

2017

Lost in translation? – The “integration of theory and practice” as a central focus for senior schooling Physical Education Studies

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**Lost in translation? – The “integration of theory and
practice” as a central focus for senior schooling
Physical Education Studies**

This thesis is presented for the degree of

Doctor of Philosophy

Andrew Charles Jones

Edith Cowan University

School of Education

2017

Abstract

In February 2007 a new senior secondary Physical Education Studies (PES) was introduced in Western Australia (WA). The course was one of some 50 new courses that were developed in conjunction with the introduction of a new Western Australian Certificate of Education (WACE). Notably, the rationale for PES claimed that the “integration of theory and practice is central to studies in this course” (Curriculum Council of WA [CCWA], 2009, p. 2). Focusing on the initial years of implementation this study explored curriculum change and reform within the Health and Physical Education (HPE) Learning Area and specifically, in the context of PES in Western Australia (WA), to consider the extent to which this significant course intention has been realised.

Accordingly, the study investigated the discourse(s) that formed PES in WA, before using this as a backdrop to examine the notion of integrated theory and practice in “enactment” (Ball, Maguire, Braun, Hoskins, & Perryman, 2012, p. 6). In particular, the study addressed the dynamic relationship between curriculum, assessment and pedagogy, and sought a better understanding of the policy making and course design intentions that formed PES, and the representation, expression and contestation of varied discourse. The study had the ultimate aim of identifying “creative and original” (Ball et al., 2012) practice in the field of senior school physical education (PE), and specifically integrated theory and practice pedagogy.

Literature that locates the study in the context of policy and enactment is reviewed, before attention turns to the field of pedagogical practice in PE as linked to senior secondary school, and in particular Bernstein’s conceptualisation of pedagogic discourse (1990) and Arnold’s (1979) concepts or dimensions, namely ‘in, through and about’ movement.

The study employed a phased approach, investigating three research questions with findings from Phase 1 (research question one) informing and providing a backdrop to Phase 2 (research questions two and three). The methodology for the phased study was informed by Bernstein’s conceptualisation of pedagogic discourse, and specifically the Recontextualising and Secondary Fields, and utilised qualitative research methods, including semi structured interviews, document analysis and a series of case studies in schools.

The research findings from phase one of the study established that the new PES course in WA emerged on the back of significant educational reform that enabled a series of varied overarching discourse(s) pertinent to contemporary debate in the broader education and PE context, both in Australian and Internationally to be advanced. The study then explored how

one of these overarching discourses, namely the 'integration of theory and practice' was interpreted and enacted in schools and the factors influencing the various approaches and responses identified. The data highlighted that teachers in the context of PES in WA, broadly interpreted the 'integration of theory and practice' in terms similar to Arnold's conceptualisation. The study generated data that suggests evidence of some, or what might be called "modest" (Brown & Penney, 2013), examples of integrated theory and practice teaching and learning arrangements. These varied considerably and consequently there was little or no sign of established 'integrated theory and practice' pedagogy across the schools involved in the study. Accordingly this thesis focuses on examples of these various arrangements.

This study extends understanding of the various discourses impacting "integration", most notably Arnold's conceptualisation of learning *in/through/about* movement, and emphasises the need for more work that engages with the complexities of how curriculum and assessment discourses can be effectively mediated through pedagogical practice. A series of recommendations, which utilise Bernstein's conceptualisation as a central organiser, are made. These focus on 'how' conditions in the recontextualising fields can be arranged to create a curriculum, assessment and pedagogic environment where integrated theory and practice as a centre piece for PES could prosper, and 'what' pedagogically can be done to develop practice in this area. The recommendations address curriculum, assessment and pedagogy at multiple levels and while specifically related to the context of PES in WA, are typically pertinent to senior secondary school courses nationally and internationally.

Declaration

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education;
- (ii) contain any material previously published or written by another person except where due reference is made in the text; or
- (iii) contain any defamatory material.

Signed:

Date: 12/1/2017

Acknowledgements

I would like to acknowledge all the help, assistance and advice that I have been given along the way to completing this study. In particular, my heartfelt thanks to my three supervisors, Associate Professor Paul Newhouse, Professor Dawn Penney and Dr Ken Alexander. They are all past and/or present colleagues and I wish to thank them for their patience, collegiality and care in leading me through this process that has been a true education.

I acknowledge that this thesis was edited by Elite Editing, and editorial intervention was restricted to Standards D and E of the *Australian Standards for Editing Practice*.

Thank you to all the interview participants whose generous time, resources and knowledge provided such a rich source of insight.

Thank you to my wonderful family, my wife Dawn, and sons Ben and Harry. Here it is at last. I love you dearly.

Most of all I wish to acknowledge my Mum, Maureen and Dad, Fred, who both sadly passed away during the completion of this thesis. They were always encouraging and always supportive. I love you dearly and I hope you are proud. This work is dedicated to you.

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List of Abbreviations

A – Level - Advanced Level

ACARA – Australian Curriculum, Assessment and Reporting Authority

ACHPER - Australian Council of Health and Physical Education

AISWA -Association of Independent Schools of WA

ARC - Australian Research Council

ATAR - Australian Tertiary Admissions Rank

BSSSS - Board of Senior Secondary Schools Studies

CAC - Course Advisory Committee

CEO - Catholic Education Office

CCWA - The Curriculum Council of WA

CSE – Certificate of Secondary Education

DoE – Department of Educations

ECU - Edith Cowan University

GCSE - General Certificate of Secondary Education

HPE – Health and Physical Education

IPS - Interpersonal Skills

KU - Knowledge and Understandings for Physical Activity

LAO's – Learning Area Outcomes

MCEETYA - Ministerial Council on Education, Employment, Training and Youth Affairs

MCEECDYA - Ministerial Council for Education, Early Childhood Development and Youth Affairs

NAPLAN - National Assessment Plan for Literacy and Numeracy

OBE – Outcomes Based Education

ORF – Official Recontextualising Field

PES – Physical Education Studies

PAS - Physical Activity Skills

PRF – Pedagogic Recontextualising Field

HGPE - Higher Grade Physical Education

HSPE - Higher Still Physical Education

QSA - Queensland Standards Authority

SCSA - School Curriculum and Standards Authority

SDERA - School Drug Education and Road Aware

SMS - Self-management Skills

WA – Western Australia

WACE - Western Australian Certificate of Education

WAIS - Western Australia Institute of Sport

WJEC – Welsh Joint Education Committee

TAFE - Technical and Further Education

TGfU – Teaching Games for Understanding

TEE - Tertiary Entrance Exam

UWA - University of WA

VA – Values and Attitudes for Physical Activity

VCE - Victorian Certificate of Education

VCEPE - Victorian Certificate of Education Physical Education

Chapter 1

Introduction

In 2007 a new senior secondary school¹ Physical Education Studies (PES) course was introduced in Western Australia (WA). Like no other such Physical Education (PE) course before, the rationale for the PES in WA explicitly articulated the intent that the “integration of theory and practice” be “central to studies” in the course (Curriculum Council of Western Australia [CCWA], 2009c, p. 2). Focusing on the initial years of implementation, this study explored curriculum change and reform within the Health and Physical Education (HPE) Learning Area and specifically, in the context of PES in WA, to consider the extent to which this significant course intention was realised.

In particular, as the researcher, I was interested in the dynamic relationship between curriculum, assessment and pedagogy; that previous work within and beyond PE has repeatedly highlighted as critical in considering notions of ‘reform’ (see Chapter 2). Consequently, I sought a better understanding of the policy-making and course-design intentions that formed PES, and the representation, expression and contestation of varied discourse (in particular the integration of theory and practice) subsequently arising in schools amidst what Ball, Maguire, Braun, Hoskins and Perryman (2011) call “enactment”. The concept of “enactment” which acknowledges the importance of the “creative processes of interpretation and recontextualisation” and the “translation of texts” in the production of “contextualised practices” (Ball et al., 2012, p. 3) was central to this study. As explained further in Chapter 6 the study covered the period of course conceptualisation and development from approximately 2002 to 2007, and then the initial seven years of enactment and the *interpretation, recontextualisation and translation* of PES between 2007 and 2015.

The study had the ultimate aim of identifying “creative and original” (Ball et al., 2012, p. 2–3) practice in the field of senior school PE, and specifically ‘integrated theory and practice pedagogy’, which was overtly described in various syllabus iterations (2005, 2006 and 2008) and most recently in 2009 (see Chapter 2). The study sought to explore what the enactment and multiple interpretations of this central discourse looked like in schools, how this particular discourse played out in teachers’ practices, and gain critical insights into why pedagogical practices emerged in the form that they did in specific

¹ Senior secondary schooling is a term commonly used throughout Australian education systems and encompasses years 11 and 12 of schooling.

school contexts. From the outset it is acknowledged that what may be deemed ‘creative and original’ practice and more specifically, how the notion of ‘integration’ should appropriately be developed in PE, are contentious issues. At this early point in the thesis I also foreground that despite the central intent of the PES course in WA to integrate theory and practice, this study revealed that in enactment this message was for the most part *lost in translation*, with evidence of only *modest* ‘integrated theory and practice’ pedagogical practice in schools to support this course intention. Consequently, this thesis is a story of *how and why* particular interpretations and enactment of ‘integration’ arose, as much as *what* these were.

Throughout this thesis I engage with the work of Basil Bernstein (1990) and Peter Arnold (1979) to pursue these matters of *what, how and why*. The work of Bernstein focuses attention on the nexus between curriculum, pedagogy and assessment to consider *how* and *why* features of this interrelationship got so out of balance, and in particular, *how* and *why* assessment became such a key driver in course delivery. The study focused specifically on what Bernstein termed the *Recontextualising Fields*, that are directly associated with the regulation and control of discourse(s). If the rhetoric of integrated theory and practice as articulated in the PES syllabus in WA was going to become reality I contend that the actions and decisions of agents within the recontextualising fields was going to be crucial. Chapter 3 explores Bernstein’s concepts as applied in this study and the insights provided guide discussion through the thesis.

Similarly, the study used Peter Arnold’s (1979) internationally recognised conceptualisation of *learning in, through and about movement* as a key reference point. This conceptualisation (discussed further in Chapter 2) in conjunction with other literature (Brown, 2012; Brown & Penney, 2013; Hay & Penney, 2009; Kirk et al., 2002; Macdonald & Brooker, 1997) both in the field of education and specifically HPE, provides a basis for a working definition of ‘integrated theory and practice’. As explained in Chapter 4, this definition is used as a basis for analysis to consider the degree to which this central course intention is evident in practice, and identify examples of “creative and original” integrated theory and practice in schools.

Background to the study

The story of this new senior school PES course in WA begins with some background to the reforms upon which it was built (including specific details related to the PES course design process), and a brief profile of the author and researcher.

The context – Senior secondary physical education in WA

In February 2007 a new senior secondary PES course was introduced in WA. The course was one of some 50 new Australian Tertiary Admissions Rank (ATAR) courses that were developed in conjunction with the introduction of a new WA Certificate of Education (WACE). The changes arose from a review of post-compulsory schooling (later to be renamed Senior Schooling) which identified the need for greater alignment between senior secondary education and Kindergarten to Year 10 curriculum; a broadening of the range of tertiary entrance options and subjects available to students; and a rationalisation of course structures, assessment systems and subject selection criteria in senior secondary education (CCWA, 2002; see also Penney & Walker, 2007). The reforms were explicit in removing a long-standing distinction between tertiary entrance and non-tertiary entrance subjects. For the first time in WA, achievements in PES (together with Outdoor Education, introduced 2008 and Health Studies, introduced 2009) would be recognised for the purposes of gaining tertiary entrance. Prior to the introduction of the WACE, PE was one of a group of ‘List Two’ courses (also including Health Studies and Outdoor Education Studies) that were non-tertiary entrance (non-TEE), commonly referred to as ‘Wholly School Assessed Courses’ and did not carry an external examination requirement. The PES course syllabus indicated that 70% of assessment was to be practical and 30% theoretical, and assessments were driven by state-wide ‘Common Assessment Tasks’. The term ‘theoretical’ and the general reference to ‘theory’ in the course documentation was reflective of common practice in schools and perhaps more broadly in education, as referring to the ‘knowledge’ component of the course, spanning the disciplinary areas of anatomy and physiology, skill acquisition and sociology.

Our Youth Our Future – Senior secondary schooling reform in WA

The removal of the historical distinction between tertiary entrance and non-tertiary entrance subjects meant that prospectively, achievement in any of the new courses would be acknowledged for tertiary entrance and in the award of the new WACE. The origins of the changes lay in a review of post-compulsory schooling and the subsequent publication in 2002 of *Our Youth Our Future. Post-Compulsory Education Review* (CCWA, 2002). *Our Youth, Our Future* provided the catalyst, underpinning principles and policy platform for an ongoing reform of senior secondary schooling in WA. Penney (2008) observed that the report was characterised by an “overt concern for the achievements and potential of more students to be recognized and more students to have opportunities to realize their personal potential and be supported in doing so” (p. 38). It

was against this background that the PES course was designed. As such this study sought to examine the discourse that formed the policy principles in this publication and how this background played out in the design and final course document for PES in WA. Findings centring on this are framed as a backdrop to the subsequent phases of the study, where attention turned to whether the aspiration to integrate theory and practice has been realised, and if so, to what extent and in what ways.

Physical Education Studies: The course and its design process

PES together with the courses Outdoor Education (introduced 2008) and Health Studies (introduced 2009) were associated with the HPE Learning Area that would provide students with the first opportunity to study HPE contexts towards tertiary entrance. A PES course reference group was established in 2003 to provide advice and guidance as the writing of the course progressed. The group was made up of representatives (typically with expertise in the HPE Learning Area) from educational system and sectors, universities, The Australian Council of Health and Physical Education (ACHPER), The Curriculum Council of WA (CCWA), (which in 2014 became none as the School Curriculum and Standards Authority or SCSA), associated education institutions such as TAFE (Technical and Further Education), the WA Institute of Sport (WAIS), and the WA Department of Sport and Recreation. The reference group was therefore a mix of teachers, academics, bureaucrats and sporting administrators. In addition, two academics and a teacher were recruited as writers. Development, consultation, action research and accreditation, culminated in the first implementation of the course in 2007 (although schools were given the option of postponing implementation until 2008 if they felt they were not ready to start in 2007).

