reproducing or Transforming the Professional Identity?

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This chapter will examine the professional identity of a sample of pre-service PDHPE teachers and investigate their preferred engagements with the 1999 Stage 6 PDHPE syllabus. Comparing the data gained from surveying these pre-service teachers, to the HSC markers' survey data, provides the opportunity to examine whether they are reproducing or transforming the professional identity of members of the broader PDHPE community of practice. As legitimate peripheral participants in this community, how these pre-service teachers learn about the socio-cultural perspective of health and physical activity as represented in the 1999 Stage 6 PDHPE syllabus will be explored. The data for this chapter were derived from examining a range of NSW BOS artefacts and surveying PDHPE pre-service teachers at three NSW tertiary institutions using a self-administered questionnaire. The findings of the survey assisted to answer the research questions:

3. What factors influence PDHPE pre-service teachers' syllabus selections?
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

### **The Legitimate Peripheral Participants**

As described in Chapter Four, 120 questionnaires from a possible 152 were completed by pre-service PDHPE teachers. This represented a return rate of 78.9 per cent. Of the 120 respondents, 56 were male (46.7%) and 64 were female (53.3%). Participants were from three of the NSW tertiary institutions that prepared pre-service teachers to teach the Key Learning Area (KLA).

In NSW, tertiary preparation courses for PDHPE pre-service teachers operate using either a three plus one model (Bachelor of Arts/Health Science/Human Movement and a Graduate Diploma in Education) or a four year integrated program (Bachelor of Education PE and Health). In this sample, 89 respondents (74.8%) were studying a three plus one degree, while 31 (25.2%) were completing a Bachelor of Education (Physical and Health Education) in 2001.

As a further data source, the World Wide Web was accessed to investigate the NSW tertiary institutions' course structure for those students wishing to undertake study in PDHPE teaching. While several tertiary institutions still offer four year Bachelor of Education courses, the ever-increasing trend appears to be to end-on degrees or double degrees (Bachelor of Human Movement/Bachelor of Teaching). This pattern of study has implications for the nature of subjects offered to pre-service PDHPE teachers. Upon examination of the structure of each of the NSW PDHPE tertiary preparation courses, it was apparent that there was a dominance of subjects focused on the human movement sciences. Few subjects specifically covered the socio-cultural perspective of health and physical activity. In the majority of tertiary preparation courses, subjects with a socio-cultural perspective appeared only once per year in a four year course; equating to approximately 12.5% of the total course. As outlined in Chapter Two, tertiary preparation courses attempt to equip pre-service teachers with requisite knowledge and values to implement a Stage 6 syllabus that embraces a socio-cultural perspective. Currently, the percentage of time attributed to subjects with this perspective appears minimal in NSW PDHPE tertiary preparation courses. Therefore the pre-service teachers currently enrolled in these tertiary preparation courses do not appear to be gaining a sound knowledge of a socio-cultural perspective.

### **Preferred Engagements with the 1999 Syllabus**

To identify the discourse clusters operating amongst the legitimate peripheral participants, the pre-service teachers were asked to indicate their preference for options. This data provided data to answer the research question "What factors influence the syllabus selections of the legitimate peripheral participants?"

Survey respondents were required to rank the 1999 Stage 6 syllabus HSC options from one to five with one being the HSC option they would *most* prefer to teach and five being the *least* preferred option. Table 7.1 represents the HSC option identified as first preference by the research sample.

Table 7.1. First preference option

HSC Options	Frequency	Percent
The Health of Young People	24	20.0
Sport and Physical Activity in Australian Society	25	20.8
Equity and Health	2	1.7
Sports Medicine	44	36.7
Improving Performance	25	20.8
Total	120	100.0

Key:

**Yellow** - HSC options with a socio-cultural perspective

**Blue** - HSC options with a human movement sciences perspective

It is important to note here that all participants in the research sample had been exposed to the 1999 Stage 6 PDHPE syllabus in the semester during which this survey was administered. As the casual lecturer of the curriculum studies subject in each of the three sample institutions, students were presented with similar exposure to the nature and implementation possibilities of the 1999 Stage 6 syllabus. However, for the majority of their degree, Bachelor of Education students had been drawing on syllabus knowledge from the 1994 syllabus.

It was clearly evident from the data that *Sports Medicine* was the most preferred PDHPE HSC option. Two of the options with a socio-cultural perspective were well represented with 20.8 per cent and 20.0 per cent of respondents respectively selecting *Sport and Physical Activity in Australian Society* and *The Health of Young People* as their first preference option. Pre-service teachers selected options with a socio-cultural perspective as their first preference option in 42.5 per cent of cases. In contrast, the PDHPE HSC markers selected those options with a socio-cultural perspective as their first preference option only in 26.2 per cent of cases.

Through a range of professional experiences, the legitimate peripheral participants, in this case, the pre-service PDHPE teachers have undergone a process of *occupational socialisation* (Hutchins & Macdonald, 1993). This socialisation has contributed toward pre-service teachers developing preferences for particular areas of study. These preferences have formed as pre-service teachers have internalised the dominant rules, values and meanings endorsed by their profession. Having been socialised in this way, this implies that the preferences pre-service teachers have for options will be influenced by these values and meanings. The choices of the legitimate peripheral

participants tell us that they are reproducing the patterns of preference of the HSC markers, although in different percentages.

With the introduction of the 1999 revised syllabus, students were required to select two options for study in the HSC. Table 7.2 details pre-service teachers' second preference option.

*Table 7.2. Second preference option*

HSC Options	Frequency	Percent
The Health of Young People	23	19.2
Sport and Physical Activity In Australian Society	26	21.7
Equity and Health	4	3.3
Sports Medicine	35	29.2
Improving Performance	32	26.7
Total	120	100.0

Key:

**Yellow** - HSC options with a socio-cultural perspective

**Blue** - HSC options with a human movement sciences perspective

It was obvious from the survey data that again two disparate discourses were being mobilised. However, in comparison to the PDHPE HSC markers, 44.2 per cent of the legitimate peripheral participants preferring a socio-cultural perspective and 55.9 per cent preferring a human movement sciences perspective.

Lave and Wenger (1991) would suggest that as legitimate peripheral participants in the community of practice, newcomers forge their identities, and in order to gain membership they must be recognised as contributing legitimate participation. Therefore they must recognise the shared history of the community's practice and find ways to contribute that provide an investment in their identity formation. As a result, newcomers initially reproduce or replicate the existing practices of the community, seeking continuity rather than discontinuity. Tinning et al. (2001) suggest that pre-service PDHPE teachers "feel comfortable with approaches to physical education with which they are familiar, and usually want to reproduce, as teachers, the kinds of experiences they had as pupils" (p. 85).

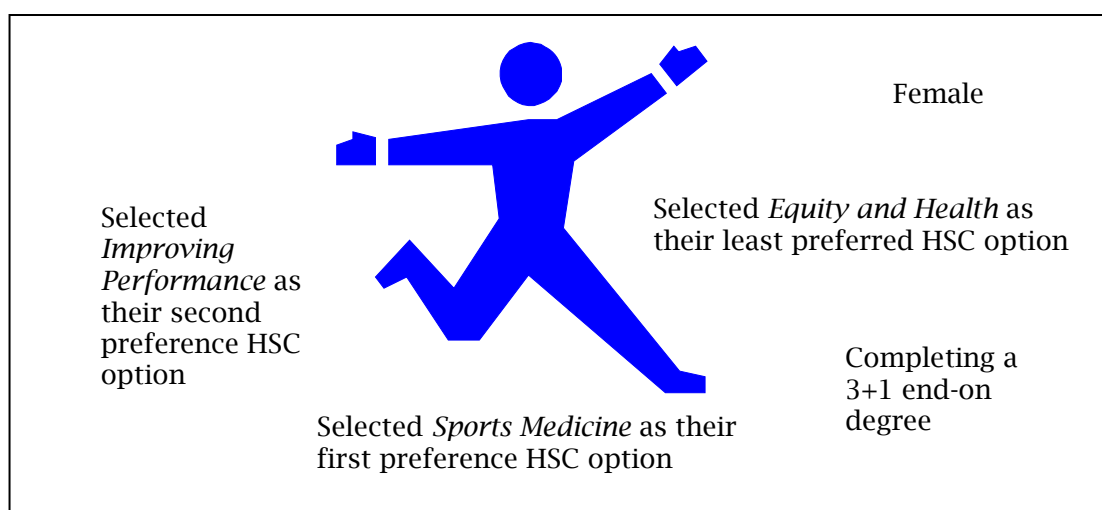
However, the results of the data suggest that a percentage of the legitimate peripheral participants (pre-service PDHPE teachers) are seeking to contribute to the community by learning the new language of the 1999 syllabus and selecting those options with a



socio-cultural perspective of health and physical activity. This could be regarded by some old-timers as conflicting with the continuity of the historical practice and challenging the investments that PDHPE HSC markers had contributed over the years. In this instance, the PDHPE HSC markers have significant investments in the rituals of their practice. Their professional identity has historically been shaped around those discourses of the human movement sciences and the introduction of the 1999 syllabus has challenged this identity. *Equity and Health* remained the least preferred option. The other two options with a socio-cultural perspective were well represented as second preference options. 44.2 per cent of participants selected the three options with a socio-cultural perspective as their second preference. In comparison to the PDHPE HSC markers, the pre-service teachers were represented in greater percentages in the frequency of second preference options with a socio-cultural perspective.

### Representative Professional Identity of the Sample of Legitimate Peripheral Participants

The data sets resulting from the pre-service PDHPE teacher survey provided evidence to construct the identity representative of the sample of pre-service PDHPE teachers. Figure 7.1 is a representation of this identity.



*Figure 7.1.* The representative professional identity of pre-service PDHPE teachers in the research sample

The identity of the pre-service PDHPE teachers in the research sample suggests that the majority of participants were already closely affiliated with the community of PDHPE HSC markers, as reflected by their option preferences.

Lortie (1975) would suggest that these pre-service PDHPE teachers had already become immersed in the shared rituals, practices and values of their profession. The period

known as *anticipatory socialisation* (Western & Anderson, 1968), when pre-service teachers engage with practitioners during their own schooling and in completing professional practicum experiences, constructs a picture of what is valued, privileged, encouraged and expected. In this case, that knowledge that aligns with a human movement sciences perspective.