Structurally, all 50 new courses adopted a standard framework, with the anticipation that a course would usually be studied over two years and comprise semesterised units, with students typically completing four units of study in a course. Using a generic template that was common to all new courses, units were developed to relate to three stages of learning (Stage 1, Stage 2, Stage 3), with the anticipation that students may commence their studies at differing stages and similarly, progress to different stages dependent upon their prior learning and abilities. Two units (A and B) were developed for each stage, with additional units (C and D) subsequently developed for Stage 1 to ensure that diversity in students' prior learning would be accommodated. In order for achievement in any course to be recognised for tertiary entrance, students were required to extend their studies to at least Stage 2 units and to undertake an external examination at the end of year 12. Thus,

from 2007, for the first time in WA students could elect to study PES with the intention that their achievement in the course would count towards tertiary entrance and they would be required to sit an external examination for the course in year 12.

Chapter 6 provides an in-depth discussion and analysis of features of the PES course as they were variously articulated in a number of official curriculum texts. Here, an introductory overview is provided that draws selectively on these texts. The PES course content was divided into three content areas: (i) movement, skills, strategies and tactics; (ii) physiological dimensions; and (iii) social dimensions (CCWA, 2005, 2006). As discussed further in Chapter 6 and in previous publications (Penney, Jones, Newhouse, & Campbell, 2011), all units of study were designed to address each content area and to progressively support achievement of all learning outcomes. At the time of initial development, these learning outcomes were: Outcome 1, Physical Activity Skills (PAS); Outcome 2, Self-management and Interpersonal Skills for Physical Activity (SMS/IPS); Outcome 3, Knowledge and Understandings for Physical Activity (KU); Outcome 4, Values and Attitudes for Physical Activity (VA). The course did not prescribe the physical activity contexts through which course content should be taught and/or assessed. From a teaching and learning perspective teachers were left to make local decisions about the sporting and physical activity contexts that they would use to illustrate and explore content, both practically and theoretically.

As Chapters 5 and 6 explain, the matters of school based and external assessment and changes to the framework applicable to all of the new senior secondary courses, impacted significantly on the development of PES. At this point in the thesis it is pertinent to note that at the end of each unit the course specifications required teachers to provide a school based assessment mark out of 100. This was calculated from student work that encompassed three types of assessment, as now described:

Performance/Response: The assessment of students engaged in an activity, on-the-spot evaluation of performance and student reflective response about their forms and settings, in the role of performer, coach and/or official;

Investigation: Investigation of own and others' current participation in physical activity, participation potential, physical activity issues and social contexts. The findings may be communicated in any appropriate form e.g. written, oral, graphical, video, or various combinations of these; and

Response: Students apply their knowledge and skills when analysing and responding to a series of stimuli or prompts. Response to, analysis and evaluation of own or others' (peer or professional) participation in

physical activity. Student responses may be oral, written or multimedia.
(CCWA, 2006, p. 9)

The external examination comprised a written paper with a weighting of 70% and a practical performance examination weighted 30% of the total mark. The decision to incorporate a practical dimension is significant as PES in WA was the only external practical examination for an HPE course in Australia.

The PES course in WA has proved to be a popular choice for young people in the WACE portfolio of subjects, with over 5000 students enrolled at different stages in 2015, which ranks PES in the top five of all course offered outside the various English, Mathematics and Science courses.

Personal narrative

In introducing this study I would like to acknowledge my own involvement in the development and implementation of the PES course in WA, by way of a short personal narrative that reflects on the development process before the formal introduction in February 2007 and then enactment thereafter. I also briefly reflect on my early career as a beginning teacher in the United Kingdom (UK). This personal narrative is also an acknowledgment that firstly, '*you can never take the researcher out of the research*', and secondly, that I have considerable personal investment in the developments around PES in WA, which (in part) motivated the study. In Chapter 4 (Methodology) I make a case for the qualitative approach this study utilised, where researchers are regarded as central to (and inseparable from) data collection and analysis. I recognise the important role my personal story played in the study. I variously reflect on some of these experiences through the thesis, in particular in the final concluding chapter.

System and Sector representative – Catholic Education. In 2002 I was offered a position as the Catholic Education Office's (CEO) representative on the proposed PES Reference Group. At the time I was Head of HPE at La Salle Catholic College, Perth, WA.

The mandate of the reference group was to set directions for the proposed course, in particular the underlying principles upon which the course was to be developed. Prior to the first meeting a landscape document was produced by CCWA Officers, which outlined 'like' courses both nationally and internationally, and existing courses to be consumed within the new course (prior to PES in 2007 WA offered a non-tertiary entrance course). A team of three writers including two academics and a practicing teacher, developed ideas and drafts, and presented these to the reference group.

Curriculum Officer at the Curriculum Council of WA. In 2004 I was appointed to the position of HPE Moderation and Accreditation Officer at the CCWA, at a time when course content was being refined, an action research phase was initiated and support materials were being developed. I worked closely with my fellow Curriculum Officer who was in charge of the project.

Manager of School Drug Education and Road Aware (SDERA, Perth, WA). In late 2005 I was appointed Manager of SDERA. SDERA is a cross sectorial drug and road safety education organisation, which provides senior school level professional learning and support resources to teachers, SDERA's work related to the HPE K-10 curriculum in WA and another new senior school course, Health Studies.

Examiner and Independent Reviewer on behalf of the CCWA. Having left the CCWA, I continued to be closely involved with the development of the PES course. In 2007 I was appointed a Practical Examiner for the initial external examination and then the following year acted as the Independent Reviewer for the practical examination. During the period 2007 to 2011 I was involved in offering ongoing professional development through the CEO and ACHPER.

Senior Lecturer / Tertiary Educator - Since 2007 I have been a tertiary educator at Edith Cowan University (ECU) and have helped prepare students for the teaching of the PES course. This has involved collaboration with Curriculum Officers at the CCWA, which has allowed for personal renewal regarding course developments from a teacher's perspective.

Professional Association Advocate – ACHPER. As president of ACHPER WA (2008 – 2010) and the ACHPER representative on the Course Advisory Committee (CAC) at the CCWA, I was involved in consultations regarding the direction of the course and the review of annual examination data.

Professional development provider – In the period 2007 to 2012 I personally provided or facilitated the provision of professional development, through ACHPER and ECU. I provided inputs on assessment, curriculum planning and pedagogy.

Researcher - I was a member of the joint ECU and CCWA, Australian Research Council (ARC) Linkage Digital Assessment project that included PES as one of the investigation areas (see Penney et al., 2011). The project specifically considered authentic digital assessment to support high stakes examinations for PES in WA. This work was highly

influential in leading me towards this area of study and in the formation of my research questions. Moreover, the Linkage project is pertinent to this study as it explored a crucial feature of PES implementation in WA, namely assessment practices. A brief introduction to the project follows in the next section of this chapter.

Experienced teacher – I am a teacher with nearly 30 years’ experience teaching in the UK and Australia. In the UK I taught General Certificate of Secondary Education (GCSE) and Advanced Level (A-Level) PES in two schools. This included teaching A-Level PES in my first year out of teachers’ training college. In total I taught A-Level PES for 8 years in the UK. In Australia I have taught Wholly School Assessed PES in WA (the forerunner to the PES course that this research focuses on), and prepared beginning teachers’ to teach PES in WA through my role as a tertiary educator.

In the context of this study, the variety of positions that I have held through my career provided me with a number of different lenses through which to view the course development and enactment period of PES in WA. In concluding this thesis, I reflect back on some of this personal narrative in trying to rationalise how the PES story unfolded. I now introduce the Digital Forms of Assessment project, my involvement in which was the immediate catalyst or spark that led to this study.

The Digital Forms of Assessment Project

In 2007, the Australian Research Council (ARC) supported a three year project proposed by a team of researchers at the Centre for Schooling and Learning Technologies at ECU in partnership with the CCWA to investigate the feasibility of using digital representations of work for authentic and reliable performance assessment in senior secondary school courses (Newhouse et al., 2011). The project was developed in response to an identified need for enhanced assessment of ‘performance’ in the context of several senior secondary courses in WA including – Applied Information Technology, Engineering Studies, Italian Studies, and PES. It specifically sought to address the problem of providing authentic forms of assessment with high levels of reliability that would be capable of being scaled-up for state-wide implementation in a cost effective manner for the purposes of summative assessment in these and other senior secondary courses. The project reflected the view that the nature of established assessments fail to adequately or authentically assess performance elements of many senior secondary courses, with the consequence that teaching and assessment will tend to privilege non-performance outcomes. The project had national and international relevance in that the

challenges faced are by no means unique to WA. Further, in the case of PES, the project related to international calls for greater alignment of course intentions and examination assessment in senior secondary physical education (Thorburn, 2007). It specifically investigated “the feasibility of using digital representation of student work on authentic performance tasks and of establishing online repositories of work for external summative assessment” (Jones, Penney, Newhouse, & Campbell, 2009, p. 218). See page 39 for further details.

It is important to emphasise that the PES component of the ARC project was essentially driven by the desire to examine the ‘integrated theory and practice’ nexus from an assessment perspective and specifically, in an external high stakes practical examination setting. My involvement in this project and the conference papers, journal articles and book chapters emerging from it, was a strong influencing factor in shaping the doctoral research reported in this thesis.

Defining terms – integration/integrated, interrelated, interconnected and interdisciplinary

I pause briefly to clarify some key terminology. Literature in the HPE area has typically used a number of terms, sometimes interchangeably to engage with the broader term of ‘theory and practice’, the most common of these being ‘integration/integrated’, ‘interrelated’, ‘interconnected’ and ‘interdisciplinary’. In the context of this thesis I propose to refer to the following meanings.

The term *integration* when used in the context of the ‘integration of theory and practice’, as per the PES, simply refers to the two dimensional nature of theory (or knowledge) and practice or the integration of theoretical principles and concepts to practical settings (Penney & Kirk, 1998).

The term(s) *interrelated and/or interconnected* are closely associated and refer to, in the context of this study, the three dimensional relationship between Arnold’s (1979) conceptualisation of *learning in, through and about movement*, which will form an important part of this thesis and which is reviewed in chapter 2. Importantly, Arnold (1979) emphasises the inter-connectedness of *in, through and about*, highlighting that; “it should be stressed that these three dimensions of movement are not mutually exclusive. On the contrary they overlap and interrelate with one another” (p. 106). Accordingly, Brown and Penney (2013) point out that:

... thus, while Arnold clearly *differentiated* the dimensions, he retained the emphasis of their *inherent inter-dependency*. They are in his words, "...conceptually discrete but functionally related. Each dimension is not exclusive of the others, but overlaps and merges into them (Arnold, 1979, p. 177)". (Brown & Penney, 2013, p. 53)

Finally, *interdisciplinary*, as Thorburn's (2008) refers, relates to sub-disciplinary or interdisciplinary content, that typically constitutes the 'propositional knowledge' of high stakes and senior school PE. Hence in Arnold terms, this links closely to education 'about' movement, and in the context of PES in WA, perspectives such as biomechanics, human anatomy, exercise physiology, sociology and motor learning.

The rationale and purpose of the study

As has been foreground earlier in this Chapter, PES was one of a number of new senior school courses conceived, designed and introduced in WA in the mid 2000's. The PES course changed the landscape of senior school PE provision in WA and distinctively articulated the intent that the "integration of theory and practice" be "central to studies" in the course (CCWA, 2009, p. 2). As a former teacher, bureaucrat and tertiary educator in WA (as described in the personal narrative earlier in this Chapter), I was of the opinion that the PES course as conceived had ventured from its roots, at least not as I understood them.

Accordingly the rationale for this research was to gain a better understanding of the policy-making and course-design intentions that formed PES, and the representation, expression and contestation of varied discourse subsequently arising in schools amidst what Ball et al. (2012) call "enactment". In particular, the research sought to explore what enactment of the central discourse to integrate theory and practice looked like in schools and gain critical insights into why pedagogical practices emerged in the form that they did in specific school contexts. More specifically the purpose of the study was to:

- a) *Extend the research base in PE and senior secondary schooling relating to the implementation of a new policy, syllabus or course, in particular the translation of syllabus aspirations to pedagogical practice, with a focus on 'theory – prac' linkages.*
- b) *Identify and critically examine "creative and original" (Ball et al., 2012, pp. 2–3) practice in the field of senior school PE, specifically in relation to the notion of 'integrated theory – prac pedagogy', with a view to informing future engagement with curriculum.*

c) *Inform future HPE Learning Area developments and policy debates both internationally and nationally. The study focused on the senior secondary curriculum but can be seen as pertinent to the development and enactment of other major curriculum reforms, including the Australian Curriculum Foundation-Year 10 development.*

As the research addressed a contextually sensitive senior schooling environment, involving multiple layers of influence which were open to interpretation and meaning-making at a range of levels, it was clear that the story of the PES course in WA and the practice emerging in schools, lie with people and in text(s). Therefore the methodology supported the rationale for the study by addressing the people who were involved with the conception of the course; those who designed and wrote it; and teachers who then sought to enact it.

Research questions reflecting the rationale and purpose of the study were designed accordingly informed by the work of Arnold and Bernstein, addressed in Chapter 2 and 3, respectively. The following overview, in conjunction with the background provided in this chapter, outlines how the thesis articulated this rationale.

Overview of thesis

This section outlines the forthcoming chapters as they specifically contribute to the thesis. It should be noted that key concepts, data, findings and comments explored in each section are further summarised at the conclusion of each chapter, except for Chapters 8 to 10.

Chapter 2 begins by locating this study within education literature regarding curriculum change, implementation or *enactment*. It initially examines literature that considers policy implementation within the context of curriculum change, including traditional and contemporary definitions, and views of ‘policy’, ‘practice’ and processes of implementation and enactment. It will establish that multiple factors influence ‘policy in practice’ and provide a backdrop to the study in the context of the initial years of implementation of PES in WA.

The review continues by focusing on developments in Senior School examinable courses both nationally and internationally, before attention turns to literature that considers pedagogical practices in PE, and specifically, integration of theory and practice in examinable courses. Specific attention is paid to Arnold’s (1979) conceptualisation of

learning *in, through and about* movement before the focus turns to pedagogy within the context of examinable PE. In summarising literature in this area, I acknowledge the complex nature of the ‘theory/prac’ terminology and propose a working definition.

Chapter 3 provides a discussion on the conceptual frame within which the study is located. It specifically examines Basil Bernstein’s (1990) *Model of Social Construction of Pedagogic Discourse*, which attempts to explain the relationships between different sites of knowledge production, recontextualisation and reproduction of pedagogic discourse. It starts by providing a detailed explanation of the model, including its accompanying terminology, before making a case for its suitability, in particular the fields of recontextualisation and reproduction, as basis for this study. This includes the research questions that are detailed at the end of this chapter, using Bernstein’s work to organise them.

Chapter 4 begins by addressing the methodological aspects of the research study, providing details and justification for the use of qualitative research methods. The chapter considers the influence of the contemporary educational context and the theoretical perspectives, detailed in Chapter 3, in framing the research questions and the phased research design. Following this the chapter explains the multiple methods and sources employed for data collection, and details the tools of analysis and focuses on how these have been utilised in the interpretation of data to explore the research questions. Finally, the chapter considers relevant ethical issues as related to this study.

Chapter 5 begins to report on data from the research, focusing specifically on key overarching discourse(s) that were central to the design of the PES course in WA. It reflects data arising from Phase One of the study, and was the result of a series of document reviews. Broadly the chapter examines the national and state backdrop to senior school reform in WA, and identifies the overarching discourse(s) that framed the development of the PES course.

Chapter 6 presents a narrative that reflects data from semi-structured interviews and a document review, and tells the story of how the new PES in WA was recontextualised against the backdrop of national and state reform. Specific attention is paid to why there was a particular “central” focus on the “integration of theory and practice” and begins to report on what texts and translations have arisen during enactment.

Chapter 7 focuses on the second phase of the research study and summarises, analyses and discusses findings from a series of case studies that examined how teachers in schools

translated, contextualised and pedagogically arranged the PES course syllabus, examination and support materials during initial implementation. This chapter reports on what ‘integrated theory and practice’ arrangements (relating to curriculum, pedagogy and assessment) have emerged amidst enactment. Analysis and discussion of the case study findings follows in Chapter 8.

Chapter 9 is a theoretically informed discussion of key findings arising across the phases of the study, focusing specifically on the integration of theory and practice. The discussion initially revisits some key foundations to the study, before then addressing a series of discursive points from the data. These will typically focus on key findings and perspectives summarised at the end of Chapters 5, 6 and 7. In particular, the discussion provides a synopsis of the analyses and interpretations drawn from this work, and focuses in on three key areas. Firstly, the discussion addresses data that relates to the first research question, that highlights competing texts in the design and enactment of PES in WA during recontextualisation. Secondly, it considers the impact of a “pragmatic discourse” (Penney and Evans, 1999) its influence on translations and subsequent practice in the case study schools. Thirdly, there is a specific focus on data from the case studies to discuss the nature of ‘integrated theory and practice’ and whether any “creative and original” (Ball et al., 2012) practice can be identified.

Chapter 10 is a review of the research process and findings and reflects on how the PES story has unfolded. Finally, the thesis concludes by making some recommendations for policy, practice and further research.

Summary

This introduction has sought to foreground the context, outline the rationale and purpose, and give a brief insight into the outcome of this study. The study explored the broad notion of policy to practice in the context of the initial years of enactment of PES in WA. In particular, the study sought to provide a better understanding of the relationship between policy-making and course design intentions and the “often contradictory, contrasting and unintended practices” (Penney and Evans, 1999, p. 21) subsequently arising in schools amidst enactment.

In particular, the study focused on the “integration of theory and practice”, which was overtly described in various syllabus iterations (2005, 2006 and 2008) and most recently in 2009 as “central to studies in this course” (CCWA, 2009, p. 2), mindful of the

influences that effect teaching and learning practices in the classroom. It foregrounds the fact that ultimately, for reasons outlined in this thesis, the key overarching discourses that formed PES in WA were ‘lost in translation’. Only ‘modest’ examples of “creative and original” (Ball et al., 2012, p. 2–3) integrated theory and practice were found, and as such, this thesis is a story of the factors and processes shaping this outcome.

This chapter has provided some essential background to the structure of the PES course in WA and outlined the purpose of this research. This was to identify and critically examine “creative and original” practice in the field of senior school physical education, specifically in relation to the notion of ‘integrated theory – prac pedagogy’, with a view to informing future engagement with curriculum development within and beyond the context of senior secondary physical education.

Chapter 2

Literature Review

This literature review is the first of two chapters that provide a frame of reference for the study, and in conjunction with Basil Bernstein's (1990) conceptualisation of Pedagogic Discourse (and in particular the Recontextualising Fields which are detailed in Chapter 3), formed a foundation for the study's research questions.

Literature within educational research, and more specifically the field of HPE, curriculum change, policy implementation and enactment, has variously considered the forces at play at different levels and stages of the change process. This has variously drawn attention to the often contradictory, contrasting, and unintended practices (Ball et al., 2012) subsequently arising in schools amidst 'implementation'. This review specifically locates the study of policy that considers implementation within the context of curriculum change, including traditional and contemporary definitions and views of policy, practice and implementation. Initially literature that considers previous and current approaches to the study of policy and practice towards implementation and curriculum change in education and more specifically HPE is reviewed. The review explores literature that considers the contested nature of implementation, or what Ball et al. (2012) call "enactment", and in particular considers the importance of broader socio-political, educational and school based factors. It explores literature that examines the role of teachers, the influence of local context and "intermediary sites" (Fullan, 1982), and the notion of "implementational slippage" (Bowe, Ball, & Gold, 1992; Penney & Evans, 1999) of policy in practice. It will establish that multiple factors influence the interpretation and enactment of curriculum policy and provide a platform for the study in the context of the initial years of implementation of PES in WA.

In the second half of the chapter, developments in senior secondary examinable courses both nationally and internationally are reviewed, before attention turns to literature that specifically considers integrated pedagogic practices in PE. More broadly the review explores pedagogical arrangements in PE and then specifically examines the integration of conceptual and applied personalised and performance-based teaching and learning (theory and practice) in examinable courses. Particular attention is paid to Arnold's 1979 internationally recognised conceptualisation of *learning in, through and about movement*, which acts as a key reference point in the study. This conceptualisation, in conjunction

with other key literature in the field, provides a basis for a working definition of integrated theory and practice.

Policy, implementation, or ‘enactment’

In their highly influential text *Politics, Policy and Practice in Physical Education*, Penney and Evans (1999) stated that, “education policy reform has come of age in recent years” (p. 18), and refer to the “ground breaking research” of Stephen Ball (1990) to highlight the shortcomings of research into policy pre the mid-1980’s. Ball (1997) essentially draws a line in the sand in the mid-1980’s (typically the Education Reform Bill 1988 in the UK) before which “the prevailing, but normally implicit, view is that policy is something that is ‘done’ to people. As first-order recipients they ‘implement’ policy (Ball, 1999). In supporting work, Penney and Evans (1999) point out that traditionally “in both research and in the workings of organisations, policy and practice have tended to be portrayed as quite distinct phenomena” (p. 19). Within this portrayal they suggest policy is viewed as:

An artefact, commodity or “thing”, made by certain individuals usually in the upper echelons or organisations, systems or states, to be implemented by others in levels or sites “below”, thereby giving rise to practice. (Penney & Evans, 1999, p. 19)

Ozga (2000), similarly points out that there are “those who understand policy in quite straightforward terms as the action of government aimed at securing particular outcomes” (p. 2). Meanwhile Odden (1991) observes that early research viewed policy as a one-way street where policy was made, and subordinates implemented; the direction was ‘downwards’ and “hierarchical” (as cited in Penney & Evans, 1999, p. 19). Essentially policy and implementation were seen as separate.

McLaughlin (1991) challenges the traditional perspectives on policy and subsequent implementation, recognising the variables at play during implementation, stating that “implementers do not always do as told nor do they always act to maximise policy outcomes” (p. 186), moreover, that “at each point in the policy process, a policy is transformed as individuals interpret and respond to it” (p. 189). Ozga (2000) similarly views policy more broadly as “contested terrain” defining policy as a “process rather than a product involving negotiation, contestation or struggle between different groups who may lie outside the formal machinery of official policy making” (p. 2). More recently Ball, Maguire, Braun and Hoskins (2011) acknowledge this, and propose that not all policies are the same, contrasting what they call “imperative/disciplinary” policies with “exhortative/developmental” (p. 612). Imperative/disciplinary policies are those that

produce a “primarily passive policy subject, a ‘technical professional’ whose practice is heavily determined by the requirements of performance and delivery” (p. 612), for example, in an Australian context this might apply to policies associated with the National Assessment Plan for Literacy and Numeracy (NAPLAN) standards agenda. These policies can be referred to as “readerly policies” where “teachers are put under pressure to submit to the disciplines of necessity” (p. 612). In short, “practices are products rather than productions”. Teachers (and students) are “consumers” and the “rationale for policy is extrinsic outcomes (test and examination attainments) as opposed to the intrinsic” (p. 613). In contrast, Ball et al. (2011) also refer to “exhortative/developmental policies” that require “informed professional judgement” and ask leaders and teachers “to bring judgement, originality and passion” to bear upon the policy process. These policies can be referred to as “writerly policies” which are “productions rather than products” (p. 614). For example, Penney (2013) acknowledges that the recent Australian Curriculum texts, for example, are designed to be more ‘writerly’ than ‘readerly’ typically, containing gaps, spaces and significant potential for further development amidst enactment, including, different states and jurisdictions, communities, schools, teachers and students to add context to policy. Similarly, as later chapters illustrate, policy guidelines and course materials for PES in WA left spaces and gaps for teachers to interpret and contextualise course design.

Central to the varied policy positions of Ball et al. (2012), and in particular “exhortative/developmental policies”, is the multi-faceted and multi-dimensional nature of policy and enactment. They refer to policy as “texts” which require encoding and decoding, and suggest that:

Policy is complexly encoded in texts and artefacts and it is decoded (and recoded) in equally complex ways. To talk of decoding and recoding suggests that policy ‘making’ is a process of understanding and translating – which of course it is. Nonetheless, policy making, or rather, enactment is far more subtle and sometimes inchoate than the neat binary of decoding and recoding indicates. (p. 3)

Maguire, Hoskins, Ball and Braun (2011) similarly acknowledge that these texts typically manifest themselves as artefacts, and recognise that “to a great extent policies are not possible without artefacts”. In an educational context “artefacts and practices are fundamental to the co-production of school activities and lessons in particular” (Maguire et al., 2011, p. 603).

The construction of texts and discourse(s) and accompanying and supporting artefacts are important in our understanding of policy and implementation, specifically in undermining the view that, policy is constructed by one person, to be implemented by another. As Luke (1995) states:

It shifts our view from the perspective on text and discourse as a constructed artefact explicably by reference to the essential characteristics that it produces. (p. 8)

Interestingly, Ball et al. (2012) challenge the traditional concept of implementation in the contexts of policy in schools, suggesting it profoundly underestimates the process by which policy is interpreted and translated and subsequent artefacts produced. They argue that:

Policies are not simply ideational or ideological, they are also very material. Policies rarely tell you exactly what to do, they rarely dictate or determine practice, but some more than others narrow the range of creative responses. This is in part because policy texts are typically written in relation to the best of all possible schools, schools that only exist in the fevered imaginations of politicians, civil servants and advisers and in relation to fantastical contexts. These texts cannot simply be *implemented!* They have to be translated from text to action – put ‘into’ practice – in relation to history and to context, with the resources available. (p. 3)

Consequently, Ball et al. (2012) consider implementation to be too simple a construct and propose the term “policy enactment” (p. 6), suggesting that “policy enactment involves creative processes of interpretation and recontextualisation – that is, the translation of texts into action and the abstractions of policy ideas into contextualised practices – and this process involves ‘interpretations of interpretations’” (p. 3).

I will return to the fluid and multi-faceted nature of policy and policy enactment in the next section, but for now I return to some key terms and concepts that are central to this study, namely ‘texts’ and ‘discourse’.

Texts and discourse

The relationship between texts and discourse is highly debated, although the influence and importance of both on the outcome of policy is agreed. Both are significant conceptual tools for this research and the subsequent analysis, accordingly in this section I shall define both before attempting to link the two.

Luke (1995) defines texts “as language in use, any instance of written and spoken language that has coherence and coded meanings” (p. 13), and that texts can have a

“written, spoken, mental and corporeal form” (p. 23). Gale and Densmore (2000) list four senses by which a text can be defined:

First as discernible through the senses; second, as having a sense of meaning that can be attributed to it; third, as being separately identifiable or self contained in one sense, and, in another as reliant on other texts to ascribe sense to it. (p. 15)

It is the attached meaning or “sense” that is essential to this consideration of texts (and discourse). Gale and Densmore (2000) believe that it is in the text that emerges “where the meaning resides”. This notion is supported by Luke (1995), who observes that, “human subjects use texts to make sense of their world and to construct social action and relations required in the labor of everyday life” (p. 13). Similarly Gore (1990) highlights that texts are “social signs” and moreover that “all texts are social and all social experiences provide texts” (p. 105).

Penney and Evans (1999) highlight the importance of individual development and interpretation of text as crucial:

In reading any written text or listening to a spoken text, we produce our own “mental map” of that text, and it is the mental map rather than the original text that will be our reference point in responding to policy. (p. 24)

Texts do not stand alone. “Texts are lodged within other texts” (Luke, 1995, p. 14) and connect and disconnect with each other in “intertextual networks and webs” (Luke, 1995, p. 15) or what Gale and Densmore (2000) refer to as “intertextuality” or textures. This interweaving of texts often takes place as comparison and systematic and unsystematic conceptualisations of understanding emerge (from policy), informed by various sources. Gale and Densmore (2000) contend that it is “discourse that is mobilised during this comparative period” (p. 57).