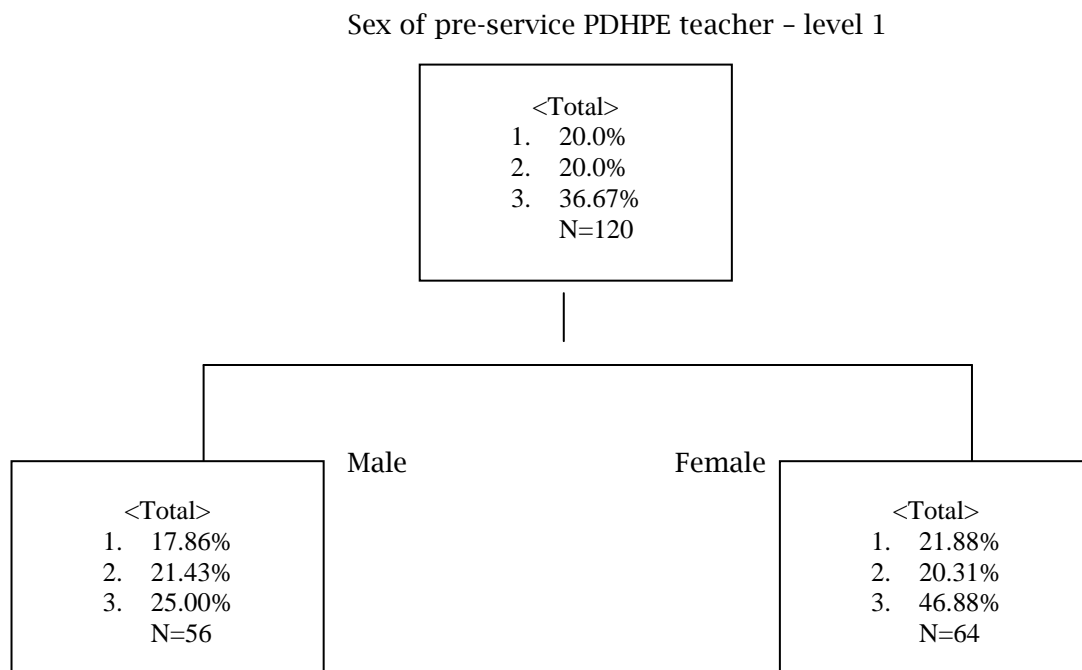
According to Templin, Woodford and Mulling (1982), few Physical Education recruits have the desire to transform the dominant curriculum model in practice. Ennis (1994) and Sparkes, Templin and Schempp (1990) further support this notion that in general, Physical Educators are quite conservative and the underlying reasons for this can be traced to their occupational socialisation. Physical Educators are attracted to and socialised by two traditionally conservative social institutions: school and sport. The most significant influencing factor in pursuing a career in teaching Physical Education is the pre-service teachers' personal interest in, positive experiences of, and success in physical activity and sport (see Armour & Jones, 1998; Dewar, 1989; Hutchinson, 1993; Lawson, 1988; Macdonald & Tinning, 1995). As a result, their "abilities and practices are geared toward reproducing the dominant curricular orientations" (Sparkes, 1990, p.162). Thus, life in schools for the pre-service teacher becomes merely a replication of those power relationships and professional practices already in existence. If the pre-service teacher were to consider an effort to manipulate the favoured viewpoint, they would need to assess the ratio of investment to return for themselves, in relation to their own ideological stance. In such an instance, forms of overt and covert conflict would be expected (Sparkes, et al., 1990).

### **Influence of Professional Identity on Option Preference**

Glover and Macdonald (1997) state that the integration of Health and Physical Education and the inclusion of a socio-cultural perspective has "profound implications in particular for the teachers who previously had defined themselves as physical education (PE) teachers" (p. 242). As the professional identity of pre-service PDHPE teachers may have influenced their preference for particular options, it was important to explore the possibility of relationships between the independent variables of sex and nature of tertiary preparation and the HSC options most preferred. Each of the independent variables from the survey of the pre-service PDHPE teachers was cross tabulated with the pre-service teachers' first preference option and a chi square test ( $p < .05$ ) was conducted.

### ***Sex of Pre-service PDHPE Teacher***

A two-way contingency table analysis was conducted to determine whether the sex of the pre-service PDHPE teacher influenced their choice of first preference option. The two variables were sex of the pre-service PDHPE teacher with two levels (male and female) and first preference option with five levels (*The Health of Young People, Sport and Physical Activity in Australian Society, Sports Medicine, Improving Performance, Equity and Health*). The sex of the pre-service PDHPE teacher and first preference option were found to be significantly related (Pearson's  $X^2$  (4,  $N = 120$ ) = 17.067,  $p < .002$ , Cramer's  $V = .377$ ). The data indicated that there were significant differences between males and females and their first preference options. Female students were more likely to choose their first preference option as *Sports Medicine*. The first preference option was further investigated by examining the cross tabulation using CHAID. As outlined in Chapter Four, the best predictor of the first preference option was calculated by the independent variable (e.g. sex of pre-service PDHPE teacher, tertiary institution attended, nature of tertiary preparation) that split the dependent variable (first preference option) at the most significant level. The results were displayed as a tree diagram. Of the possible interactions between the dependent and independent variables only one significant predictor variable was identified by CHAID. This predictor variable managed to split the first preference option into subgroups relating to the sex of the pre-service PDHPE teacher. Figure 7.2 represents the tree diagram demonstrating the best predictor variable of first preference option.



**Figure 7.2.** Best predictor variable of first preference option – sex of pre-service PDHPE teacher

Figure 7.2 indicates that the best predictor for first preference option (dependent variable) was the sex of the pre-service PDHPE teacher. By referring to the cross tabulation of these two variables (Table 7.3) it was evident that, as their first preference option, male students preferred *Improving Performance* in greater percentages (35.7%) than their female colleagues (7.8%) Female students chose *Sports Medicine* as their first preference option in 46.9 per cent of cases.

Table 7.3. Cross Tabulation - Sex of pre-service PDHPE teacher and first preference option

Gender Option 1 Cross-tabulation							
		Option 1					
			Health of Young People	Sport & Physical Activity	Sports Medicine	Improving Performance	Equity & Health
Gender	Male	Count	10	12	14	20	0
		Expected Count	11.2	11.7	20.5	11.7	0.9
		% within gender	17.9%	21.4%	25.0%	36.7%	0%
	Female	Count	14	13	30	5	2
		Expected Count	12.8	13.3	23.5	13.3	1.1
		% within gender	21.9%	20.3%	46.9%	7.8%	3.1%
Total		Count	24	25	44	25	2
		Expected Count	24.0	25.0	44.0	25.0	2.0
		% within gender	20.0%	20.8%	36.7%	20.8%	1.7%

As evidenced by Table 7.3 minimal numbers of female pre-service teachers nominated *Improving Performance* as their first preference option. The content of this option has considerable alignment with the scientific discourses of human movement, concentrating on the application of knowledge to laboratory workshops, and elite athletic performance. This option reflects the traditional masculine discourses in PE associated with para-militarism and scientific rationalism with its emphasis on the technology of fitness, skill acquisition and scientific measurement (Wright, 1996). Including “the more powerful professional discourses ... derived from the sciences and in particular medicine, physiology, physics and psychology” (Wright, 1996, p. 335) assisted in legitimising PDHPE as an academic subject, to appeal to the high achieving students in secondary schools (who prefer the privileged science-based subjects) and challenging the micro-political forces within schools that impact on subject prestige, resourcing and career trajectory for its teachers (Sparkes, et al., 1990). Therefore, HSC markers and legitimate peripheral participants are choosing the options that privilege

this scientific knowledge in order to gain this micro-political power. *Sports Medicine* was clearly the most preferred option by females as represented by the significant percentage (46.9%). Its content knowledge could be seen to align with the academic strand of medicine, however, the depth of working knowledge required and the type of HSC examination question posed provides opportunities for a wide range of students to study this HSC option. As supported by PDHPE HSC markers' comments in Chapter Six, *Sports Medicine* was viewed as a soft or easy option, whereas *Improving Performance* (albeit the 1994 syllabus equivalent Biomechanics of Human Movement) was viewed as only suitable for those high achieving boys with a predictable excellent University Admission Index or those from selective high schools.

### ***Tertiary Institution Attended***

A two-way contingency table analysis was conducted to determine whether the tertiary institution attended by the pre-service PDHPE teacher influenced their choice of second preference option. The two variables were tertiary institution attended by the pre-service PDHPE teacher with three levels (University of Western Sydney, University of Wollongong and University of Technology, Sydney) and second preference option with five levels (*The Health of Young People*, *Sport and Physical Activity in Australian Society*, *Sports Medicine*, *Improving Performance*, *Equity and Health*). The chi square test revealed that the tertiary institution attended by the pre-service PDHPE teacher and second preference option were not found to be significantly related (Pearson's  $X^2$  (4, N = 120) = 5.413,  $p < .25$ , Cramer's V = .21). From these findings we could assume that whether pre-service teachers undertook a four year integrated course such as a Bachelor of Education or an undergraduate degree and a one year education degree (known as an end on degree) such as a Bachelor of Human Movement/Graduate Diploma of Education, did not influence their preference for a particular HSC option discourse cluster. However, there were notable trends revealed in the cross tabulation output. Regardless of course structure, *Sports Medicine* was the first preference option nominated by the pre-service PDHPE teachers with similar percentages for both the end on degree (37.1%) and four year integrated degree (35.5%). *The Health of Young People* was also nominated as first preference by those in the four year integrated degree (35.5%). Those pre-service PDHPE teachers undertaking the end on degree nominated *Sport and Physical Activity in Australian Society* (23.6%) as their second preference option. These data revealed that while pre-service teachers prefer Sports Medicine, their next or equal preference is for an HSC option with a socio-cultural perspective (*The Health of Young People* and *Sport and Physical Activity in Australian Society*). On further investigation of the four year integrated course (Internet, September, 2002), it was evident that this preference for *The Health of Young People*

option had transpired as a result of the number and nature of subjects that were focused on young people and their health issues and needs in this degree.

In regard to tertiary preparation, the data implied that pre-service PDHPE teachers were not sufficiently prepared to teach the socio-cultural perspective of the Stage 6 PDHPE syllabus. However, in tertiary courses where there were subjects focused on the nature of young people's lives and their associated health issues, it appeared that pre-service teachers were more likely to prefer the HSC option *The Health of Young People*. We could conclude from this, that if pre-service teachers were provided with sufficient knowledge and skills in a particular area that they were more likely to engage with that content. The nature of the pre-service teachers' tertiary preparation was identified as an influencing factor on selection of PDHPE HSC option as identified in the responses to the open-ended questions in the survey.

### **Engaging with the Socio-cultural Perspective of Health and Physical Activity**

It was evident from the identity presented in Figure 7.1 that pre-service PDHPE teachers were predominantly mobilising the discourses related to the human movement sciences and therefore reproducing the hegemonic professional identity of the community. Tinning et al. (2001) suggest that these discourses are "now at odds with contemporary school syllabuses and have been criticised by those with an interest in equity" (p. 85). However, a percentage of legitimate peripheral participants (42.5% for first preference and 44.2% for second preference) were daring to invest in the socio-cultural perspective and could be viewed by centripetal members as having a *peripheral trajectory* in the community of practice (Lave & Wenger, 1991). These findings support the investigation of the study's final research question "What is required to assist the PDHPE community of practice to engage with and enact the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?" The HSC option Equity and Health most openly represents the contemporary commitment to viewing health as a social construct. However, it was also the least preferred option by both PDHPE HSC markers and pre-service PDHPE teachers in the research sample. Table 7.4 presents Equity and Health's position as an option preference for pre-service PDHPE teachers.

Table 7.4. Fifth preference option

HSC Options	Frequency	Percent
The Health of Young People	3	2.5
Sport and Physical Activity in Australian society	3	2.5
Equity and Health	95	79.2
Sports Medicine	11	9.2
Improving Performance	8	6.7
Total	120	100.0

Key:

**Yellow** - HSC options with a socio-cultural perspective

**Blue** - HSC options with a human movement sciences perspective

The trend for selecting *Equity and Health* as fifth preference (79.2%) from the 1999 Stage 6 PDHPE syllabus was mirrored by PDHPE HSC markers who chose its equivalent *Community Health Issues* from the 1994 Stage 6 PDHPE syllabus, as last preference in 41.7 per cent of cases.