Discourse has been defined by Maguire et al. (2011) as “social processes; formed within and by wider events, beliefs and ‘epistemes’ to produce commonsense notions and normative ideas” (p. 603), while Thompson (1984) refers to discourse as the “to-ing and fro-ing of ideas, beliefs and values” (p. 15). Mey (1985) believes that discourse is identifiable through “wordings, namings and glossifications” (p. 15), which Foucault (1972) adds, “defines constructs and positions human subjects”. In further explanation Foucault (as cited in Gore, 1990) explains:

In any society, there are manifold relations of power which permeate, characterize and constitute the social body, and these relations of power

cannot themselves be established, consolidated nor implemented without production, accumulation, circulation and functioning of a discourse. (Gore, 1990, p. 105)

Similarly, Maguire et al. (2011) draw on the work of Foucault to suggest that discourse is often multi-layered and clustered, or what he refers to as:

... discursive formations, practices that systematically form the objects of which they speak. In other words, discursive formations are 'big Ds' and are made up of sets of contributing discourses". Typically, these are themes, topics, ideas, constructs and opinions "that speak to wider social processes of schooling". (p. 597)

This Foucauldian approach can often reflect "discursive and power-relations" (Ball et al., 2012, p. 3) of a political and social nature and are inherent in the production, transformation and expression of discourse, as seen in the various texts that are and can be created in the policy and curriculum arenas.

Penney (2013), in the context of the HPE Australian Curriculum, notes that, "part of that complexity involves a focus on context, reflecting that official texts are read within and amidst particular professional, institutional, social, cultural, economic and wider policy contexts" (p. 192). She refers to the historical, political and professional differences at play "resulting in particular discourses and interests attaining a more or less privileged position in preliminary and final drafts" and highlights a situation in which "government and non-government funded, charitable and commercial agencies and organisations, variously associated with interests in education, health, physical activity and/or sport" will prospectively all "contribute in various ways to enactment of HPE in the Australian Curriculum" (Penney, 2013, p. 193).

The relationship between text and discourse is an intimate one. The directional flow is not "one way" (Gale & Densmore, 2000, p. 16), although it is recognised that discourse provides something of a mothership which houses and assists to decode, interpret and produce texts. As Penney and Evans (1999) state, "discourse is a key tool in our exploration and understanding of policies" (p. 23) as it "enables us to examine the values and interests that texts express and promote, and the alternatives that they overlook, marginalise and exclude" (p. 23).

Swabey and Penney (2011) similarly "highlight the analytical power that is presented by a conceptualisation of discourse that encompasses the spoken, unspoken, the possibilities for thought that are enabled and suppressed by texts, and the power-relations that are reflected in the form and content of texts" (p. 70). Moreover and crucially for this study,

“the concept of discourse is invaluable in the analysis and understanding of policy texts and the power-relations underpinning, expressed and promoted through them” (Swabey & Penney, 2011, p. 70).

Work in the context of PE (Kirk, Macdonald, & Tinning, 1997; Penney & Evans, 1999; Swabey & Penney, 2011) has tended to consider the discursive relationships between policy and implementation as one process, accepting the varied texts and discourse at play and the overlapping nature of policy into practice. Penney and Evans (1999) state, “Studies have variously sought to gain a better understanding of the relationship between policy makers and the often contradictory, contrasting and unintended practices subsequently arising in school by implementers” (p. 21).

They continue by inherently linking policy and implementation by defining implementation as the “adaptation, modification and contestation of policy” (Penney & Evans, 1999, p. 21) discourses to texts. More recently in the context of the Australian Curriculum, Penney (2013) highlights that:

The publication of a final version of a new curriculum document is far from the end of “meaning making” and that the process of, “implementation” is destined to be complex and contested and will play out differently in different contexts. (p. 190)

Importantly this contemporary view of policy and implementation acknowledges the positive and dynamic nature of this ‘process’. It is recognition of this shift in thinking that leads Ball et al. (2012), as mentioned previously both in Chapter 1 and earlier in this review, to signal a change in language, referring to “enactment” rather than implementation and highlighting that policy should be “active” promoting “original and creative interpretations” (p. 23), as leaders and in turn teachers in school interpret and then translate policy, considering what it means for them and making it into something practical. In the following sections I explore perspectives on this “active” nature of policy and implementation or “enactment” and the series of overlapping relationships, linkages, contests and settlements

Official policy texts & curriculum ‘settlements’

Typically, from the “to-ing and fro-ing” (Thompson, 1984) of educational discourse come official policy texts, which in turn variously include agreements or concessions or ‘settlements’. Penney (2013) uses the contemporary context of development of the Australian Curriculum in HPE to highlight that both the Australian Curriculum: HPE:

Foundation to Year 10. Draft for Consultation (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2012a) text and the Draft Shape of the Australian Curriculum: HPE (ACARA, 2012b) are examples of official texts, and acknowledges that these settlements, or in this case ‘multiple settlements’ (Luke, Woods, & Weir, 2013), represents settlement between, for example:

... each of the established curricula relating to the HPE learning area in the States and Territories and a vision for HPE in the Australian Curriculum;

... multiple and contrasting agendas for learning in HPE; between discourses variously associated with the established subject areas of health education, physical education, outdoor education and dance;

... visions for the HPE learning area in the years Foundation to Year 10 Australian Curriculum and the various senior syllabi that students may progress to within their own State/Territory; and vision, politics and pragmatics. (Penney, 2013, p. 191)

The Australian Curriculum would be an example of an official policy text, which while open to interpretation on a local level regarding contextual and pedagogic practices, is what it is: the ‘Australian Curriculum’, developed with the intention that its core intent and content would be adhered to across States and Territories. Penney (2013) highlights:

The development of the Australian Curriculum as a whole, and in HPE specifically, can be considered in these terms. All of the official texts produced are undeniably ‘settlements’, some more easily achieved than others, bringing history, politics and professional differences into play, and resulting in particular discourses and interests attaining a more or less privileged position in preliminary and final drafts. (p. 191)

The senior school environment in Australia is undeniably a “Patchwork quilt” (Masters, 2006, p. 56) of official texts. Despite the overarching goals of key National directional documents such as *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (Ministerial Council on Education, Employment, Training and Youth Affairs [MCEETYA], 1999); *The Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA, 2008); Masters (2006) identifies the senior secondary scene across Australia as one of notable variation in certification arrangements, course offerings and their inherent teaching, learning and assessment requirements. Masters (2006) explains that the “current arrangements are the result of locally negotiated ‘settlements’ and reflect different state/territory histories, educational philosophies, local schools of thought, and the influence of particular individuals and committees in each jurisdiction” (p. 56).

Tinning and Fitzclarence (1992), Masters (2006), Penney and Hay (2006), Brown and Penney (2013) and Jones and Penney (2013) have all written about the “picture of diversity” (Masters, 2006, p. 56) that characterises senior secondary schooling and jurisdictional ‘settlements’ that have been established across Australia. They highlight the great variety in State and Territory course offerings, and identify, in Ball et al. (2012) language, “exhortative/developmental policy texts / writerly” features such as titles, assessment practices, accountable measures and content emphasis. Yet they typically also acknowledge the “imperative policy texts”/ “readerly” features and notable similarities, regarding lifelong learning, inclusivity, access and equity for all, national tertiary entrance requirements and flexible post school destinations.

A ‘contested’ space

In this section I engage with policy from the perspective of a “contest” or “policy game” (Swabey & Penney, 2011). I review literature that considers the struggle that can take place in policy design and the emergence of practice.

Swabey and Penney (2011) highlight the views of other educational policy sociology writers (Ball, 1990; Bowe et al., 1992; Gale & Densmore, 2000) in recognising the “contested” nature of policy suggesting that it is “far more than a fixed text and always a complex, contested process in which both individuals and structures are important and influential” (Swabey & Penney, 2011, p. 67). They further explore the proposal that policy and in particular delivery and enactment, is nearly always a struggle between parties and discourse by referring to Ozga (2000) who suggested that policy was always, “struggled over, not delivered, in tablets of stone, to a grateful or quiescent population” (as cited in Swabey & Penney, 2011, p. 67).

In recognising the “contest” and “struggle” around policy Penney and Evans (1999) highlight the need to consider the influence of “mediating organisations and individuals” and “overlapping sites” (p. 21). Morrison (2008) suggests that schools are “dynamical and unpredictable, non-linear organizations operating in unpredictable and changing external environments” (p. 22). Morrison reminds us that “schools both shape and adapt to macro and micro-societal change, organizing themselves, responding to, and shaping their communities and society” (p. 22) and are heavily influenced by a range of contextual agendas both internal and external to schools, including competing policies, designed with different intent. Similarly Dery (1999) highlights the extent to which policies often

arise as by-products of other policies and/or being framed by the constraints and possibilities generated by other policies.

In reference to HPE specifically, Penney (2012) acknowledges that policy in the learning area is “characterised by complexities and tensions” and an “ongoing struggle for control over meaning, consciousness and possibility in physical education” (p. 4). In more recent work, in the context of Australian Curriculum in HPE, Penney (2013) acknowledges that “the ‘meaning making’ will occur within and amidst a complex network” and is “non-linear” (p. 193). Typically then the contest is often conceived as a battle between parties typically policy instigators and makers, education systems, schools, conflicting policy and then finally teachers.

Reid and Thorburn (2011) contend that the contested struggle begins early in the policy-making life cycle, with “policy communities” (p. 301) battling for attention and priority, in what they refer to as a “policy primeval soup” (p. 301). Ideas are “floated, tested, discussed, revised, combined and packaged” (Stout & Stevens, 2000, p. 324), with those receiving serious attention fitting the dominant values of the policy community (Reid & Thorburn, 2011, p. 301).

Kirk, Macdonald and Tinning (1997) refer to Goodson’s (1988) identification of “coalitions of rival interest groups” and the importance of “struggle and contestation” emerging from these groups as “key processes” in the production of policy (Kirk et al., 1997, p. 274). Influential in this process are what Ball et al. (2011) refer to as “policy actors”. They identify “seven types of policy actor or policy positions which are involved in making meaning of and constructing responses to policy through the processes of interpretation and translation”. These are described as “Narrators, Entrepreneurs, Outsiders, Transactors, Enthusiasts, Translators and Receivers” (Ball et al., 2011, p. 626). They acknowledge that these actors are not equal and are “positioned differently and take up different positions in relation to policy, including positions of indifference or avoidance or irrelevance” (p. 625).

In the field of HPE, Swabey and Penney (2011) focus on the importance of “privileged position” (p. 70) and recognise the influence of individuals on policy making. They refer to Penney (2008) who emphasised that:

It requires that the “the who” and “the how” of policy (Gale, 2003) is considered. “Who”, that is, in terms of individuals who can be regarded as “eligible policy actors” (Gale, 2003) for HPE, as well as authoritative

actors that they must seek to influence. (cited in Swabey & Penney, 2011, p. 83)

In the context of PES in WA a number of individuals held “privileged position”, some simply because it was their job to discuss, report, and consult with others. The DoE and other system and sector representatives were broadly “key actors” representing their stakeholders, most notably schools, teachers and students. Others held “privilege position” by way of their perceived expertise, others through the way they articulated themselves. The issue of key actors and privileged position is central to research question 1 (see Chapter 3) and further commentary is explored later in this study.

Reid and Thorburn (2011) recognise the importance of consensus in what they refer to as the policy-making “soup”, but emphasise the significance of “policy entrepreneurs” (p. 301) in influencing outcomes. Similarly, Ball et al. (2011) highlight the existence and importance of such entrepreneurs, commenting:

One of the most intriguing but uncommon policy roles is that of entrepreneurship that is the work of policy advocacy within schools. These are actors who originate or champion and represent particular policies, or principles of integration. They are charismatic people and ‘persuasive personalities’ and forceful agents of change, who are personally invested in and identified with policy ideas and their enactment. They recruit others to their cause to build a critical mass for change and to bring off policy enactments. They rework and recombine aspects of different policies, and draw on disparate ideas, examples of ‘good practice’ and other resources to produce something original, and crucially they are able to translate this on to a set of positions and roles and organisational relationships which ‘enact’ policy. (p. 628)

Swabey and Penney (2011), drawing on the 1992 Australian Senate Inquiry into Physical and Sport Education, identify one such actor (“entrepreneur”) in the form of Jeff Walkley, who was accorded a privileged position in the inquiry, by virtue of strategic placement within the discourse of the time. They note:

Walkley very effectively gained professional and political acceptance as an eligible policy actor for PE. He did so in part by virtue of his existing standing in the field, but more notably, by virtue of the specific discursive resources that he could draw on and his ability to utilise them to connect with broader political and public interests. (Swabey & Penney, 2011, p. 82)

Walkley’s positioning of a specific discourse within a policy design contest, which received broader acceptance and support, is an example of a successful policy lobby, illustrating the power of specific discourse, and to the subsequent design process.

The ‘big picture’

Fullan (1991) and Penney (2008) draw our attention to the importance of the ‘big picture’ and the broader crowded educational landscape (especially in HPE) as fundamental factors in the successful, or not, implementation of policy into practice. Fullan (1991) refers to the “Phemenology of Change” and comments, “Neglect of the phemenology of change – that is, how people actually experience change as distinct from how it might have been intended – is at the heart of the spectacular lack of success of most social reforms” (p. 8).

Furthermore:

It is necessary to build and understand the big picture, because educational change, after all, is a socio-political process. We need to comprehend change as a socio-political process involving all kinds of individuals, classroom, school, local, regional and national factors at work in interactive ways. (p. 8)

Penney (2013) draws on the work of Connelly and Connelly (2013) to explain that curriculum policy is embedded “in a web of state, national and other educational policies and initiatives, as well as being embedded in a plethora of educational organizations and voices with political and policy agendas” (Penney, 2013, p. 194). In earlier work Penney draws on Dery (1999) to recognise that “health and physical education (HPE) can undoubtedly be regarded as what Dery (1999) would term a ‘crowded’, and, I might add, openly contested, policy space, with many interests in and for the subject” (cited in Penney, 2008, p. 35) and that:

Policy developments (and more particularly, boundaries to what is thinkable and will be deemed a legitimate option) will always and inevitably be framed by and in relation to established, “surrounding” and emerging policies and practices; that is, past and current policies within and beyond the immediate policy field. (cited in Penney, 2008, p. 35)

As such, Penney (2008) recognises the importance of understanding the dense contextual spaces, in which policies exist, highlighting:

Thus, in considering policy and curriculum development in HPE, it is essential to acknowledge that the policy landscape and terrain has some clear and notably defining features in terms of the developments possible to either imagine or gain support for. (p. 35)

More recently and in the context of Australian Curriculum developments, Penney (2013) has recognised the contemporary challenges and tensions facing HPE in the formation of both policy and practice in what is a *dense* and *crowded* space. These include discourse(s)

both within education more broadly and from associated learning area fields of influence, notably Sport and Health. Penney (2012) notes:

Physical education remains challenged to effectively mediate (in relation to both policy and practice) the interplay of educational discourses with often more prominent (and simultaneously narrow) discourses of sport and/or health, and the dynamics between policy developments and resource initiatives arising from these multiple policy arenas. (p. 4)

The senior school environment, now and in the past, has similarly faced a unique interplay of often counteracting agendas. MacPhail (2004) in the context of Scotland's Higher Grade Physical Education (HGPE); Green (2005) in regards the General Certificate of Secondary Education and Advanced Level in the UK; Thorburn (2007), Thorburn and Horrell (2012) focusing on Scotland's Higher Still Physical Education (HSPE); Penney et al. (2011) the West Australian Certificate of Education (WACE); and Brown and Penney (2013) the Victorian Certificate of Education Physical Education (VCEPE), have all highlighted tertiary agendas, gender, academic status, assessment practices, national and international political environments as dynamics that particularly feature in this policy arena. In a later section of this review I expand on some of these issues and courses by way of illustrating developments in Senior School Examinable PES courses in Australia and internationally.