Pre-service teachers commented on the reasons why they least preferred *Equity and Health* as a PDHPE HSC option for study. Examples of these reasons include statements such as:

Equity and health - I would find it to be of minimal interest for students and quite dry to teach.

I would like to teach topics that are interesting to students. Equity and health and health of young people are a little boring.

Equity and Health includes too much discrimination content – racism, Aboriginal stuff and it's pretty sensitive to teach. I teach in a school with a high Aboriginal population of kids so I don't want to mess with that stuff!

I didn't do any subjects on Aboriginal health and sociology during this degree and I think I'd find it hard to teach. I don't know if I could make the content interesting for the students.

These comments indicated that lack of interest and knowledge, sensitivity of the content, difficulty in preparing engaging lessons and insufficient tertiary preparation influenced pre-service PDHPE teachers' preference for the *Equity and Health* option. Glover and Macdonald (1997) suggest that pre-service teachers in the Health and

Physical Education Key Learning Area resist the integration of the previous separate areas of Health and Physical Education, and that this resistance was attributed to their lack of understanding of the syllabus content, particularly a socio-cultural perspective of health and physical activity. This situation has important implications for the structure and nature of tertiary preparation courses and their recruitment procedures. Glover and Macdonald (1997) further state that:

Tertiary programs need to consider the increasing demands being placed on teachers with respect to broader health and social concerns of young people such as drug use, harmful drinking, child abuse, youth suicide and traffic safety to name just a few, but require a multi-disciplinary input. (p. 24)

The data suggest that the tertiary preparation needs not only to include content relating to a socio-cultural perspective of health and physical activity but also model a range of pedagogies to interest and engage students to learn about these concepts.

### ***Factors Influencing the Selection of PDHPE HSC Options***

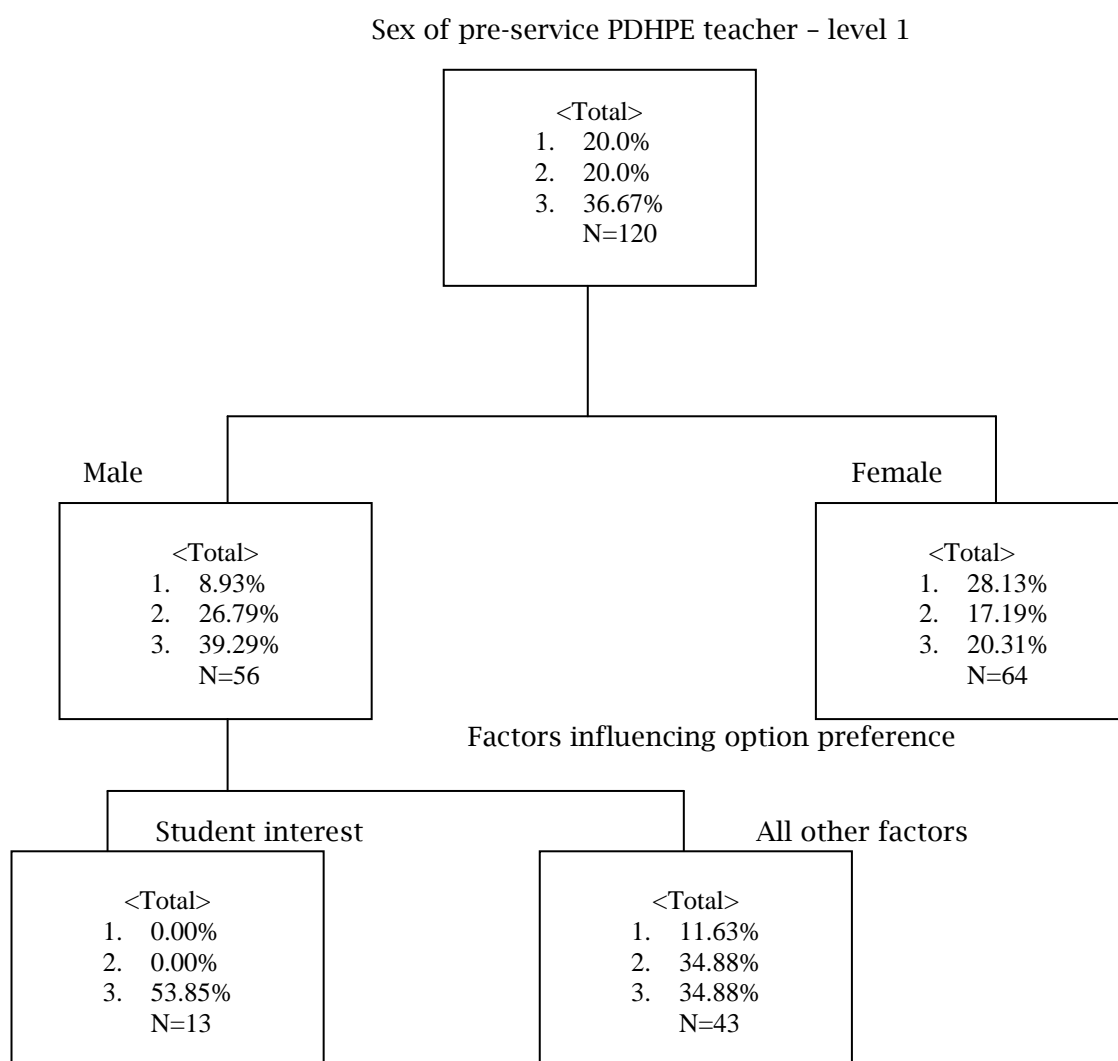
In the survey, PDHPE pre-service teachers were requested to rank from one to three the factors that influenced their selection of options to teach their future HSC classes. Table 7.5 represents the factors influencing PDHPE pre-service teachers' option selections. Student interest, teacher expertise, and teacher interest, were the most commonly nominated influencing factors. These data consolidate the findings from the PDHPE HSC marker survey, however, pre-service teachers identified student interest as their primary influencing factor (41.7%) while PDHPE HSC markers nominated teacher expertise (54.4%) as their primary influencing factor in choosing PDHPE HSC options.

*Table 7.5. Influencing factor 1*

<b>Influencing Factors</b>	<b>Frequency</b>	<b>Percent</b>
Student interest	50	41.7
Teacher expertise	25	20.8
Teacher interest	10	8.3
Core links	8	6.7
Resources	7	5.8
Practical	6	5.9
Career	4	3.3
Student ability	3	2.5
Other	2	1.7
Exam question	1	0.8
Textbooks	1	0.8
Existing programs	1	0.8
Year 7-10 syllabus links	1	0.8
<b>Total</b>	<b>120</b>	<b>100.0</b>



A CHAID analysis indicated that the best predictor for the second preference option was sex of the pre-service PDHPE teacher. At the second level of the tree diagram, these results showed that there was a significantly different pattern of second preference option choice made by males in comparison to females in the sample. At the third level of analysis of the tree diagram, pre-service PDHPE teachers' perceptions of the factors that influenced their preference for HSC options was the best predictor that segmented these subgroups. While the pre-service teachers were not currently teaching, it was evident from the data that a factor that influenced male pre-service teachers was their assumptions about their prospective students' interest in the options. Male pre-service teachers who considered their students' interest in selecting HSC options were more likely to select those options with a socio-cultural perspective.



*Figure 7.3.* Best predictor variable of second preference option – sex of pre-service PDHPE teacher and factors influencing option preference

The PDHPE pre-service teacher survey included an open response question that required respondents to “explain why you chose each of the PDHPE HSC options in the order you did”. This question was included in the survey in an effort to explore the factors that influenced option selections and whether these factors supported the formation of discourse clusters of PDHPE pre-service teachers. PDHPE pre-service teachers’ responses to this question were categorised according to several themes:

1. Student interest;
2. Teacher expertise and interest;
3. Practical nature of the options;
4. Pedagogy; and
5. Application beyond school.

The PDHPE HSC markers confirmed several of these themes in their survey responses (see Chapter Five).

#### *Student Interest*

Given that pre-service PDHPE teachers have been socialised into an occupational cultural community that prizes, values and privileges those discourses associated with rationality and scientific knowledge, it could be concluded that they assume that their students are interested in and motivated by similar discourses. Pre-service PDHPE teachers provided reasons that influenced their preferences for each of the options. Pre-service PDHPE teachers stated:

I’m interested in improving my performance so I know the students would want to study this option too.

I prefer practical hands-on topics and my kids would too. So I picked sports medicine and improving performance.

I think Equity and Health is the least preferred option because of its perceived lack of relevance and interest to adolescent students. I don’t like the issues in that option and I don’t think my students would either. Most of them are here because, like me they love sport and being healthy.

I believe that Equity and Health has a lack of relevance for adolescent students.

At this stage of their lives adolescents may not be interested in learning about these social issues that relate to community health, it’s not about their own

health. Teachers stray away from E and H because they worry about HOW they teach it and try to keep their students interested. I wouldn't like to learn about that if I was a student. I wanted to be a PE teacher who could get on with my students especially the seniors and I don't think that teaching stuff that is controversial like poverty would help to make good relationships. I think that doing fun stuff with them like pracs in improving performance would help to bond with them.

These responses indicated that pre-service teachers are making assumptions about their students' interests based on their own interests and professional identity. If pre-service PDHPE teachers define themselves as physical education teachers then it becomes problematic teaching those aspects of a syllabus that advocate a socio-cultural perspective of health and physical activity. Further this introduces questions as to what content and pedagogy should constitute pre-service PDHPE teachers' tertiary preparation and support for posing the final research question "what is required to assist the PDHPE community of practice to engage with and enact the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?"

#### *Practical Nature of the Options*

As identified in the responses from PDHPE HSC markers (see Chapter Five), the opportunity for students and teachers to participate in practical experiences was a major factor influencing option preferences. The data from the sample of pre-service PDHPE teachers supported the importance of hands-on and practical lessons. Examples of participants' responses included:

I chose Sports Med and IP because we can do practical.

Practical opportunities are available for teaching these options (Improving Performance and Sports Medicine).

I have no resources or ideas to teach the socio stuff. I can do practical with this option.

The main reasons students select PDHPE is to do practical, so these options are perfect as you can teach them using prac.

Most students electing to study the PDHPE course are sport minded and looking at ways to understand and improve performances would be beneficial because it's practical.

### *Teacher Expertise and Interest*

Pre-service teachers in the sample highlighted the significance of their tertiary preparation in influencing their PDHPE HSC option choices. It was clearly evident from the responses provided to the open ended question in the survey, that pre-service teachers whose tertiary degree was constituted by a large percentage of science-based subjects voiced their intentions to offer their future students *Sports Medicine* and *Improving Performance* as options for HSC study. Examples of participants' responses include:

I would select Improving Performance because I did a Human Movement degree.

I have a Human Movement degree with Ex Phys and a Biomechanics major. I work in a gym and I am a personal trainer. I feel that I am very confident about these two options (Improving Performance and Sports Medicine).

My undergraduate degree had lots of subjects that have set me up to teach these options.

I have a background in exercise prescription and muscle physiology.

My past experience in science helps me to teach these options.

These options are more scientific – facts and figures not airy fairy.

I chose E and H last because it does not relate to physical activity. This is one of the main reasons the students select PDHPE as a subject to study in Stage 6. Also I don't feel confident instructing this material because we didn't cover this type of subject matter too much in our degree.

These options are REAL subjects – science based and practical opportunities. These options are most similar to my undergraduate degree – Sports Science.

Many PDHPE teachers don't feel confident teaching this material (sociology stuff) because the majority of them didn't cover this type of subject matter in their undergraduate degree. We did a little bit but I don't think enough to make us feel OK about it. When we did do a subject about equity then most of the students thought it was crap anyway because it really isn't "black and

white” if you know what I mean. You can learn the facts in Anatomy but how do you take notes or study for social justice stuff.

The last quote highlighted the lack of sense of “the definite” surrounding subjects and the pre-service PDHPE teachers’ need to feel comfortable with the content and confident in their ability to teach the socio-cultural perspective.

Pre-service teachers’ responses also recognised the fact that the nature of their tertiary preparation assisted in creating their professional identity. An example of this relationship stated that:

This is what we spent 90% of our training on at university therefore it is what we know and what we feel more confident teaching. It is also what we enjoy teaching, it is half the reason we chose physical education to teach because we enjoy being physical, learning about performance and how to improve it. When we went through school it was PE and therefore, I am probably still operating out of this mindset (there was no health or social justice component – thank God).

I am a sports scientist NOT a sociologist! Why do I have to teach this stuff? I love physical activity, that’s who I am. I think that the kids that do PE love doing practical. That’s why they chose the subject in the first place because they are sports people. That’s who they are. They see themselves as the sporty kids and they don’t want to do the equity stuff. They don’t really care about that.

These examples highlight the professional identity of some members of this community of practice of pre-service PDHPE teachers. These participants have constructed their professional selves around specific ways of seeing and instructing the body and have adopted views about the relevance of and necessity for a socio-cultural perspective of health and physical activity. These data have specific implications for the recruitment process of pre-service PDHPE teachers to tertiary preparation courses. Researchers such as Bramich (1998), Dewar (1989), Dewar and Lawson (1984), and Macdonald, Abernethy, and Swan (1995) would argue that tertiary preparation courses for PDHPE teachers “tends to recruit a homogeneous community of students” (Tinning, et al., 2001, p. 80). Macdonald et al. (1998) in a study of human movement students in Queensland, who would predominantly pursue a career as a HPE teacher, were from high socioeconomic backgrounds (51.2%), had attended non government schools (50%) and were from Anglo Saxon origins. Studies undertaken

both internationally and in Australia (see Dewar, 1989; Hutchinson, 1993; Macdonald & Tinning, 1995; Placek et al. 1995) suggest that the attractiveness of teaching physical education as a subject stems from pre-service teachers' affiliation with the physicality of the body and healthy lifestyles, and as such these recruits are attracted "to a particular subject rather than to teaching more generally" (Tinning et al., 2001, p. 82).

Viewing health and physical activity from a socio-cultural perspective appeared to be quite daunting for some pre-service PDHPE teachers in the research sample. The task of presenting sensitive or controversial material posed difficulties in regard to both the nature of the content and the pedagogy required to introduce this perspective. Following are several examples of pre-service PDHPE teachers' impressions of the Equity and Health option.

Equity and Health is not a glamorous option compared to others such as sports medicine and improving performance. It raises issues that very few wish to confront and deal with. Issues such as inequality and topics that would make many adult Australians cringe let alone high school students. Because of its controversial nature many teachers may also be reluctant to take on this option, choosing instead to study a less confronting one.

A large component of my fifth preference option equity and health is related to the study of health issues of disadvantaged groups – ABTSI people and rural and remote. These issues do not concern the majority of our population. The PDHPE cohort is unlikely to choose this option as the issues don't concern them directly. This option deals with difficult and confronting issues that require constructive, well considered, detailed analysis and responses. Perhaps the PDHPE students (and their teachers!) are not prepared to work through these issues. Similarly the current teachers of PDHPE may also feel they may not have the teaching skills and resources to make this option viable for their group of students.

I have the most knowledge and experience in these two areas and would feel most comfortable teaching these options.

I worked for World Vision so this option is highly relevant to me (Equity and Health). I would feel very comfortable teaching this because I think students need to be aware of different population groups in society.

Recruitment of particular types of pre-service teachers impact on the social values reproduced in the PDHPE classroom. As Macdonald, et al. (1998) point out, the

majority of PE and Health pre-service teachers in Queensland reflect the dominant class and their associated social values. As such, it is not surprising that for some of the NSW recruits whose backgrounds are similar, the prospect of teaching about social disadvantage is confronting and uncomfortable. This has implications for the recruitment of prospective PDHPE teachers, and the types of subjects needed in their tertiary preparation. While recruitment of PDHPE pre-service teachers from a variety of socio-cultural backgrounds would appear to assist in the broadening of the “stereotypical” archetype, the question as to how this process can be undertaken remains unanswered in this thesis. In regard to tertiary preparation, however, the content of subjects which constitute a Health and PE degree requires a greater percentage of material from a socio-cultural perspective.

### *Pedagogy*

Establishing a learning environment that was conducive to the teaching of options with a socio-cultural perspective, for example *Equity and Health*, as well as developing suitable teaching and learning strategies was identified by pre-service PDHPE teachers as reasons for option preference. The following quotes represent pre-service PDHPE teachers' perspectives relating to pedagogy and option reference.

I could produce a better lesson if I taught Sports Medicine.

I think that you have to set the right classroom mood to teach Equity and Health. Get the kids prepared for confronting issues and set up boundaries for discussion and being aware of their prejudices. I guess I expect most of my class to be racist or say that they hate Abo's because they're always drunk. I'm not sure whether I have the skills to get them past this mindset because of where we live and that they see this stuff all the time and it's hard to break down the discrimination.

I ranked the HSC options according to my level of knowledge and what I think I could teach best.

I'm interested in them and I think lessons could be formulated for these topics which are interesting, fun and help them to learn.

Teachers don't often feel confident teaching the content of the sociology options or they feel that they will not be able to create interesting lessons based on the content.

If I were a student I would be more interested in learning these topics because I am interested in the practical side of PDHPE and the more interested students are the easier it would be to teach because I could design and teach lessons that were fun and interesting.

I found the health and sociology subjects in my undergraduate degree pretty boring and I believe that this would show in my teaching because I couldn't think of good stuff to do for those topics.

I think the Health of Young People could be taught using fun activities.

These quotes highlighted the need for pre-service PDHPE teachers to be exposed to these perspectives in their tertiary preparation and be equipped with a range of relevant and engaging pedagogies that assist them to engage their students with this sensitive content.

#### *Application Beyond School*

Student interest could be increased as a result of students seeing the significance or relevance of a topic beyond the classroom. Pre-service PDHPE teachers revealed that this real-life application of knowledge and skills influenced their preference for particular options. A selection of pre-service PDHPE teachers indicated that this application of knowledge and skills beyond school significantly influenced their preferences for options.

Improving performance is important to students in the real world.

Applicable for students to take away and use in the future.

Students can develop knowledge that may assist them to gain employment in the fitness industry or TAFE courses or to gain entry to a tertiary degree in human movement.

Students are offered skills that can be used to obtain employment. Sports Medicine accreditations are desirable and in some instances required for areas of employment in the recreation industry.

Several pre-service teachers identified further factors that influenced their preference for HSC options. HSC exam question style was noted as a very important factor in choosing options for *Sports Medicine* and *Improving Performance*.



For example:

This option is not an essay question usually in the HSC exam. This helps students who are not good writers. (*Sports Medicine*)

Links with the Years 7-10 PDHPE syllabus and the core module knowledge from the Stage 6 PDHPE syllabus was also identified as an influencing factor on option preference.

Teachers have the opportunity to reinforce content from Core 1. With this extra detail students can develop heightened knowledge and understanding of social issues.

Students have a good grounding in this stuff from Years 7-10.

I chose Improving Performance and Equity and Health because both of these options expand on the HSC Cores. Therefore students could just expand on their already acquired knowledge. Less time needed to teach in a packed syllabus.

The Equity and Health option builds on the knowledge developed in core module 1 health priorities, so there would be some repetition of course content. This could be seen as either a good thing or a bad thing. Good because students can just apply their core knowledge to the 2 groups in the option – the rural ones and the Aboriginals or it could be bad because the kids would get bored having all that equity stuff shoved down their necks in both the core and the option. It's pretty dry stuff and I think that teaching 2 parts of the syllabus just by using the textbook would be pretty unfair to the kids.

It was clear from the data above that there were a range of views regarding the value of selecting HSC options that aligned with the Core modules. Certainly it was apparent that some pre-service PDHPE teachers had not engaged with the inclusion of a socio-cultural perspective of health and physical activity in the Stage 6 PDHPE syllabus. Comments such as “shoved down their necks”, “pretty dry stuff” and “using the textbook” presented a particular opinion about the relevance of the content and the pedagogy applied to teach the content. In the final quote, the pre-service teacher assumed that both the health core and the *Equity and Health* option could only be taught using a textbook. Statements such as this have significant implications for the

types of teaching and learning strategies that are modelled to pre-service teachers during their practicum experiences and as a component of their tertiary preparation.

### Responding to Syllabus Change

The PDHPE pre-service teacher survey invited respondents to identify the three measures that they would take if they had to teach the HSC option they ranked as fifth preference. The statistical data representing these findings is presented in Table 7.6.

These data assisted in answering the research question:

4. What is required to assist the PDHPE community of practice to engage with and enact the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

*Table 7.6. Measure 1 taken before teaching my fifth preference option*

Measures	Frequency	Percent
Talk with colleagues	34	28.3
Professional produced resources	24	20.0
Resources from colleagues	19	15.8
In-service courses	17	14.2
Professional reading	15	12.5
Strategies from colleagues	9	7.5
Postgraduate study	1	0.8
Other	1	0.8
Total	120	100.0

As evidenced by the data in Table 7.6, talking with colleagues, gathering professionally produced resources such as textbooks and gathering resources from colleagues who had previously taught the option, were identified as the three measures that pre-service PDHPE teachers would undertake if they had to teach the HSC option they nominated as their fifth preference. These data support the formation of a community of practice, as these potential legitimate peripheral participants in the community of practice have clearly and significantly identified informal learning strategies (dialogue with colleagues and resources from colleagues) as measures to learn about the syllabus. Lave and Wenger (1991, p. 101) would suggest that to be accepted as a full participant in a community of practice, the newcomer must have “access to a wide range of on-going activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation”. In this case, the old-timers would be those teachers who act as mentors to pre-service teachers during their practicum experiences, and the newcomers, the pre-service teachers, would need to immerse themselves in the culture of the practice and use the artefacts of the community (colleagues’ resources) to form an insider trajectory into the community of practice.

This access can be problematic depending upon the transparency of the shared repertoire of the community of practice. Issues of understanding and control may present as obstacles to participation for the newcomer. Stories, rituals, rules, and language are artefacts that inadvertently document the enterprise of a community of practice. Learning to engage with and understand these “technologies of everyday practice” (p. 101) can be problematic if sufficient opportunities for access and participation are denied to the newcomer. These technologies are essentially the tools for deciphering not only the practice but the history of the practice and how to participate in the community’s cultural life. Lave and Wenger state that learning is not undertaken by replication or by acquiring knowledge via instruction, but rather learning occurs through centripetal participation in the learning curriculum of the community. Participation in the practices of a community of practice is, for the newcomer, an investment in learning and an investment in the formation and sustainability of a legitimate identity.