Interpretations, translations, intermediary sites' and the role of teachers

Hargreaves (1986) refers to the influence of multiple "intermediary sites" of influence at play in policy making and implementation and recognises that these sites have significant influence on the translations and interpretations of policy, both locally and more broadly. Ball et al. (2011) define interpretation as "an initial reading, a making sense of policy, what does this text mean to us? What do we have to do? Do we have to do anything?" They highlight that "interpretation is mainly rationalistic whereas translation is more realistic, closer to the languages of practice". Accordingly, "translation is an iterative process of making texts and putting those texts into action, literally 'enacting' policy, using tactics, talk, meetings, plans, events, 'learning walks', producing artefacts and borrowing from other schools, from commercial materials and official websites" (Ball et al., 2011, p. 628) or what Hardy and Lingard (2008) refer to as the "logics of practice" of the classroom (p. 66).

The influences at play during translation at various sites are widely debated. Houlihan and Green (2006), and Locke (1992) highlight the role of individuals (writers, teachers,

principals) in shaping change, while Penney and Evans (1999) bring attention to individuals status as an overriding factor, but suggest, “teachers are seen as the last and least important link in the chain of decision making” (p. 19). Clearly the role of individual teachers in this policy discourse is marginalised, and leads to the assertion by Ball et al. (2011) that teacher’s role in policy “meaning making” (Fullan, 2001; Penney, 2013) is “constructed in a network of social practices which are infused with power relations. Teachers do think about, perceive and act towards policy in particular ways in local circumstances but they are not simply autonomous and transparent social subjects” (Ball et al., 2011, p. 628).

Ball (1997) amongst others has directed education research to consider the organic and ever developing nature of these various influences on policy-making and implementation and/or enactment. Ball (1997) refers to the “trajectory perspective” (p. 266) in bringing attention to the way policy evolves, changes and decays over time, while Bowe et al. (1992) stress that when a policy is received it will be read and interpreted and new *hybrid texts* produced, which gives the policy a life far from the initial intention. Penney and Evans (1999) refer to “implementational slippage” (p. 44) that can take place as a policy works its way down, while Fullan (1992) highlights that at multiple levels, policy is translated locally and in context. Kirk and Macdonald (2001) “local context of implementation (LCI)” (p. 558) and Spillane (1999) “zones of enactment” (p. 159) support this and use these terms to refer to “that space where reform initiatives are encountered by the world of practitioners (typically teachers) who notice, construe, construct and operationalise the instructional ideas advocated by reformers” (Spillane, 1999, p. 144). Accordingly, Spillane speculated that the extent to which teachers revise their practice would depend on the characteristics of their zones of enactment.

In their 2001 study of Queensland’s and Victoria’s varying approaches to developments in the National Professional Development Programme, Kirk and Macdonald (2001) comment in relation to the role of teachers in the design process that, “most will not contribute in any substantial way to the construction of the instructional discourse. In these projects, specialist curriculum writers, their line managers and other stakeholders including curriculum researchers, undertook this task” (p. 565). However they suggest that:

Teachers did make an important and invaluable contribution to the reform process through their adaptation of the materials to at their local contexts of implementation. In the processes of making sense of the new instructional discourse and in locating their understanding of HPE within

their schools, in relation to their students, resources and work conditions, the teachers were inevitably involved in transforming and reconstructing the innovative idea embedded in the materials. (p. 565)

The adaption and translation by teachers and other agents during implementation or enactment at various sites are key concepts explored in this study which investigated in the context of the senior school PES in WA, how the critical “inter-relatedness” (Jones et al., 2009, p. 219) and / or “connectivity” (Penney, 2012) of curriculum, pedagogy and assessment in the course was shaped, as specifically related to the central focus to integrate theory and practice.

Attention now turns briefly to consider literature that recognises the over-riding importance of the linkage and synergy between curriculum, pedagogy and assessment in policy making and enactment.

Curriculum, assessment and pedagogy

Penney and Evans (1999), Thorburn (2001; 2008), Thorburn and Collins (2003), Thorburn, Carse, Jess and Atencio (2011), Brown and Penney (2013), and Hay and Penney (2013) all highlight that successfully addressing the nexus, between curriculum, pedagogy and assessment during course design and enactment remains a challenge. In particular, in reference to curriculum developments worldwide they variously point to the complex nature of policy processes in education and specifically the scope for varied and unintended readings of curriculum texts amidst the influence of broader political imperatives and dominant discourses (most notably assessment), which can have a negative effect on pedagogical practice. Hence expressed intentions often fall by the wayside, all be it for small modifications in practice.

Accordingly, Penney (2012) highlights the “critical inter-relatedness of curriculum, pedagogy and assessment” (p. 2), and in later work foregrounds the importance of the collective “dynamic” and “connectivity” (p. 5) between the three, pointing to the potential of this relationship to “extend thinking and practices in physical education beyond current limits of that which is currently accepted, normalised and recognised as possible” (p. 2).

While accepting the importance of a holistic view of curriculum, pedagogy and assessment in realising the potential of the relationship, Hayes (2003) champions pedagogy as the key component in “mobilising” (p. 240) curriculum and assessment, although she acknowledges that a broad ranging skill set needs to be developed and employed. She states:

I find it helpful to conceptualise pedagogy as the means by which the curriculum and assessment are mediated in the classroom. Since the curriculum and therefore assessment reflect a broad range of academic and social outcomes, it follows that teachers need a flexible and highly developed bank of pedagogical skills to mediate these in their classrooms. (p. 241)

The emphasis on *pedagogy*, rather than necessarily assessment, as the key component in the nexus is particularly pertinent to this study, which examined pedagogical practice in the context of a significant curriculum reform that related to a high stakes tertiary entrance environment that has traditionally privileged assessment (and conceptualised assessment as a summative event).

I now turn attention to developments in senior school examinable courses nationally and internationally. Initially, I focus on emerging discourse(s) and developments in two of the earliest courses, specifically the Victorian Certificate of Education (VCE) Senior Secondary Physical Education, which was introduced from 1985, and the Advanced Level (A-Level) Physical Education in England and Wales from 1987. The focus then turns to more contemporary courses that particularly reflect aspirations *similar* to PES in WA to integrate ‘theory / prac’ or *in, through and about* (Arnold, 1979) and the challenges faced in attempts to fulfil these aspirations.

Developments in senior school examinable physical education studies courses in Australia and Globally

The introduction of examinable courses in Physical Education in the senior school years is a relatively recent development globally, in comparison to more traditional and established courses in Science, English and Mathematics. It has been characterised by considerable debate, not the least in the early days questioning about whether PE should have examinable courses at all. Commenting over two decades ago, Fitzclarence and Tinning (1990) highlighted that, “it was not all that long ago that for most teachers, and also most members of society, the idea of physical education as an examinable subject at year 12 (the final year of secondary education) would have seemed ludicrous” (p. 175).

Within the profession early discourse was centred on knowledge (‘content’), assessment, pedagogy, and the role of practical performance. Kirk and Tinning (1990) observe that, “in the process of developing examination courses physical educators have had to address key issues which the profession has debated vigorously” (p. 170). They characterise the development of various examinable courses in Physical Education as “a battle for

ownership and control over what counts as vital educational knowledge, how this is produced, distributed and evaluated” (p. 170).

The “battle” typically centred on whether examinable courses should have a technical and scientific bases or social and interpretative, and the role that physical activity plays within this. More specifically the role performance should play in the courses both in terms of assessment and a context for teaching and learning. Fitzclarence and Tinning (1990) locate the origin of this battle as being the influence of North American sports based courses (of Anatomy and Physiology, Biomechanics and Psycho Motor) and the desire to give the subject status and credibility in the eye of other academic subjects, an issue that MacPhail and Halbert (2005) also identify as a keen motivation in the design of examinable courses. In reference to the VCE, Fitzclarence and Tinning (1990) observe that in Victoria:

To give the subject status and credibility “they desperately wanted” the subject committee created a programme which virtually excluded all physical activity . . . emphasizing in particular knowledge that had an empirical and scientific flavour . . . it was abundantly clear that it was “scientific knowledge” that was most highly valued. (p. 170)

This influence can be strongly seen in early course syllabus and structures in the UK. While the Certificate of Secondary Education (CSE), a non-tertiary entrance certificate course in Physical Education (which was introduced in England in the early 1980s), strongly emphasized performance dimensions, the initial tertiary bound Advanced Level (A-level) did not. In what was one of the earliest UK A-Level courses offered by the Associated Examination Board (AEB), Chief Examiner Bob Davis’ (Davis, Bull, Roscoe, & Roscoe, 1991) approach to course design was unashamedly pragmatic arguing for an initial course that had a strong sports science flavour, with minimal emphasis on practical performance in terms to assessment. While recognising “that the more we know about the performer in action, the performer as a person, and the performer in society, we will be better equipped to study our field in the 1990’s” (Davis et al., 1991, p. 7). Accordingly, the course was designed with status and credibility in the educational market place in mind.

The course had a strong emphasis on ‘theory’ via scientific and technical knowledge from physiology and biomechanics, through psychological dimensions to socio cultural studies. The course was assessed via an external examination worth 70%, and a school based assessment of practical application worth 30%. The practical component included applied and performance features in two sporting contexts. Significantly, approximately

only 7% of the 30% allocated to practical was related to raw performance (how competent a performer the student was).

In later years, with the course and a degree of status and credibility established, and with debate regarding the social construct of course heightening (Flintoff, 1991; Francis, 1994), the A-Level course embraced performance and socio-cultural knowledge and content. Similarly in Victoria in 1988 Fitzclarence and Tinning (1990) report that, “pre 1988 the VCE had gained considerable status for Physical Education because it emphasized theoretical knowledge at the expense of practical knowledge” (p. 180).

However, in a new course design process in 1988, they report that there were concerns with the trend in PE “to define the subject in increasingly narrow and fragmented ways of knowledge drawn primarily from the biological/physical sciences” (Fitzclarence & Tinning, 1990, p. 181). The response was to design a course which balanced biological/physical sciences, socio-cultural understandings and physical activity contexts alongside each other incorporating four units which clearly articulated the change in emphasis, namely Physical Activity and Lifestyle, Analyzing Physical Activity, Perspectives on Fitness, and Physical Activity: A biosocial Analysis. Despite this it is worth noting that assessment requirements in relation to the VCE course continued to draw a distinction between ‘theory’ and ‘practical’ knowledge.

Penney and Hay (2006) acknowledge the contemporary global move to “multidisciplinary” courses which “extend knowledge and understanding through practical learning experiences” (p. 2). They also highlight the challenges faced by curriculum developers and teachers developing courses, syllabus, examinations and pedagogical practices to support this.

The Higher Grade Physical Education (HGPE) in Scotland and the Board of Senior Secondary Schools Studies (BSSSS) Senior Physical Education in Queensland, Australia, broadly reflected this desire to “extend knowledge and understanding through practical learning experiences and to promote pedagogical practices that challenge a ‘theory / prac’ dichotomy” (Penney & Hay, 2006) and hence have course design aspirations similar to PES in WA to integrate “theory / prac”. They also represent two courses that have received considerable attention from a number of writers (MacPhail, 2007; Penney & Hay, 2006; Penney et al., 2011; Thorburn, 2007), work and insights that will inform this proposed study. These two senior school courses are reviewed before I turn attention to

pedagogical practice in PE and specifically literature that considers ‘integrated’ and ‘interrelated’ practices in PE.

Higher Grade PE (HGPE) in Scotland, UK

The Higher Grade Physical Education (HGPE) is a high-stakes examination award for 16–18 year-old students that is characterized by a practical experiential rationale which aims to improve levels of practical performance and analytical understanding. The integrated curriculum link is reflected in the assessment weightings for practical performance (40%) and analytical abilities (60%). The HGPE was introduced in 1994 although examination courses in various guises began in Scotland in 1988. The HGPE is the Scottish ‘equivalent’ of the Advanced or ‘A’ level examination in PE in England and Wales. MacPhail (2004, 2007) and Thorburn and Collins (2006) report that initially the four *key features* of the HGPE course were performance, analysis of performance, investigation of performance and personal and social development, perhaps reflecting the shift from a prominently science based platform with a limited focus on performance and physical activity, of the other courses in the mid 80’s to a more integrated multi-dimensional course, similar in conception to PES in WA, a fact reflected in marks allocations and certification procedures within the HGPE.

Significantly only the first three features were assessed externally for certification. Contrary to PES in WA, which currently provides the only externally examined Practical Performance assessment in Australia, performance was assessed internally and had a weighting of 40% towards the final grade. Meanwhile analysis of performance and investigation of performance were assessed externally with a weighting of 40% and 20%, respectively. Two activities contributed to the assessment of Performance and pupils were therefore to study a minimum of two practical activities. Analysis of Performance was subdivided into four main areas that were Structures and Strategies, Preparation of the Body, Skills and Techniques, and Appreciation of Action. From the four areas, schools selected three areas they considered to be most appropriate to the activities chosen for Performance. The Investigation of Performance required the pupils to produce an Investigation report on a specific aspect of performance in one or more physical activities.