The pre-service teachers nominated collecting professionally produced resources as a measure taken before teaching their fifth preference option. Upon release of the 1999 Stage 6 PDHPE syllabus only one textbook was available for use with HSC students. The researcher was one of two academics who authored this textbook. These authors could be considered as *brokers* or translators of the syllabus content. According to Wenger (1998) brokering can be defined as “connections provided by people who can introduce elements of one practice into another” (p. 105). Wenger further explains that brokering is a “complex task that involves the translation, coordination and alignment of perspectives” (p.1998, p. 109).

In preparing the textbook for PDHPE teachers and Stage 6 PDHPE students, the authors were essentially taking this socially-constructed curriculum (Goodson, 1988), in this case the syllabus document, interpreting it based on their knowledge gained from their membership in overlapping communities of practice, and translating it into text and learning experiences with which teachers and students could engage in their classrooms. Throughout the following year, several additional textbooks were released that assisted teachers to engage with the revised 1999 syllabus. The identity of the authors of each of these textbooks was an important factor in negotiating the socio-cultural perspective of health and physical activity. Wenger (1998) points out that brokers need to have “enough legitimacy to influence the development of a practice, mobilize attention and address conflicting interests” (p. 109). In each case, the authors of the respective textbooks were highly respected in the PDHPE community of practice of and perceived by members as knowledgeable, trusted and able to use the boundary

object of the Stage 6 PDHPE syllabus to introduce the new discourses surrounding a socio-cultural perspective of health and physical activity. The syllabus acted as an artefact in the community's history as well as a boundary object around which the brokers could coordinate their enterprises.

## **Discussion**

The following section of this chapter discusses the pre-service PDHPE teachers in the research sample in regard to their recruitment and socialisation processes into tertiary preparation courses, and their role as legitimate peripheral participants in the PDHPE community of practice.

### **Recruitment and Socialisation of Pre-service PDHPE Teachers**

As outlined in Chapter Two, recruitment processes of PDHPE teachers in NSW results in cohorts of Anglo-Saxon, middle class, young, athletic students from relatively high socioeconomic backgrounds gaining entry into PDHPE tertiary preparation courses. This homogeneity or shared culture of pre-service teachers is reflected in their HSC option selections. As evidenced by the data presented in this chapter, these students are challenged by HSC options such as *Equity and Health* which test their expectations of what a PDHPE syllabus should be offering, are in conflict with their personal life experiences, and confront their ability to deliver content that is sensitive and controversial. Tinning, et al. (2001) suggest that “most PETE students enter their programs with expectations that they will be studying biophysical sciences, participating in traditional physical activities, and practicing teaching in ‘real life’ contexts” (p. 283). Therefore, for PDHPE pre-service teachers to select *Sport and Physical Activity in Australian Society*, an option with content that investigates the socio-historical influences on sport would be in opposition to both their expectations and their experiences in the culture of sport. Furthermore, recruitment processes for tertiary preparation courses need to be examined for Health and PE courses. These courses need to be socially and culturally inclusive of students from a range of backgrounds. This exposure to a breadth of community members would assist LPPs to be immersed in the reality of a socio-cultural perspective during their tertiary experiences. Communities of practice emphasise that members create and make meaning from their shared and lived experiences and that learning occurs within the context of social relationships as practitioners mutually engage in their daily enterprise.

As previously stated in Chapter Two, the teaching practicum acts as a significant influence on pre-service teachers' professional socialisation. Pre-service teachers'

responses to the survey indicated that in an effort to learn about a socio-cultural perspective, they were most likely to “talk with colleagues” (28.3%). By placing pre-service teachers for their practicum, with in-service PDHPE teachers who are recognised for their engagement with a socio-cultural perspective, may create conditions that are supportive for learning about those HSC options with a socio-cultural perspective.

Lave and Wenger (1991) would concur with this strategy as legitimate peripheral participants in a community of practice best learn when exposed to the range of activities undertaken by their community. Participation provides members with opportunities to learn the *culture of the practice* of their community. In this case, the practice would be inclusive of both a human movement science and a socio-cultural perspective.

A snapshot of tertiary preparation for HPE and PDHPE teachers in Australia reveals that a range of course structures and inclusions exist. Notably despite the diversity of courses, the biophysical sciences remain privileged over the socio-cultural in the majority of institutions (Macdonald, 2006). However, in contrast to the community of practice of PDHPE markers, a significant percentage of pre-service teachers were indeed selecting those HSC options with a socio-cultural perspective as their first and second preferences. This indicates that there are indeed spaces within pre-service programs to learn about and become engaged with a socio-cultural perspective. The data suggest that exposure to a range of subjects with a socio-cultural perspective, particularly those focusing on the health play a part in shifting pre-service PDHPE teachers' preferences for HSC options. These findings would signal the need for tertiary preparation courses to incorporate subjects in their course that explore young people, health and movement culture (Macdonald, 2006).

Currently the dominance of subjects with a human movement science perspective in tertiary preparation programs, and the nature of recruitment processes, present a challenge for tertiary institutions to design a course and offer teaching practicum experiences that present the spectrum of perspectives presented in the 1999 Stage 6 PDHPE syllabus, and “bridge the gap between students' dispositions and the socially critical perspectives of the KLA” (Macdonald, 2006, p. 28).

### **Legitimate Peripheral Participants**

As newcomers to the community of practice, pre-service PDHPE teachers need sufficient opportunities for access to the syllabus perspectives in order to learn about the culture and the practice of the community. Wenger (1998) explains that newcomers need to have multiple opportunities to observe and engage in transparent experiences

of the community's practice. To be accepted as a full participant in a community of practice, the newcomer must have "access to a wide range of on-going activity, old-timers, and other members of the community; and to information, resources, and opportunities for participation" (Lave & Wenger, 1991, p. 101).

This access could be created in many ways. By structuring mentoring opportunities with old-timers in the community of practice, the potential exists for legitimate peripheral participants (LPPs) to be exposed to the skill and knowledge of the "master" in practice (Lave & Wenger, 1991). These masters in the PDHPE community of practice would be those teachers who were experienced in devising pedagogies to engage students in options with a socio-cultural perspective, as well as having a depth of knowledge of the syllabus perspectives. It is when the LPPs are absorbed into all the activities of the practice that they are able to move to a more centripetal position in the community of practice.

## **Summary**

Chapter Seven examined the engagements of a sample of pre-service PDHPE teachers with the 1999 Stage 6 PDHPE syllabus. Similarly to their more experienced colleagues, the PDHPE HSC markers, the pre-service teachers preferred those HSC options with a human movement sciences perspective. However, in contrast to the PDHPE HSC markers, pre-service teachers were more likely to select those options with a socio-cultural perspective in 42.5 per cent of cases. These legitimate peripheral participants in the broader PDHPE community of practice, selected their HSC options based on student interest, the expertise of the teacher, the practical nature of the options, related pedagogy and the application of the option beyond school. In an effort to learn about a socio-cultural perspective of health and physical activity, pre-service PDHPE teachers suggested that they would work closely with more experienced Stage 6 teachers in schools. This has implications for the range of colleagues to whom these pre-service teachers have access and the availability and type of professional socialising opportunities, such as practicum placements, to which the pre-service teacher is exposed.

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## Chapter Eight

### Lessons Learnt and Pathways to Follow

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This chapter will reflect on how the findings of this thesis have implications for the professional development of the community of practice of PDHPE HSC markers and design of tertiary preparation courses for pre-service PDHPE teachers. Finally, a framework for cultivating conditions for change within the PDHPE community of practice is suggested.

#### **Significance of Research**

##### **Application to HPE as a discipline**

This research contributes significantly to the discipline of Health and PE, both nationally and internationally as it has identified the circumstances necessary to assist in cultivating conditions conducive to curriculum change in a PDHPE community of practice. The literature presented in Chapter Two and the findings presented in Chapters Five and Six point out the difficulty PDHPE teachers have in adapting to the Stage 6 PDHPE curriculum change and the impact it has on their professional identity.

In response to the research question “what is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?” the results presented in this thesis have found that by participating in overlapping communities of practice, engaging in boundary encounters that focus on a socio-cultural perspective of health and physical activity assists NSW Stage 6 PDHPE teachers to more openly engage with this syllabus perspective. Furthermore, by brokering in the community of practice of Stage 6 HSC markers these teachers who have experienced boundary encounters can assist their colleagues to translate socio-cultural perspective of the syllabus. By working on the fringes of different communities of practice, the PDHPE HSC markers who act as brokers are bringing different perspectives to their work and that of their colleagues with whom they interact. For those PDHPE HSC markers who see the value in assisting their HSC students to further understand the concept of a socio-cultural perspective of health and physical activity, both in terms of an improved HSC examination mark and for their broadened view of the world, these brokers become mentors and centripetal members in their community of practice.

For tertiary preparation courses, the thesis brings lessons regarding the inclusion of subjects with a socio-cultural perspective. Chapter Seven indicates the need for pre-service teachers to be engaged more deeply in subjects that challenge their understandings of a socio-cultural perspective of health and physical activity and model pedagogies that are creative and applicable to the teaching of content with this perspective.

### **Application to Communities of Practice Literature**

Similarly, this thesis has contributed toward the literature on communities of practice by identifying that, for a particular community of practice, boundary experiences and brokering opportunities are paramount to considering and engaging with curriculum change. While previous literature has adopted the framework of communities of practice to discuss teacher professional development and responses to curriculum change (Palinscar et al., 1998; Rogoff et al., 2001; Reynolds, 2001) this thesis has applied the framework to centripetal (HSC markers) and peripheral members (pre-service teachers) of a community of practice, presenting the breadth of participants in a community of practice and their responses to curriculum change.

The theoretical framework of a community of practice (Lave & Wenger, 1991) was applied to describe and explain the professional identity of both HSC markers and pre-service teachers, and how this affected their engagement with HSC syllabus options. The findings of this thesis have implications not only for the community of practice of PDHPE HSC markers, and the legitimate peripheral participants; that is the pre-service PDHPE teachers, but for the nature of professional development in the broader PDHPE community of practice, and the design of tertiary preparation courses for pre-service PDHPE teachers. In the broader research context, findings from this thesis may have implications for other NSW KLA professional development opportunities, particularly in KLAs where subject disciplines have been amalgamated such as Creative Arts and Human Society and its Environment. Similarly the findings may be extrapolated to Health and PE communities of practice in other Australian states and internationally. However, it would then also be important to examine the professional identity of these communities of practice and explore their socio-political histories. Thus these results contribute toward both the literature on curriculum change in Health and PE and communities of practice.

### **Unique Methodological Approach**

The research is further significant as it encompasses the diversity of in-service and pre-service teachers' engagement with the 1999 Stage 6 PDHPE syllabus as gathered through comprehensive data sources including surveys, interviews and artefacts. A



particular strength of this study was the capacity to gather data over an extended period of time. This allowed the construction of a snapshot of a community of practice and its sustained engagement with a syllabus. This prolonged period of data collection provided evidence to demonstrate that despite formal professional development opportunities relating to a socio-cultural perspective, the dominance of the HSC options with a human movement science continues to prevail.

Furthermore, as a participant researcher, (syllabus writer, HSC marker, tertiary educator, secondary PDHPE teacher, consultant) in the broader PDHPE community of practice I assumed a unique role in this research as both a participant in and observer of the community's practice. This position provided me with a particular insight into the community of practice's interpretations of the syllabus perspectives and allowed me access to valuable formal and informal data that would not otherwise have been available to me.

## **Revisiting the Thesis**

Chapter One introduced the research by defining the research problem and contextualising the terms professional identity, curriculum and community of practice. The characteristics of a community of practice were briefly explored and I argued that HPE teachers demonstrated these characteristics, justifying the use of this theoretical framework. Curriculum was viewed as a dynamic practice that was a product of institutional and political forces and negotiated at the classroom level. The 1999 Stage 6 PDHPE syllabus was introduced in this light by the researcher. Members of the broader community of practice were presented as they assisted in identifying whether professional socialisation forces were at play in reproducing the identity of the community of practice. As stated in Chapter One the research aimed to answer the following questions:

1. What factors influence the (re)production of the professional identity of the community of practice of PDHPE HSC markers?
2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?
3. What factors influence PDHPE pre-service teachers' syllabus selections?
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?

Chapter Two provided an historical context for the development of the NSW Stage 6 PDHPE syllabus and assisted in providing an analysis framework for data relating to

the professional identity of the community of practice of HSC markers and pre-service teachers. The power struggles associated with the formation of the KLA were discussed and the resultant 1990, 1994 and 1999 Stage 6 PDHPE syllabuses were presented. How the inclusion of a socio-cultural perspective of health and physical activity in the 1999 syllabus challenged PDHPE teachers' professional identity formed the focus of this chapter. Chapter Two further expanded on the problem, by indicating how six years after the first HSC examination, Stage 6 PDHPE teachers continue to prefer options with a human movement sciences perspective, that is, *Sports Medicine* (89%) and *Improving Performance* (81%) (NSW BOS, 2006).

Chapter Three described the theory of a community of practice. An historical view, as presented by its originators Lave and Wenger (1991) was critiqued in light of more recent applications of the theory: occupational cultural communities and their applications in industry and educational contexts. Participants in the community of practice were described as core, legitimate or brokers and highlighted with examples from the broader PDHPE community of practice.

Chapter Four justified the methodological and ethical procedures employed in this thesis. My role as a participant researcher was presented and the associated issues of confidentiality and anonymity addressed. The data sources used assisted in creating a representative identity of the sample of participants.

Chapter Five presented the findings from a survey of PDHPE HSC markers. A *representative professional profile* of a PDHPE HSC marker was constructed as an outcome of the data analysis. The analysis of the data pointed to several factors that influenced PDHPE HSC markers' selections of HSC options, including academic ability, sex and interest of their students. The variables of sex of marker, geographic location of school, educational sector, tertiary preparation, sources of professional development, years of teaching experience and years of teaching Stage 6 PDHPE were cross-tabulated with first preference HSC option to investigate whether the profile of HSC markers influenced their HSC option preference. Sources of professional development, years teaching experience and sex of the PDHPE HSC marker were the three variables that influenced markers' HSC option preferences. The results of this chapter indicated that PDHPE HSC markers are practical doers, seekers of certainty, gendered interpreters of the syllabus, and conservative participants in the community of practice who aim to maintain the status quo.

Chapter Six constructed a profile of four members of the community of practice of PDHPE HSC markers. These markers' professional identities most typically exemplified

those represented in the PDHPE HSC marker survey (Chapter Five). The data gained from interviewing these four research participants indicated that identity in a community of practice contributed to how members were positioned, how their knowledge was valued, and how other members viewed them.

Opportunities to participate in overlapping communities of practice, in the form of brokering, prepared markers to engage with the socio-cultural perspective of the syllabus. These experiences had implications for both their own future practice and their willingness and ability to share this new knowledge with other members of the community of practice. This multi-membership in overlapping communities of practice had implications for the brokers' professional identity: Ruby and Jasmine were viewed by other PDHPE markers and Stage 6 PDHPE teachers as legitimate, respected, trusted and centripetal members. Both however, questioned their own role in the community of practice, feeling like fringe dwellers. Zach and Patrick both aligned themselves with the human movement science perspective of the Stage 6 syllabus. While Zach had been provided with boundary encounters with the NSW BOS these opportunities only furthered his commitment to the dominance of options such as *Sports Medicine* and *Improving Performance*. Zach viewed himself as an expert in these areas and believed his knowledge of these topics was highly valued by the community of practice of PDHPE HSC markers.

Chapter Seven highlighted the role of newcomers to the broader PDHPE community of practice. These newcomers, pre-service PDHPE teachers, (known as legitimate peripheral participants), were surveyed to identify their engagements with the Stage 6 PDHPE syllabus, and investigated the role that their tertiary preparation played assisted in reproducing or transforming the professional identity of the broader PDHPE community of practice. Like the PDHPE HSC markers, the pre-service teachers preferred those options with a human movement sciences perspective, however, their responses to the survey indicated that they were engaging with HSC options with a socio-cultural perspective in greater percentages than HSC markers. The sample of pre-service teachers aligned their understanding of PDHPE with those subjects that dominated their tertiary preparation courses: those that were science-based or had opportunities for practical activities. Pre-service teachers indicated in their survey responses that the practical nature of the HSC options, student interest, teacher expertise and interest, pedagogy and application beyond school were the factors that influenced their selection of PDHPE HSC options. In an effort to learn about a socio-cultural perspective of health and physical activity, the sample of pre-service teachers indicated that interacting with more experienced Stage 6 teachers was their preferred professional development strategy.

## Lessons Learnt

Table 8.1 briefly summarises the research findings of the thesis.

*Table 8.1.* Summary of Research Findings

Research Questions	Thesis Findings
1. What factors influence the (re)production of the professional identity of the PDHPE community of practice of HSC markers?	The professional identity of the community of practice of PDHPE HSC markers was influenced by the socio-historical politics of their KLA, their personal commitment to physical activity, their professional socialisation during their tertiary preparation and as participants and observers of their practice (Chapters Two, Five and Six).
2. How does the professional identity of the community of practice of PDHPE HSC markers influence their syllabus selections and responses to syllabus change?	The professional identity of the community of practice of PDHPE HSC markers can be described in terms of practical doers, seekers of certainty, gendered interpreters of the syllabus, and conservative participants in the community of practice who aim to maintain the status quo. This professional identity influences their syllabus selections and responses to syllabus change. Sources of professional development, years of teaching experience and sex of the PDHPE HSC marker were the three variables that most influenced markers' HSC option preferences (Chapters Five and Six).
3. What factors influence PDHPE pre-service teachers' syllabus selections?	The sample of pre-service teachers aligned their understanding of PDHPE with those subjects that dominated their tertiary preparation courses: those that were science-based or had opportunities for practical activities. This alignment assisted in shaping their professional identity. Their professional identity was further shaped by their exposure to in-service PDHPE teachers. Pre-service teachers indicated in their survey responses that the practical nature of the HSC options, student interest, teacher expertise and interest, pedagogy and application beyond school were the factors that influenced their selection of PDHPE HSC options (Chapters Two and Seven).
4. What is required to assist PDHPE HSC markers and pre-service PDHPE teachers to engage with the socio-cultural perspective of the 1999 Stage 6 PDHPE syllabus?	Opportunities to participate in overlapping communities of practice, in the form of brokering, prepared markers to engage with the socio-cultural perspective of the syllabus. HSC markers voiced their preference for professional development activities that involved liaising with their colleagues in informal ways. The pre-service teachers indicated interacting with more experienced Stage 6 teachers as their preferred professional development strategy (Chapters Five, Six and Seven).

As outlined in the introduction to this chapter, this research has implications for the i) professional development of PDHPE HSC markers; and ii) design of tertiary preparation courses for pre-service PDHPE teachers. Each will be discussed in turn.

### **PDHPE HSC Markers – What We Know**

As outlined in Chapter Two, the PDHPE KLA has been dominated by the masculine discourses of human movement sciences (Hutchins & Macdonald, 1993; Sparkes, 1990) and this has contributed toward shaping the professional identity of members of the broader PDHPE community of practice. As evidenced by teachers' HSC option selections of *Sports Medicine* and *Improving Performance*, these discourses continue to prevail and still hold significant power within the community of practice of PDHPE HSC markers. As seekers of certainty, PDHPE HSC markers maintain their selection of options that offer “black and white answers” (*Sports Medicine* and *Improving Performance*). These options continue to reaffirm their existing professional identity and mirror their tertiary preparation and personal interests.

The research data indicated that the sex of the PDHPE HSC marker directly influenced their selection of HSC options with male markers more likely to select *Improving Performance*; an option focused on physiological and psychological approaches to training; while female markers were more likely to select *Sports Medicine*. Historically, the subject discipline has aligned itself with the sciences; for example, anatomy, physiology, medicine to benefit from the resources and value associated with high status knowledge. Within the community of practice of PDHPE HSC markers, this knowledge continues to maintain its value for the majority of HSC markers, as they derive professional and personal satisfaction from engaging with the subject matter with which they are familiar (Tinning et al., 2001). As practical doers, PDHPE HSC markers also based their selection of HSC options on the opportunity to participate in physical activity for both themselves and their students.

Chapter Five indicated that their perceptions of their students' interests and academic ability influenced the PDHPE HSC markers' selection of HSC options. Furthermore, as gendered interpreters of the syllabus, PDHPE HSC markers predominantly adopted traditional notions of masculinity and femininity in selecting HSC options for their students and devising learning strategies for their male and female students. As highlighted by the voices of Zach and Patrick (Chapter Six), *Improving Performance* and *Sports Medicine* were perceived as more appropriate for male students who needed to be active and engage with options that suited their academic ability. These

traditional notions of gender can be attributed to the socialising forces of the HSC markers' tertiary preparation and participation in the culture of sport (see Armour & Jones, 1998; Dewar, 1989; Hutchinson, 1993; Lawson, 1988; Macdonald & Tinning, 1995). PDHPE HSC markers indicated in their survey responses that informal networking, and learning through their colleagues was highly valued and that this was their preferred means of learning about a socio-cultural perspective. The professional identity of PDHPE HSC markers in their community of practice and the factors that influence their selection of HSC options, as indicated in the results of this thesis, have implications for professional development.

### ***Implications for the Professional Development of PDHPE HSC Markers***

#### ***Brokering***

Chapter Six suggested that brokering provides opportunities for members to be exposed to different perspectives. The permeable boundaries of overlapping communities of practice provide spaces for members of the community of practice to gain new insight (Wenger, 1998). Professional development experiences such as HSC marking an option with a socio-cultural perspective, authoring Stage 6 PDHPE textbooks or consultancy work programming units reflecting a socio-cultural perspective assist PDHPE HSC markers to learn about and advocate for syllabus changes. Interviews with both Ruby and Jasmine (Chapter Six) are testament to the benefits of access to the diversity of information, resources and opportunities for participation (Lave & Wenger, 1991) gained from participation in overlapping communities of practice. However, in order for the marker to learn about a socio-cultural perspective, the brokering activities need to directly engage the marker with the HSC options that had a socio-cultural perspective. For example, it could be argued that in the absence of any exposure to activities from a socio-cultural perspective, Zach's brokering experiences with the NSW BOS only reinforced his knowledge of and commitment to a human movement science perspective.