The integrated nature of the course was reinforced in the recording of an award. No award was possible unless the assessment requirements for all three *key features* were met. Consequently, if students scored exceptionally well in Performance but failed either the

Analysis of Performance examination or the Investigation of Performance, they failed to gain any acknowledgement for what they had scored well in.

The format of HGPE changed in 2000 with the launch of *Higher Still*, which brought together subject qualifications into one multi-level framework (MacPhail, 2007) for pupils in years 5 and 6 of secondary education (17 to 18 years of age). Changes from the original HGPE syllabus included the weightings of the components, the loss of the Investigation of Performance and the terminology of the four main areas of Analysis of Performance. The assessment of HSPE had a minimum 50% weighting towards written forms of assessment and the weighting for Performance moved to 50% in HSPE from 40% in HGPE. Significantly however, as Thorburn (2008) reports, since the first version of HSPE began in 1999 it has proved difficult for students to demonstrate as high a level of analytical competence as practical performance competence. This is an issue that has proved challenging in WA also and has occupied Curriculum Officers and Chief Examiners, as they deal with the relatively low mean state average for the PES external written examinations (when compared to the practical performance mean). This has typically related to poor student performance in the short and extended answer questions in the written paper, which require higher order and generally complex understandings of syllabus content.

Board of Senior Secondary Schools Studies (BSSSS) Senior PE in Queensland, Australia

Introduced initially in 1976 the BSSSS (later to become the Queensland Studies Authority in 2002 and then the Queensland Curriculum and Assessment Authority in 2014) Senior PE experienced a significant reshaping in the 1990's with the development of a new syllabus, which comprised of a trial phase (and version of the syllabus) in 1994 – 1995, then a pilot phase (and pilot version of the syllabus) in 1996-1997, prior to general implementation in 1998. The course has since undergone revisions and is, at the time of writing, in the process of a further revision.

The BSSSS Senior PE is based on the principles of Arnold (1979), who proposed that PE should focus on more than performance alone and be integrated with various areas of knowledge and understanding, “specifically, learning should occur ‘about’, ‘through’ and ‘in’ PE” (Thorburn, 2007). Penney and Hay (2006) provide a creative breakdown of the BSSSS Senior PE course in their 2006 paper, *Inclusivity and Senior Physical Education Studies courses in Australia. Chantel and Matt move to Western Australia*. In a paper that

simulates a conversation between two fictional students undertaking senior school PES courses in Queensland and WA, authors Penney and Hay provide some specific course detail regarding the BSSSS Senior PE course:

Senior PE is an “authority” subject which means that the results you achieve in this course will affect your tertiary entrance score (Overall Position – OP). Senior PE is a very popular subject in Queensland. 10,582 students in elected to begin the course in 2005. (p. 7)

Qld Senior PE is a performance-based subject in which the quality of performances in physical activities, as well as the quality of the thinking (“cognitive engagement”) in, and in relation to, those physical contexts, is valued. The intention of Senior PE in Queensland is for students to develop as “intelligent performers”. In the syllabus, intelligent performance is described as ...rational and creative thought at a high level of cognitive functioning and engages students, not only as performers but also as analysts, planners and critics in, about and through physical activity. It is this intelligent performance that distinguishes students as being physically educated, which shapes the global aims of Physical Education. (Queensland Studies Authority [QSA], 2004, p. 1, as cited in Penney & Hay, 2006, p. 8)

The BSSSS course’s aspirations, design and supporting documentation identify physical activity very much as a context for learning and for demonstrating the characteristics of a physically educated person. As such physical activity serves both as a source of content and as a medium for learning. Hence the interrelationship “directly implies that learning in Physical Education cannot be separated from engagement in physical activity” (Penney & Hay, 2006, p. 10).

Teachers are responsible for the design of their courses within guidance and advice provided within the guidelines established by the QSA. Teachers choose the physical activities that they will use to illustrate content and lead performance based on a selection of four physical activities from at least three of the four categories of activities listed in the syllabus, namely “performance; aesthetic; direct interceptive; and indirect interceptive activities” (QSA, 2004, p. 1, as cited in Penney & Hay, 2006, p. 8). These support the three content focus areas which have to be addressed in the course: “Focus area A – Learning physical skills (Motor learning and control; sport and exercise psychology; biomechanics); Focus area B – Process and effects of training and exercise; Focus area C – Sport, physical activity and exercise in the context of Australian society” (QSA, 2004, p. 1, as cited in Penney & Hay, 2006, p. 8).

In commenting on the nature of course design within the guidelines and constraints referred to above, Penney and Hay highlight the aspects of independence and autonomy

provided to the teacher by the BSSSS in moulding and developing curriculum and assessment protocols to deliver the course and ensure rigour. In talking to the fictitious *Matt*, he explained:

Your teachers will decide which focus area content they will present with each of the physical activities that you undertake. More than one focus area may be addressed in the context of an activity, however this is not required or promoted, as it is the depth of engagement with one focus area and a physical activity that is important in relation to your success in the course. Each of the four chosen physical activities is studied twice over the two years. For example, some of the common physical activities that schools choose are touch football, volleyball, and athletics. (Penney & Hay, 2006, p, 8)

In the early years of implementation approaches to curriculum design, assessment and the teaching and learning of the BSSSS course provided some significant challenges. Penney and Hay note that “for some teachers transferring from reproductive (direct) teaching styles to productive (indirect) problem solving styles was difficult”. However, they highlight that while “many teachers felt comfortable in using familiar pedagogy practices when teaching new content”, more open-ended teaching strategies were “developed once the security provided by an improved grasp of content detail had occurred” (Penney & Hay, 2006, p. 168).

As previously stated the HGPE in Scotland and the BSSSS Senior PE in Queensland, Australia, broadly reflect similar course aspirations to PES in WA through the desire to “extend knowledge and understanding through practical learning experiences and to promote pedagogical practices that challenge a ‘theory / prac’ dichotomy” (Penney & Hay, 2006) and hence integrate ‘theory / prac’.

Integrated and interrelated practice in physical education

Earlier I outlined that the ultimate aim of this study was to identify *creative and original* practice in the field of senior school PE, and specifically ‘theory – prac’ pedagogy, which was overtly described in various syllabus iterations (2005, 2006 and 2008) and most recently in 2009 as “central to studies in this course” (CCWA, 2009, p. 2). Accordingly, in the next section, literature that informed Phase two of the study and which addresses pedagogical issues in PE such as integrated and interrelated practices in senior school courses is re reviewed.

Initially I make some introductory comments to set the scene for this section of the review before turning attention specifically to pedagogical practice in PE that links knowledge

and understanding to human movement and performance. Importantly I then move to focus on the integration of conceptual and applied or performance-based experiential learning in teaching, and Arnold's 1979 conceptualisation of *learning in, through and about movement*. This conceptualisation in conjunction with other key literature addressed in this review provides the basis for a working definition from which I later consider the degree to which this central course intention is evident in practice, and identify examples of "creative and original" integrated theory and practice in schools teaching PES in WA.

Pedagogy in PE

Casey, Dyson and Campbell (2009) in the context of examinable PE note that "academics in PE have long voiced their concerns at the persistence of classroom practitioners' to use out-dated instructional approaches that are predominantly teacher-directed and technique-centred" (p. 407) or as Thorburn and Collins (2003) allude, simply resort to worksheets and "talk and chalk" approaches in the classroom (p. 191). Similarly, Bowes (2010) highlights that in New Zealand senior school PE lessons in many classrooms appear to be dominated by note taking from theoretical power point presentations and completing workbooks.

Significantly, Penney and Kirk (1998), Putnam (1993), Thorburn (2007) and Brown and Penney (2016) all noted that teachers typically felt comfortable in using familiar pedagogy practices but were typically slow to evolve, or adapt existing pedagogies for examinable courses, prompting Thorburn (2007) to comment "PE is being studied but only occasionally experienced" (p. 179). More recently Casey and O'Donovan (2013) reported that in the context of PES teachers have "dismissed the pedagogical approaches that worked well in practical physical education lessons and instead embraced a traditional approach to teaching pupils in classrooms" (p. 8).

Penney and Kirk (1998) have indicated that it is the concept of the integration of theoretical principles and concepts to practical settings, common in the majority of contemporary examinable PE courses, and "central" to PES in WA, that has proved most problematic pedagogically. This is an issue supported by Thorburn (2007) who in the context of the HSPE in Scotland, highlights that:

In some content areas, teachers described connections as natural and obvious and in some other areas this was less apparent resulting in the experiential benefits of integrated teaching and learning being enacted in

contrived practical settings or explored within separate theory and practice environments. (p. 167)

Collectively, it is a series of concerns that has led many in the field to highlight the need for a shift in thinking, both in terms of pedagogy and assessment, emphasising that it is not as easy as simply “moving in from the ‘cold’ of gymnasium and playing field and into the ‘warmth’ of the classroom” (Casey & O’Donovan, 2013, p. 8).

The potential of PE to provide a cognitive ‘hit’ through movement

Various authors have linked the potential for PE to either inherently, or by way of a by-product, provide a cognitive *hit* to learning through movement and practical experiences. Teaching Games for Understanding (TGfU) (Bunker & Thorpe, 1982; Thorpe, Bunker, & Almond, 1986), Game Sense (Den Dyun, 1996, 1997; Pill 2007), and the Tactical Games Approach (Griffin, Mitchell, & Oslin, 1997; Mitchell, Oslin, & Griffin, 2006) are all examples of pedagogy that provides frameworks for the linkage of knowledge and understanding to practical settings, typically game play. By way of an example I briefly focus on TGfU.

TGfU was developed to address the perceived deficiencies in the traditional approach to physical education games and sport teaching (Bunker & Thorpe, 1982; Thorpe et al., 1986). TGfU diverges from the traditional PE method by placing game appreciation and tactical understanding at the forefront of learning. TGfU articulates an alternative teaching construct for teaching in physical education presenting sport learning as context for the development of both physical and cognitive capabilities. Various authors (Siedentop, 1994; Mandigo & Holt, 2004; Siedentop, Hastie, & Van der Mars, 2004) have addressed components of this approach that identify key cognitive gains including knowledge and understanding that enables students to; tactically understand a game and strategically read a game; appreciate tactical similarities in games which are structurally similar; transfer game knowledge between sports; and value the rules, rituals, traditions and socio cultural significance of sports, and distinguish between good and bad practices. TGfU has been purposefully applied to sport teaching in PE as a tactical approach (Griffin et al., 1997; Mitchell et al., 2006). This iteration of TGfU emphasises sport learning as problem solving by foregrounding tactical problems in sport lesson planning and by describing a framework of tactical complexity capturing scoring, preventing scoring and restarting play components.

Adapting this known pedagogical framework for examinable PE, Penney et al. (2011) used the broad framework of *games for understanding* or *tactical approach* to underpin the design of a digitally based assessment task. It might also be further modified for the basis of a super task and ongoing teaching and learning towards greater integration of knowledge and practice, and the sub-disciplines contained within a syllabus and curriculum. The task comprised four inter-related parts (described below). Parts 1 and 4 were undertaken in a computer laboratory or classroom with students using laptop computers. Parts 2 and 3 occurred in a practical performance setting appropriate to the specific physical activity (i.e. a swimming pool, gym, oval) and were undertaken consecutively within a single, practical setting.

Developing a response to a tactical problem in a chosen physical activity context: This session was conducted with each student using a computer to respond to a set of questions about the *problem* set for their activity context (e.g. swimming, soccer). Students were presented with a tactical problem relating to the activity and required to articulate a prospective response to that problem, and an alternative response taking account of changed performance conditions (for example, in the tactics employed by the opposition, or the position from which a set play would commence). Structured questions served to probe students' knowledge and understanding of strategies and tactics.

Performance of skills in the physical activity: Four skills relevant to the tactical problem set were identified for each physical activity. Drills were specified for performance of each skill, with feed and set-up conditions detailed. Each student completed each drill three times. All performances were video recorded.

Application of skills in a game/competitive performance context: This session provided each student with two opportunities to engage practically with the tactical problem introduced in part 1. This part involved short periods of game play or performance in a modified game or competition context, designed to maintain the authenticity of the situation while maximising the opportunity for students to demonstrate skills, knowledge and understanding relevant to the task. All performances were again digitally recorded.

Student reflection: In this final session each student used a computer to view videos of their performances from parts 2 and 3 and respond to reflective and evaluative questions about their performance.

Across literature in the field creative adaption of known pedagogies for examinable PE courses such as this appear few and far between, prompting Casey and O'Donovan (2013)

to comment that physical educators have “dismissed the pedagogical approaches that worked well in practical physical education lessons and instead embraced a traditional approach to teaching pupils in classrooms” (p. 17).

Kirk et al. (2002), Macdonald and Brooker (1997), Hay and Penney (2009), Brown and Penney (2013, 2016) and Brown (2012) all recognise Arnold’s 1979 and 1988 work as continuing to be a useful reference point for “situating physical activity as a site for learning and assessment, and promoting integrated thinking about content and contexts of learning in PE” (Hay & Penney, 2009, p. 393) and pedagogy to support it. While recent commentaries (Brown, 2012; Pill & Stolz, 2015; Stolz & Thorburn, 2015) have cast doubt over policy makers, academics and teachers understanding of Arnold’s conceptualisation, Brown and Penney (2013) note that many of the curriculum developments in senior PE and much of the associated research have made direct or indirect reference to Arnold’s (1979) conceptualisation of *learning in, through and about movement*. In particular senior school PE courses in Victoria and Queensland and the work of Thorburn (2007), Thorburn and Collins (2003) and Brown (2012) have used Arnold’s (1979) dimension of movement to “underpin” (p. 2), and understand courses, and teaching and learning practices that extend the integration of theoretical and practical components of content. In the next section I consider Arnold’s (1979) conceptualisation of *learning in, through and about movement*, before arguing that ‘interrelated and integrated’ components of this conceptualisation gives a good foundation from which to engage with *theory and practice*.

Learning ‘in, through and about movement’

Brown (2012) points out that components of Arnold’s conceptualisation “namely education ‘about and through’ movement appear to resonate with physical educators” (p. 2) or as Stoltz and Thorburn (2015) refer “gold standard” (p. 1) in PE. As such it has been considered an important conceptualisation to physical educators, in line with commentary on the ‘academicisation’ of the discipline (Green, 2005). However, as noted earlier, the move to science based senior school content and the trend to over theorise PES courses at the expense of practical experiences has led to a re – examination of the genesis of these course rationales and a realisation that, as Thorburn (2008) comments, PES without the ‘physical’ is “as foreign as music education without sound” (p. 265).

Arnold’s work, drawing on the philosophy known as phenomenology (an important link pointed out recently by Stolz & Thorburn, 2015), focused on the concept of meaning as

related to the three dimensions of movement – *in, through and about*. Education *in* movement is primarily concerned with movement and physical activity, and allows the individual to “actualize his self in a set of *distinctive and bodily orientated contexts* and thereby allow him to learn a great deal about himself and the world in which he lives” (Arnold, 1979, p. 176). The dimension highlights the participatory perspective of the individual. Brown and Penney (2013) summarise learning *in* as having “experiential outcomes, where students directly acquire knowledge, understandings and skills as a result of thoughtful participation in physical activity (e.g. applying tactics and strategies in a game, appraising the physical capacities and requirements of an activity)” (Brown & Penney, 2012, p. 5). Similarly, Thorburn (2007) explains that learning *in* is where students acquire understandings as a result of learning the prerequisite skills for effective participation in different games and sports (p. 168). As Arnold (1979) writes:

It will be seen that although “in” movement is largely to do with “knowing how” to engage in physical activities and in having a direct and lived-body acquaintance of them, the mover who is the author of his movement actions can enrich and bring greater understanding to what he does by a knowledge of “what is the case”, just as he can help realise them by an informed appreciation of appropriate means. (p. 178)

Education *through* aims to develop extrinsic learning objectives, and is “where students indirectly acquire understandings, capacities and attitudes as a result of studying and participating in physical activity” (Arnold, 1988, p. 176). These include physical, emotional, intellectual and social aspects of an individual *through* participation in selected and directed physical activities. Brown (2012) describes this dimension as using:

... the activity/movement in physical education as a way of meeting another aim/goal or objective, as a means to an end. Education “through” movement assists the fulfilment of certain purposes and is not related to any intrinsic values, but is oriented to those values of extrinsic or functionalist values. (p. 6)

Meanwhile, Thorburn (2007) explains that, “learning ‘through’ is where students acquire understandings as a result of active participation in different activities, for example, understandings about fitness, values, attitudes, and aesthetic appreciation” (p. 168).

Brown (2012) refers to education *about* movement as being concerned with rational or propositional enquiry. In this way, it is to be conceived of as an activity that studies human movement from multiple perspectives. These perspectives include “understanding human movement in anatomical, physiological, sociological or philosophical ways” (Brown, 2012, p. 5). Arnold (1979) proposes education *about* movement will be analytical, critical

and evaluative. Examples of education *about* movement include: understanding heart rate thresholds for improving cardiovascular endurance, examining the impact of gender stereotypes on participation in physical activity and planning psychological strategies for pre-match preparation.

Despite the general acceptance of Arnold's dimensions of movement as an appropriate conceptualisation for PE and more specifically a broad range of senior school courses, there remain concerns about the quality of teaching approaches in examinable PE (Thorburn & Collins, 2003). This fact is highlighted by Kirk et al. (2002) who comments that a "challenge for physical educationalists is to address the ways in which teaching and assessment can better integrate. Such integration might help reduce tensions within the teaching profession where concerns exist about the preference for propositional rather than practical knowledge" (p. 208). This is supported by Thorburn (2010) who argued that the integration of teaching and learning approaches in physical education have often been problematic, in particular teachers trying to understand how to integrate content knowledge in practical experiential learning environments that are both personally meaningful and which fulfil assessment protocols.

In the next section I focus on literature that considers the connection or interrelated and integrated components of this conceptualisation and argue that this gives a good foundation from which to engage with 'integrated theory and practice'.

Integrating sub-disciplinary knowledge to practice

Importantly, in the context of this study which focuses on senior secondary PE, Arnold (1979) emphasised the importance of the inter-connectedness of the three dimensions, recognising that while "conceptually discrete but functionally related, each dimension is not exclusive of the others, but overlaps and merges into them" (Arnold, 1979, p. 177). Similarly, Brown and Penney (2012), and Hay and Penney (2009) emphasise that the three dimensions of *in, through and about* provide a rationale for an *integrated* approach to teaching and learning and assessment which is the basis for a number of senior school courses, including for example the BSSSS Senior Physical Education syllabus, where teachers are required to:

... provide learning experiences and assessment tasks 'that allow students not only to understand the relationships between physical activity and the complexity of factors underlying performance, but also to experience such relationships themselves (that is, the close *integration* of learning experiences in, about and through physical activity). (QSA, 2004, p. 2)

Kirk et al. (2002) in their UK based course textbook *A' Level Physical Education – The Reflective Performer*, identify a number of key educational principles that are key to the study of PE at this level. These include “Integration of Knowledge”, “Making Knowledge Personal” and links between sub-disciplines through “Synoptic” study. They highlight the link to Arnold’s *in through and about* in referring to integration as, “linking the learning of subject matter such as physiology or history with learning physical activities such as badminton or swimming” (Kirk et al., 2002, p. 10). They also again link to Arnold’s three dimensions to explain the importance of integrating *in, through and about*. Significantly, Kirk et al. link learning in a course such as A’ level PE to “Personalisation” and the extent to which knowledge and skill can be personalised. Emphasis is placed on the importance of making meaning to individuals through the “physical challenges” and “real life experiences” they encounter and the interrelationships between them and knowledge. Finally, they stress the importance of “drawing on knowledge and understanding from a combination of sub-disciplines to help develop more comprehensive understandings” (Kirk et al., 2002, p. 11) through “synoptic” study, warning that “if you rely on subject matter from only one sub-discipline you risk developing only partial understanding” (Kirk et al., 2002, p. 11).

The Welsh Joint Education Committee (WJEC) PE (2009) took this concept forward, highlighting in its Rationale that the course should “allow candidates to select practical activities that take account of previous achievement, personal interest, and individual levels of motivation; and enable the teaching of the theory elements of the course to arise from and during the practical activities” (WJEC/CBAC GCSE, 2009, p. 3).

It stressed the integration and interrelationship between personal real life experiences and knowledge in delivering the course specification, stating that the emphasis should be on the integration of theory and practice, and:

Wherever possible, every effort should be made to apply the theoretical aspects in a practical manner. Candidates should be encouraged to read newspapers, magazines, internet articles and to keep abreast of current issues. They should be encouraged to read a variety of texts. The focus of the course should be on considering issues relevant to contemporary physical education, such as concerns about health and obesity as well as, for example, preparation for performing. The dual focus of health/well-being as well as performing, should be stressed throughout the course and when discussing theoretical aspects. (WJEC/CBAC GCSE, 2009, p. 3)

The focus on engagement, “getting involved” (Casey & O’Donovan, 2013, p. 13) and experiential learning, and perceived linkages to greater understandings through integrated

learning, is pursued by Hay and Penney (2009), Thorburn (2008), Brown and Payne (2008) and Jones and Penney (2015). They broadly advocate for an *integrated approach* to teaching, learning and assessment in senior school PE in which the learning of the “sub-discipline content occurs through its application in the movement context and to the movement context” (Hay & Penney, 2009, p. 393).

Linking theory and practice to *phenomenology*

Thorburn (2008) refers to this sub-discipline or interdisciplinary content as the “propositional knowledge” of PE and makes a strong case for developing understandings of this through experiential learning, linking theory and practice to the concept of phenomenology, which is acknowledged as one of a number of the influences on Arnold’s three dimensions. Thorburn (2008) defines *phenomenology* as:

... “the study of structures of consciousness as experienced from the first-person point of view” (Smith, 2005, p. 1). The essence of an experience is its intentionality: the meaning of events, the meaning of embodied action including kinaesthetic awareness of one’s movements and the importance of sensations as they are experienced by the body. (p. 265)

This is supported by Brown and Payne (2009) who describe phenomenology as an approach to studying the “nature and structure of experience as it is ‘lived’ and is understood primarily from the subjective position through which meaning and meaning-making of agents as actors is made sense of” (p. 422). In an extensive review of phenomenology literature in 2009, Brown and Payne highlight the potential for meaning-making through movement experiences, referring to Metheny (1968) and Kretchmar (2000). Metheny (1968) highlights the “meanings associated with lived experience in that connotations of movement tell us complex and interesting stories about the performer of the movement, physical activity or exercise” (as cited in Brown & Payne, 2009, p. 427). Meanwhile Kretchmar (2000) uses “meaning as transport” metaphors to elaborate how meaningful experiences can occur through practical examples “when one can be moved *away* from the literal, where one can be carried toward or where one can be moved along” (p. 427).

Thorburn (2008) draws on the work of Husserl (1931) amongst others (Merleau-Ponty, 1962; Heidigger, 1962). Thorburn highlights that for Husserl phenomenology contained the potential for “experiences to provide the basis for a rigorous methodology, which could lead to specific forms of experiences (thoughts, perceptions, feelings) linking to associated subject knowledge meanings to achieve learning goals” (p. 265). Moreover,

the experiences enable “the language links between experiences and knowledge to become increasingly sophisticated and refined. Supported by suitably framed pedagogical approaches this could effectively enable personal experiences to become integrated with subject knowledge imperatives” (p. 265).

Not a one-way street – ‘theory/prac’, ‘prac/theory’, and ‘prac/theory/prac’

It should also be acknowledged that the process of integrated teaching, linking propositional knowledge to experiential learning, is not one way (theory in / through practice or ‘theory/prac’). Rather that at different stages of the development of understanding students need to cross reference and interrelate concepts, moving from *experience and understanding* to more ‘Bloom-like’ features such as *use, application and review* of the knowledge. Hay and Penney (2009) acknowledge that integrated application demands “higher order cognitive processes such as application, analysis, synthesis and evaluation (Bloom, 1956) and knowledge utilization, metacognition and self-system thinking across learning domains (Marzano, 2001), thereby optimizing the cognitive demands and expectations of learning in PE” (p. 394). Similarly, Thorburn (2007) comments that, “within such integrated curriculum students acquire (gather, recall, comprehend and sort information), apply (interpret and analyse information) and evaluate (hypothesise, predict and justify)” (p. 168). As such *theory/prac* (where the development of understanding *about* starts with knowledge, which is then explored and/or illustrated *in and through* practical contexts), *prac/theory* (where the development of understanding starts with ‘experience’ through engagement *in* practical context) and *prac/theory/prac* are all terms that should be acknowledged.

Thorburn (2008) is critical of the quality of integrated teaching, learning and assessment. In a study conducted in Scotland, Thorburn (2008) found that “classrooms sessions were lacking in reality” (p. 263) and that attempts to integrate high levels of practical activity with high levels of propositional knowledge learning, has proved problematic” (p. 264). Consequently:

There has been a relative lack of forethought about how curriculum could meet wider societal expectations of PE, as well the aspirations of teachers and students, through coherently merging experiential learning with subject knowledge imperatives in ways which lead to authentic rather than contrived assessments of practical performance and subject knowledge occurring. (p. 264)

Similarly Brown and Penney (2012, 2016) acknowledge that “internationally the development of senior school physical education courses is recognised as presenting

physical education with fundamental dilemmas and challenges relating to the nexus between propositional knowledge and experiential learning” and that recent commentaries have reaffirmed that “successfully addressing the nexus remains a challenge” (Brown & Penney, 2012, p. 27).

Defining integrated theory and practice

In summarising literature in the area of *Integrated and Interrelated* practices in HPE, and in the context of this study, I acknowledge the complex nature of the theory and practice terminology and propose to define integrated theory and practice as; an understanding *about* theoretical knowledge and principles, “developed and utilised” (Hay & Penney, 2009), *in and through* authentic practical activities, contexts and situations. As such theory and practice are integrated and interrelated.

Finally, I offer the following matrix (see Table 1), which represents a synopsis of terminology and literature offered in this chapter. This matrix, in tandem with the definition above, is used in Chapter 8 and 9 to review potential “creative and original” integrated theory and practice pedagogy, emerging from enactment of PES in WA.

Table 1

Integrated Theory and Practice Matrix

Definition	Author
<i>Integrated</i>	
The two dimensional nature of theory (or knowledge) and practice	Penney and Kirk (1998)
<i>Interrelated / interconnected</i>	
The three dimensional relationship between Arnold (1979) of learning “in, through and about” movement	Arnold (1979)
“They overlap and interrelate with one another / conceptually discrete but functionally related”	Arnold (1979)
“Inherent inter-dependency”	Penney and Brown (2013)
<i>Interdisciplinary</i>	
Sub-disciplinary content	Thorburn (2008)
Linked closely to education ‘about’ movement	Arnold (1977)
<i>Education ‘in’ movement</i>	
Primarily concerned with movement and physical activity, highlighting the participatory perspective of the individual	Arnold (1979)
Experiential outcomes, where students directly acquire knowledge, understandings and skills as a result of thoughtful participation in physical activity	Brown and Penney (2012)
<i>Education “through” movement</i>	
Develops extrinsic learning objectives, such as the physical, emotional, intellectual and social aspects of an individual.	Arnold (1979)
Using “the activity/movement in physical education as a way of meeting another aim/goal or objective, as a means to an end”.	Brown and Penney (2012)
<i>Education “about” movement</i>	
Concerned with rational or propositional enquiry	Arnold (1979)
“Understanding human movement in anatomical, physiological, sociological or philosophical ways”	Brown (2012)

Summary

This chapter has focused on literature that provides a frame of reference for the study. It is organised to reflect the phases of the research, and has centred essentially on policy literature, developments in senior school PE courses, and finally integrated and interrelated practice in PE, and specifically the PES courses.