Through brokering experiences members of the community of practice of PDHPE HSC markers were repositioned. Those members, who went beyond the boundaries of the community of practice and returned, adopted multiple identities within the broader PDHPE community of practice. They were viewed as legitimate, respected, trusted and centripetal members, and were essentially given licence by other members of the community of practice of PDHPE HSC markers to share their knowledge. Brokering further offered the potential for the full range of masters' practices to be observed by HSC markers. As HSC markers travel across the boundaries of overlapping communities they witness and engage with the broader array of discourses associated with the Stage 6 syllabus.

### *Recommendations for the Professional Development of PDHPE HSC Markers*

- Systemic providers of professional development need to devise multiple opportunities for brokering especially for male HSC markers. These opportunities could be in the form of programming with colleagues at network meetings, involvement in specific project teams, research-related projects or being assigned to positions of responsibility that require knowledge of a socio-cultural perspective of health and physical activity. In these capacities the PDHPE HSC markers could be engaged in boundary encounters with members of the broader PDHPE community of participation and therefore be exposed to the greater breadth of perspectives and knowledge around the Stage 6 PDHPE syllabus.
- The Supervisor of PDHPE HSC Marking needs to assign a broad diversity of HSC markers to options with a socio-cultural perspective, especially male markers. This opportunity to be formally exposed to a socio-cultural perspective would allow a range of markers to draw on the knowledge of Senior Markers who had extensive experience and a depth of understanding of the socio-cultural perspective. Lave and Wenger (1991) would describe this opportunity as one which allows the newcomer to view the breadth of the master's activities.
- Professional associations and education systems need to manipulate groupings of participants during professional development opportunities. This action would assist in exposing those with a dominant human movement sciences perspective to their colleagues' understandings of a socio-cultural perspective of health and physical activity. Learning in a community of practice is shared and negotiated (Wenger, 1998) and as such, these interactions with colleagues provide opportunity for negotiated meanings and shared practice.
- Professional associations and education systems need to utilise a range of presenters within and beyond the community of practice of PDHPE HSC markers. This would assist PDHPE HSC markers to be exposed to the diversity of discourses surrounding Health and PE and provide opportunity to translate these understandings with their colleagues.

### **Pre-Service PDHPE Teachers – What We Know**

As outlined in Chapter Seven, pre-service PDHPE teachers selected *Improving Performance* (20.8%) and *Sports Medicine* (36.7%) as their first preference HSC options. In contrast, to the PDHPE HSC markers, however, the pre-service teachers were not adverse to selecting two of the three options with a socio-cultural perspective: *The Health of Young People* (20.0%) and *Sport and Physical Activity in Australian Society* (20.8%). Pre-service teachers selected *Equity and Health* as their least preferred option. The sample of pre-service teachers aligned their HSC option selections with tertiary

subjects that reflected the masculine discourses of science and medicine. However, unlike the PDHPE HSC markers, their selections of *The Health of Young People and Sport and Physical Activity in Australian Society* suggest that during tertiary preparation is a space in which to cultivate conditions for change.

Several factors influenced pre-service teachers' selections of HSC options including student interest, teacher expertise and interest, pedagogy and application beyond school. Reflecting comments voiced by the PDHPE HSC markers, the sample of pre-service teachers displayed their commitment to participation in physical activity and assumed that their students enjoyed similar interests. This commitment to participating in physical activity not only influenced their selection of HSC options but also the pedagogies employed to teach the options: that is they preferred those which allowed a hands-on and practical approach. Pre-service teachers suggested that those options with a socio-cultural perspective were boring to teach and did not allow for creativity of teaching. The responses to the survey suggested that the professional identity of pre-service teachers in the study was predominantly shaped by the structure of their tertiary preparation. Those pre-service teachers whose degrees were dominated by subjects aligned with the human movement sciences (biomechanics, physiology, anatomy) indicated their preferences for selecting HSC options with a human movement science perspective. This has implications for the design of tertiary preparation courses for pre-service PDHPE teachers in NSW.

### ***Implications for the Design of Tertiary Preparation Courses***

#### ***Boundary Experiences***

Through boundary activities legitimate peripheral participants, in this case, the pre-service PDHPE teachers, learn of the culture of the broader community of practice. Participation provides members with opportunities to learn the culture of their community. As members participate in the community they become more knowledgeable of its practice: they learn the rules, the language and the conventions of the established and core members. It follows then that providing pre-service PDHPE teachers with access to multiple members of the broader community of practice through avenues such as professional experience would allow them to view the breadth of the community's knowledge and culture. These encounters could be directly linked to learning about content in the Stage 6 PDHPE syllabus and pre-service teachers could be placed with experienced teachers, and HSC markers who have knowledge of and advocate for a socio-cultural perspective of health and physical activity.



### *Subjects with a Socio-cultural Perspective*

As evidenced in both the literature presented in Chapter Two and from the data presented in Chapters Six and Seven, the design of most NSW Health and PE courses taught in tertiary settings is dominated by subjects with a human movement science perspective. This has implications for pre-service teachers engaging with a socio-cultural perspective of health and physical activity. Increasing the number of subjects with a socio-cultural perspective in a degree may assist pre-service PDHPE teachers to develop their knowledge of and confidence in teaching those HSC options with that perspective. The design of these subjects needs to challenge the hegemonic professional identity of the broader PDHPE community of practice, and provide pre-service teachers with the confidence to question the taken-for-granted scientific knowledge advocated by the community of practice of PDHPE HSC markers.

Furthermore, these subjects need to provide opportunities for the pre-service teachers to reflect on their own values and attitudes toward applying social justice principles within the community.

### *Modelling Learning Strategies*

The response of the pre-service teachers to the survey suggested that their knowledge of a socio-cultural perspective was limited; that they lacked confidence in addressing sensitive social issues; and viewed the content of the socio-cultural HSC options as dry and difficult to teach in creative ways. During tertiary preparation, an array of teaching and learning strategies could be modeled that showcase how to teach these options in an interactive and engaging manner for HSC students. Providing opportunities for pre-service teachers to view the teaching of in-service PDHPE teachers who teaching HSC options with a socio-cultural perspective would provide opportunities for the pre-service teachers to gain confidence in developing appropriate strategies for teaching about a socio-cultural perspective of health and physical activity.

### *Recommendations for the Design of Tertiary Preparation Courses for Pre-Service PDHPE Teachers*

- Tertiary institutions need to provide a range of boundary encounters with members of the broader PDHPE community of practice. These experiences could be through the existing professional experience placement system or on a more regular basis visiting local schools. It would be essential to expose pre-service teachers to classrooms where HSC options with a socio-cultural perspective were being taught. The opportunity for both formal observations of lessons and informal dialogue with in-service PDHPE teachers would allow pre-service teachers to view and participate in the range of practices within the broader PDHPE community of

practice. As legitimate peripheral participants in the community of practice, pre-service teachers need to have “access to a wide range of ongoing activity, old timers, and to information, resources, and opportunities for participation” (Lave & Wenger, 1991, p. 101). Pre-service teachers could be encouraged to team teach with old timers and share their understandings of how a socio-cultural perspective is presented in the syllabus and could be implemented in the classroom context.

- Tertiary institutions need to examine the inclusion of subjects with a socio-cultural focus in HPE tertiary preparation courses. As outlined in Chapter Two, Five, Six and Seven few subjects exist in most Australian HPE degrees that explicitly address what is a socio-cultural perspective of health and physical activity or address pedagogies for the teaching of the concept in relation to a syllabus. By increased exposure to the perspective, pre-service teachers may be assisted to better understand the complexity of the concept, its application to particular groups of young people whom they will be teaching and build their confidence to teach HSC options which draw on this perspective.
- Tertiary educators responsible for the preparation of PDHPE teachers need to model a variety of creative learning strategies to teach a socio-cultural perspective. Modelling pedagogies relevant to teaching from a socio-cultural perspective, tertiary educators may assist pre-service teachers to gather a bank of relevant strategies for use with their future learners. It follows that this would increase the pre-service teachers’ confidence in devising strategies to challenge social injustice and engage their learners in meaningful and fun learning experiences.

## **Cultivating Conditions for Change**

The implications for both the professional development of PDHPE HSC markers and the design of tertiary preparation courses for pre-service PDHPE teachers could be implemented by cultivating conditions for change within the broader PDHPE community of practice. Wenger, McDermott and Synder’s (2002) seven principles for cultivating communities of practice provide a framework for assisting the members of the broader PDHPE community of practice to engage with a socio-cultural perspective of health and physical activity.

## **Design for Evolution**

Creating opportunities for members of the PDHPE community of practice to participate in a range of activities that nurture interactions between members from the two discourse clusters (i) human movement science and ii) socio-cultural would assist in developing a shared understanding of a socio-cultural perspective of the syllabus. As the data from this thesis suggest these mutual relationships (Wenger, 1998) could

develop during participation at HSC marking, regional network meetings and even virtually through online chat. The boundaries of a community of practice are to be seen as permeable with two-way exchanges of knowledge between newcomers and old-timers. Providing opportunities for HSC markers (old timers) and pre-service teachers (legitimate peripheral participants) to share knowledge would assist in initiating the conversations around a socio-cultural perspective and exchanging interpretations of the syllabus.

### **Open a Dialogue between Insiders and Outsiders**

Wenger et al. (2002) suggest that participating in overlapping communities of practice assists members to develop a broad perspective of their practice. As the data from this thesis suggest, in the case of PDHPE HSC markers, providing opportunities to work with centripetal members such as Head Teachers, systemic consultants or by being seconded to a programming or assessment project aligned with a socio-cultural perspective would support members of the dominant discourse cluster to engage with others in a brokering role, or as a mentee. Informal interactions with PDHPE markers and teachers from neighbouring schools, who engage with a socio-cultural perspective, have the potential to provide a safe space for teachers to investigate their understandings of the range of syllabus options. When members are viewed as full participants in a community of practice, they are expected to share their resources, those that they use to communicate and undertake their practice. These dimensions of competence then become dimensions of a practitioner's identity. In a community of practice, members learn the ways to appropriately work with and engage with others. Sustained engagement in practice provides opportunities for members of a community of practice to effectively interpret and apply the repertoire of the practice.

### **Invite Different Levels of Participation**

Peripheral members of the community of practice need to be provided with opportunities to participate in professional development with centripetal members. As centripetal members adopt leadership positions within the community of practice, they can share their understandings of the domain knowledge with peripheral community members. Educational systems need to create conditions for both formal and informal engagement between both centripetal and peripheral members of the community of practice. Brokering positions could be created to invite centripetal participation from the human movement science discourse cluster. These positions could essentially allow these members to engage with the new knowledge of a socio-cultural perspective in professional development projects.

### **Develop Both Public and Private Spaces**

At the school and regional network level, meetings need to be scheduled to provide spaces for members of the community of practice to share ideas and swap teaching tips. It is necessary to build into formal professional development activities time for members to informally discuss both their understandings of the syllabus perspectives and to exchange implementation issues. This creates a safe space, at an informal level, for members to take risks and test their understandings. Group membership needs to be manipulated to be inclusive of both discourse clusters.

### **Focus on Value**

Within professional development activities time needs to be set aside for members of the community of practice to reflect on the value of their interactions with others as a resource for learning. This reflective time could provide space for pre-service PDHPE teachers to question their own attitudes and beliefs about a socio-cultural perspective.

### **Combine Familiarity and Excitement**

At professional development activities, groupings within the community of practice need to be manipulated to support familiarity and introduce newness. Support and identity confirmation would be supplied by like-minded community members, while including members from both discourse clusters would allow for divergent perspectives to be considered. Availability of workshop presenters to engage with members of the community of practice and sustained time to share knowledge is paramount to creating conditions conducive to curriculum change.

### **Create a Rhythm for the Community**

Within the parameters of the NSW BOS implementation structures, the community of practice needs to create a realistic timeline for implementing HSC options from both perspectives. Initially, PDHPE markers have selected options with which they are familiar. Given the time passed since the 1999 syllabus introduction, it may now be possible for markers to gather resources and develop knowledge to implement an option with a socio-cultural perspective. For many members of the community of practice of HSC markers, this will challenge their professional identity. However, by positioning the socio-cultural perspective as relevant to the needs of young people, through teaching an option such as *The Health of Young People*, this may be possible. Cultivating and enacting each of these conditions for change is the next phase in increasing the uptake of a socio-cultural perspective of health and physical activity.

## **Final Comment**

This thesis provides new knowledge about PDHPE HSC markers and pre-service teachers' responses to curriculum change. Additionally it contributes to the rapidly growing body of literature relating to communities of practice. This thesis has focused on a specific community of practice, and its legitimate peripheral participants – that of pre-service PDHPE teachers. However, this research has far-reaching implications for other Key Learning Areas, other communities of practice of Health and PE teachers, both nationally and internationally, and for the design of Health and PE tertiary preparation courses.

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## Appendix A

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*University of Wollongong*  
*Information and Consent Form*

*Research Title:* A Personal Development, Health and Physical Education Community of Practice Responding to Curriculum Change

*Researcher:* Deb Clarke

- This research project is being conducted as a part of a Doctor of Education supervised by Dr Janice Wright in the Faculty of Education at the University of Wollongong.
- This research is being undertaken in an effort to gather information regarding how PDHPE teachers make choices about the NSW 2 unit PDHPE options to be studied for the Higher School Certificate and on what basis these choices are made.
- Your part in the research, should you consent, will be to complete the accompanying questionnaire. Participants will be further invited to participate in an interview with the researcher.
- The data gathered from the questionnaires and interviews will form the basis of a Doctor of education thesis. Specific participants will not be identified in the thesis, rather the report will comprise a general analysis of the data gathered. Interviewees' identities will remain confidential by altering their names and any other distinguishing characteristics without altering the nature of the data generated.
- After the data has been collated the questionnaires, audio tapes and transcripts of the interviews will be filed in a secure cabinet in the researcher's office.
- The extended aim of the research is to identify the HSC options which teachers would like to teach, however, they feel they may need further resources, professional development, in-service or postgraduate study in order to confidently deliver the option content.
- Completion of the questionnaire and participation in the interview are voluntary. You may withdraw your consent to participate in the research at any time by notifying the researcher.
- If you would like to discuss this research further please contact Deb Clarke on 9514 5192 or Dr Janice Wright on 4221 3664. If you have any enquiries regarding the conduct of the research please contact the Secretary of the University of Wollongong Human Research Ethics Committee on 4221 4457.

Research Title: A Personal Development, Health and Physical Education Community of Practice Responding to Curriculum Change

I, \_\_\_\_\_ (Participant's name) consent to participate as an interviewee in the research conducted by Deb Clarke as it has been described to me in the Information Sheet. I understand that the data collected will be used to form part of a Doctor of Education thesis and I consent for the data to be used in that manner.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Table No \_\_\_\_\_

Please place the tear-off slip in the small envelope and return to the box near Deb's desk at Table 17.

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## Appendix B

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### *NSW PDHPE HSC Marker Survey*

#### *Instructions:*

- If you wish to participate in this survey, please complete the questionnaire and place it in the large attached envelope.
- If you wish to be interviewed regarding this research, please complete the tear-off slip at the base of the Information Sheet and place in the small envelope. Return both envelopes to the box near Table 17.

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#### *School details:*

1. Tick the system to which your school belongs

- ☐ Department of Education and Training
- ☐ Catholic Education Commission
- ☐ Association of Independent Schools
- ☐ Other - Please state \_\_\_\_\_

2. Tick the sex of the students at your school

- ☐ All boys
- ☐ All girls
- ☐ Co-educational

3. Tick the geographical area in which your school is located

- ☐ Metropolitan west
- ☐ Metropolitan south west
- ☐ Metropolitan east
- ☐ Metropolitan north
- ☐ Metropolitan south
- ☐ Hunter
- ☐ Riverina
- ☐ South Coast
- ☐ North coast
- ☐ Other - Please state \_\_\_\_\_

*Teacher Details:*

4. Please tick your sex    ☐ Male                                  ☐ Female

5. List your professional qualifications below:

Qualification

Year Completed

Institution

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6. Please identify any recent professional development activities in which you participated which you feel relate to the teaching of the Stage 6 PDHPE syllabus.

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7. How many years have you been teaching? -----

8. How many years have you been teaching the two unit syllabus? -----

*Option Details:*

9. Please identify the HSC options that you have taught at your current school

Year	HSC Option 1	HSC Option 2
1992		
1993		
1994		
1995		
1996		
1997		
1998		

\*Two options were required to be taught for HSC study 1992-1994

10. If the same option(s) were taught each year, what was your rationale for this process?

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11. Who makes the choice of which option to teach?

- ☐ Head teacher
- ☐ Class teacher
- ☐ Class teacher in negotiation with Head teacher
- ☐ Students from a complete list of options
- ☐ Students from a refined list of options
- ☐ Other - Please state -----

12. On what basis is the choice of option made?

- ☐ Teacher expertise
- ☐ Teacher interest
- ☐ Student interest
- ☐ Available resources
- ☐ Available texts
- ☐ Existing units of work in school
- ☐ Availability of community resources
- ☐ Tradition of school
- ☐ Opportunity to use practical lessons
- ☐ Relates to Core of Stage 6 syllabus
- ☐ Relates to Years 7-10 PDHPE syllabus student knowledge
- ☐ Acts as a vocational pathway for students
- ☐ Timetabling issues
- ☐ Academic ability of the students
- ☐ Style of question posed in the HSC exam
- ☐ Other - Please state -----

13. Please RANK the top three (3) factors that influence your choice of options.

- ☐ Teacher expertise
- ☐ Teacher interest
- ☐ Student interest
- ☐ Available resources
- ☐ Available texts
- ☐ Existing units of work in school
- ☐ Availability of community resources
- ☐ Tradition of school
- ☐ Opportunity to use practical lessons
- ☐ Relates to Core of Stage 6 syllabus
- ☐ Relates to Years 7-10 PDHPE syllabus student knowledge
- ☐ Acts as a vocational pathway for students
- ☐ Timetabling issues
- ☐ Academic ability of the students
- ☐ Style of question posed in the HSC exam
- ☐ Other - Please state \_\_\_\_\_

14. If you had to teach ALL the HSC options, RANK them from 1-6 (where 1 is the option you would most like to teach).

- ☐ Community Health Issues
- ☐ Sociology of Games and Sport
- ☐ Two Social Health Issues: Drug Use and HIV/AIDS
- ☐ Human Movement Analysis: Biomechanics
- ☐ Human Movement Analysis: Applied Anatomy, Exercise Physiology and Principles of Training
- ☐ The Art and Science of Coaching

15. Please explain why you ranked the options in the above order.

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16. If you had to teach the option you ranked 6<sup>th</sup> in question 14 what measures would you take before you taught the option? Please tick as many as needed.

- ☐ Undertake postgraduate study
- ☐ Participate in in-service courses
- ☐ Do professional reading
- ☐ Talk to colleagues who had taught the option
- ☐ Gather resources from colleagues who had taught the option
- ☐ Visit colleagues' schools and observe successful strategies for teaching the option
- ☐ Collect texts and other professionally prepared resources
- ☐ Other - please state \_\_\_\_\_

17. Why do you think The Art and Science of Coaching is the most popular option?

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Thank you for your time.

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## Appendix C

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### *PDHPE HSC Marker Interview Guide*

#### *Teacher details:*

- School and region
- Sex of students at school
- Position in school
- Years teaching
- Years teaching Stage 6/2 unit PDHPE course
- Tertiary qualification/s
- Tertiary institution/s attended

#### *Preferences for perspectives (human movement sciences v socio-cultural):*

- What subjects did you enjoy during your tertiary studies?
- What subjects were you good at?
- Do you think your tertiary studies prepared you to teach the new syllabus?
- What options do you teach for the HSC?
- Why do you choose these options?
- Who makes the choice regarding what options students study?
- What HSC questions have you marked?
- Why do you like marking these questions?

#### *Syllabus change and professional learning:*

- How much do you think the syllabus has changed?
- What do you think about these changes in the syllabus?
- What do you think is needed to assist teachers to learn about and respond to the syllabus changes?
- How will/have you and your colleagues respond/ed to these changes?



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## Appendix D

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### *PDHPE Pre-service Teacher Survey*

Please indicate by ticking

1. Sex      ☐ male      ☐ female
  
2. Course undertaken      ☐ Bachelor + Graduate Diploma of Education  
   ☐ Bachelor of Education
  
3. Which HSC options would be your first two preferences to teach your future students?

I -----

II -----

4. Explain why you would teach these options.

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5. Which subjects have you studied during your degrees that relate to the teaching of any of the HSC options?

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6. Which of these subjects did you most enjoy? Explain why.

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7. In which of these subjects did you receive high grades?

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8. Please *RANK* the HSC options (with 1 being the option you are most likely to teach and 5 being the least likely).

- ☐ The Health of Young People
- ☐ Sport and Physical Activity in Australian Society
- ☐ Sports Medicine
- ☐ Improving Performance
- ☐ Equity and Health

9. Please explain why you ranked the options in the above order.

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10. If your future Head Teacher required you to teach the HSC option that you ranked 5<sup>th</sup> in question 8, what measures would you take before you taught the option? Please tick as many as needed.

- ☐ Undertake postgraduate study
- ☐ Participate in in-service courses
- ☐ Do professional reading
- ☐ Talk to colleagues who had taught the option
- ☐ Gather resources from colleagues who had taught the option
- ☐ Visit colleagues' schools and observe successful strategies for teaching the option

- ☐ Collect texts and other professionally prepared resources
- ☐ Other - please state \_\_\_\_\_

11. On what basis would you select HSC options to be studied by your future students? Please *RANK* your top *three* (3).

- ☐ Teacher expertise
- ☐ Teacher interest
- ☐ Student interest
- ☐ Available resources
- ☐ Available texts
- ☐ Existing units of work in school
- ☐ Availability of community resources
- ☐ Tradition of school
- ☐ Opportunity to use practical lessons
- ☐ Relates to Core of Stage 6 syllabus
- ☐ Relates to Years 7-10 PDHPE syllabus student knowledge
- ☐ Acts as a vocational pathway for students
- ☐ Timetabling issues
- ☐ Academic ability of the students
- ☐ Style of question posed in the HSC exam
- ☐ Other - Please state \_\_\_\_\_