The review acknowledged the traditional view of policy as “an artefact, commodity or “thing”, made by certain individuals usually in the upper echelons or organisations, systems or states, to be implemented by others in levels or sites “below”, thereby giving rise to practice (Penney & Evans, 1999). It explored perspectives that propose that not all policies are the same (Ball et al., 2012) and the addressed the broader *contested* nature of policy in practice, in particular the importance of broader socio-political, educational and school based factors. The chapter considered the notion of text and discourse and explored literature that challenges the concept of implementation, most notably the concept of “enactment” (Ball et al., 2012). It examined the role of various key agents, context, “intermediary sites” (Fullan, 1982) and the notion of “implementational slippage” (Bowe et al., 1992; Penney & Evans, 1999) in policy to practice. Finally in this section, literature that considers the “critical inter-relatedness” (Penney, 2012) between curriculum, pedagogy and assessment” was foregrounded,

Changing tack in the latter part of the chapter, global developments in examinable PE courses in the senior school years were reviewed, before attention turned to pedagogical practice in PE that links knowledge and understanding to human movement and performance. Specific attention focused on Arnold’s (1979) conceptualisation of *learning in, through and about movement*, as the basis for a working definition of the term *integrated theory and practice*, which is used later to review potential creative and original pedagogic practice, emerging from enactment of PES in WA.

In the next Chapter I turn attention to Basil Bernstein’s conceptualisation of Pedagogic Discourse Model, which in conjunction with this Literature Review, and in particular Arnold’s (1979) work, provides an important foundation for the study.

Chapter 3

Conceptual Theoretical Framework

This study draws on aspects of Basil Bernstein's 1990 *Social Construction of Pedagogic Discourse Model* to focus attention on the nexus between curriculum, assessment and pedagogy. In particular, the study focuses on Bernstein's conceptualisation of pedagogic discourse, and specifically the *Recontextualising Field* (including the associated *Official Field of Recontextualisation* or ORF and *Pedagogic Field of Recontextualisation* or PRF) and *Secondary Field* in which discourse(s) are regulated and controlled by key agents. Bernstein's recontextualising and secondary field are a central reference point in this study and as I outline in this chapter, are used to frame the research questions, and my analysis and discussion of data.

Basil Bernstein was a British social theorist who developed his sociological theory of pedagogy over a period of more than three decades. In initial work, Bernstein (1990) examined the relationships between different sites of knowledge production and reproduction. He developed this work over the next two decades, with significant additions and adaptations in 1996 and 2000 in particular, adding to our understanding.

Penney, Petrie and Fellows (2015) point out that Bernstein's work provides a useful framework for analysis of policy and pedagogic discourse, but in support of Ball and Junemann's (2012) work note that "the landscape of both policy and pedagogy can no longer be conceived of as confined to or bounded by the historic governmental structures and relations associated with education systems" (Penney et al., 2015, p. 45). In addition they note that the "policy and pedagogic boundaries of HPE are inherently difficult to clearly distinguish and furthermore, are constantly changing" (p. 54), highlighting the dynamic nature of the contemporary policy space.

In utilising Bernstein's work from the 1990's in the UK as a frame for this study, I acknowledged that 25 or so years later and in the context of a contemporary educational setting, there is a greater separation between fields, with actors and agents operating across sites. Perhaps a good example of this is my own personal narrative outlined in the Chapter 1, in which I reflected on my role as course reference group member, bureaucrat, professional association representative, tertiary educator, examiner and independent reviewer. This was all in the period of approximately five years (2002 to 2007), sometimes taking on different roles at different times of the day, for example bureaucrat nine to five, and tertiary educator during the evening. Consequently, in the context of

Bernstein's recontextualising fields this research recognises the contemporary non-linear, fluid and multi-layered nature of recontextualisation, and that the boundaries between fields can become blurred and multi-directional.

I continue this chapter by providing insight into Bernstein's conceptualisation of pedagogic discourse before detailing key concepts related to the recontextualising and secondary fields. I then make a case for the suitability of this conceptualisation for this study. Finally, I detail the research questions for the study.

Pedagogic discourse

Bernstein's conceptualisation describes the general principles that underlie the transformation of knowledge into pedagogic communication (Bernstein, 1996). These take the form of systemic and institutionalised ways in which knowledge is recontextualised from the field of knowledge production into the school system and its distribution and evaluation within the schools.

Key to understanding the Bernstein's conceptualisation is the principle of *pedagogic discourse*, which he explains is a form of "appropriating other discourses and bringing them into a special relation with each other for the purposes of their selective transmission and acquisition" (Bernstein, 1990, pp. 183–184). Bernstein refers to a pedagogic discourse as the circulation and reordering of discourses, during which there is a process of de-locating of discourse(s), taking a discourse from its original form and moving it to a pedagogic site. This transformation takes place because every time a discourse moves from one position to another there is a space in which ideology can play (Bernstein, 1996, p. 47).

Essentially, for Bernstein, the construction of particular forms of consciousness has its roots in social relations. In terms of education, the pedagogic discourse refers to the social relationship between agents in the construction of knowledge and then the pedagogic recontextualisation of skills and learning to be acquired. Bernstein's work on the social production of pedagogic discourse provides one approach to understanding the nature and complexity of educational reform and the role agents and teachers in particular might play within it.

Three overriding considerations channelled the selection of Bernstein's work as a suitable framework for the present study. Firstly, this policy and implementation study would be firmly grounded in education (bureaucracies, schools, teachers and students). Broadly,

Bernstein's recontextualising and secondary field attempt to describe the general principles that underlie the systemic and institutionalized transformation of knowledge into pedagogic communication (Bernstein, 1996) such as that in education. Specifically relevant to this study was the observation by Hugo and Bertram (2009) that Bernstein's conceptualisation:

Allows a researcher to go beyond the normative question of how faithfully the official curriculum message is interpreted and implemented, to describing in nuanced ways the substance and nature of the message carried by the new curriculum and the ways in which the policy message is re-fashioned, recontextualised and re-interpreted as it moves through various levels of the education system. (p. 1)

Secondly, I was interested not only in the process of policy design and subsequent implementation, (including the changing dynamics and power relations at different stages of this process and how these have been variously expressed over time) but also the product in terms of how teachers and other agents interpret and recontextualise official curriculum, towards assessment and pedagogic practices within the classroom. In particular, how these impact on the integration of theory and practice in relation to the PES in WA.

Thirdly, this study centres on HPE, and more specifically senior schooling examination courses. While Bernstein's (1990) recontextualising and secondary fields do not relate exclusively to any particular subject area, variously Hugo and Bertram (2009), Clark (2005), and MacPhail (2004), amongst others, have applied it to specific subject centred contexts. More specifically in HPE, Kirk and Macdonald (2001) used Bernstein's (1990) work on the social production of pedagogic discourse, in their study of two states (Queensland and Victoria) varying approaches to developments in the National Professional Development Programme, as a frame to understanding the nature and complexity of educational reform and the role teachers in particular might play within it. Similarly MacPhail (2004) used Bernstein's work to investigate why teachers operating in Bernstein's secondary field were influenced in their decision to offer (or not) the Scottish HGPE.

The next section of this chapter expands upon Bernstein's (1990) conceptualisation of pedagogic discourse.

Inter-related fields

Basil Bernstein's work on pedagogical practice sought to understand the micro processes of education by linking and interconnecting policy, curriculum, and pedagogy, through an understanding of broader institutional, societal and historical factors and the contexts in which they play out. Kirk et al. (1997) refer to Bernstein's work as the:

... development of a complex model of the social construction of pedagogic discourse in which the relationships between meaning making processes at a range of levels within educational systems and the actual communicative processes that take place within and between sites of production of meaning are capable of being analysed and described in substantive and specific detail. (p. 276)

Bernstein's conceptualisation of pedagogic discourse centres on three 'rules' which give rise to three respective *fields*. Bernstein (1990) suggests that this device constituted the relay or ensemble of rules or procedures via which knowledge is converted into pedagogic communication. The three rules are referred to by Bernstein variously as the, "distributive, recontextualising and evaluative rules" (Bernstein, 1996, p. 42). These rules are hierarchical in the sense that the recontextualising rules are derived from the distributive rules and the evaluative rules are derived from the recontextualising rules (p. 42).

The rules are in turn linked to *fields* (or zones). It is these *fields*, and in particular the recontextualising and secondary fields, that were the focus in this study. The distributive rule is linked to the field of the production of discourse, the recontextualising rule to the recontextualising field and the evaluative rule to the field of reproduction. Importantly, Bernstein stresses the inter-relationship between these fields, and also the power relationships that exist between them. His conceptualisation of each of these three interrelated rules is associated with a specific field of activity. These are:

- **The primary field of production ("distributive")** where 'new' knowledge is constructed and positioned;
- **The field of recontextualisation ("recontextualising")** where discourses from the field of production are selected, appropriated and repositioned to become 'educational' knowledge, and;
- **The secondary field of production ("evaluative")** where pedagogic practice takes place.

The primary field of production

The Primary Field of Production of new knowledge tends to be where the ‘intellectual field’ of the education system originates and mainly takes place in institutions of higher education and private research organisations. New ideas are selectively created, modified and changed to result in specialised discourses. Bernstein emphasises that this field is concerned with the production of non-pedagogical knowledge rather than the reproduction of educational discourse and its practice. Kirk et al. (1997) refer to this “as the place in which the ‘unthinkable’ becomes reality and where new knowledge is created. Much of this work is done in universities and other research agencies and may be sponsored by governments or by corporations” (p. 276). However, as Singh (2002) points out that this:

... specialist expert knowledge is encoded in highly complex symbolic forms and must be decoded or translated (pedagogised) in order to be accessible to those outside the specialist domains. At the same time, knowledge producers do not have the time or resources to convert or translate new knowledge into a form accessible to non-specialist consumers. (p. 575)

The field of recontextualisation – the key site

Recontextualisation is where translation and encoding takes place and is at the heart of the term pedagogic discourse. For Bernstein (1990), pedagogic discourse is a “recontextualizing principle which selectively appropriates, relocates, refocuses, and relates other discourses to constitute its own order and orderings” (p. 184). Singh (2002) highlights that typically the “pedagogising of knowledge is increasingly undertaken within agencies of recontextualisation” (p. 575). The recontextualising field is concerned with the transfer of texts and practices from the primary context to the secondary context, that is, the transformation of non-pedagogical knowledge to pedagogical knowledge. In contrast to the primary field, Singh (2002) points out that, “recontextualisation of knowledge is largely undertaken by agents such as state departments of education and training, curriculum authorities, specialist education journals, and teacher education institutions” (p. 573).

Here the debate, critical reflection and contest revolve around how to transform what Bernstein refers to as esoteric knowledge into something that works inside schools and classrooms for educational leaders and teachers. Bertram (2012) contends that this “is a complex area, radically open to contestation as a negotiated balance has to be struck between the logic of the esoteric discourse in its own right and the demands of

recontextualisation” (p. 6). It is the place where there is “a selection of knowledge from the field of production, and this process results in the production of pedagogic discourse” (Bertram, 2012, p. 6). Recontextualising agents or recontextualisers make a selection as to how which knowledge from the boarder esoteric discourse will, for example, be selected, given priority, sequenced and assessed.

Within the recontextualising field, Bernstein distinguishes two sub-fields, an official recontextualising field (ORF) and a pedagogic recontextualising field (PRF). Bernstein recognises the ORF and PRF as fundamentally important in the creation and transmission of discourse and subsequent pedagogic practice. Accordingly, it is the “positions, agents and practices” within these sub-fields that are responsible for “the movement of texts/practices from the primary context of discursive production to the secondary context of discursive reproduction” (Bernstein, 1990, p. 192).

Official Recontextualising Field (ORF)

The ORF includes the “specialized departments and sub-agencies of the state and local educational authorities together with their research and system of inspectors” (Bernstein, 1990, p. 192). Typically the ORF is the field in which agents of the state, such as in the contexts of this study the CCWA, make selections from the knowledge in the Field of Production and use these to design artefacts such as official curriculum or in this case the PES course

Pedagogic Recontextualising Field (PRF)

The PRF is often comprised of the “specialized media of education” (Bernstein, 1990, p. 192) for example, journals, and textbook writers and publishing houses, together with other agents, such as in the context of this study, the various educational system and sectors advisor and consultants, the professional association (ACHPER WA), tertiary training institutions and independent professional learning providers. Accordingly, the PRF refers to the way in which these agents interpret and engage with the official curriculum message.

Singh (2002) notes that “conflict and contestation is rife in the PRF” with incentives “huge” as “agents of recontextualisation struggle for control over the pedagogic discourses that regulate the production of pedagogic contexts” (p. 577). Bernstein states that these struggles over the pedagogic discourse are attempts to control the production and distribution of different pedagogic models (i.e. the selection of privileged knowledge,

sequencing, and evaluation of valid school knowledge). Singh (2002) similarly recognises that the struggles are often “over theories of instruction, that is, models of the pedagogic subject (students), the transmitter (teacher, textbooks, computer), the pedagogic context (classroom and curricula organisation) and the communicative pedagogic competence (modes of teacher and student talk)” (p. 577).

Boundaries and relationships between PRF and ORF

While writing nearly a quarter of a century ago, Bernstein acknowledged that the relationship between the PRF and ORF was not always linear, hence a need to look critically at the boundaries and relationships. Critically, he drew attention to the “crucial dependence/independence between the ORF and the PRF” (Bernstein, 1990, p. 208). This is a point highlighted by Penney et al. (2015), who assert that contemporary pedagogic discourse is not confined to or bounded by the traditional structures, and that the policy process is non-linear and messy with boundaries between fields typically blurred. This aspect is addressed further in the context of this research later in this chapter.

The secondary field of production

It is in this secondary field of production that teachers interpret and recontextualise the official curriculum message in their classroom through their pedagogic and assessment practices. As Singh (2002) suggests this is where “privileged and privileging pedagogic texts created in the recontextualising field, such as curricular schemes and textbooks, are transformed again as they are appropriated by teachers and converted into modes of common or shared classroom knowledge in interactions with students” (p. 577). Importantly, Singh (2002) highlights that:

Bernstein (1996, 2000) argued that it is crucial to distinguish between the two text transformations that occur. The first is the conversion of knowledge appropriated from the field of production within the official and pedagogic recontextualising field. The second is the translation of this pedagogised knowledge by teachers and students in the recontextualising field of the school/classroom. (p. 578)

Bernstein identifies that during this ‘secondary’ recontextualisation two dimensions or discourse, or what Morais refers to “the what” as distinct from the “how” (Morais, 2002, p. 566) interact. Bernstein describes these two dimensions as “vertical and horizontal” dimensions. He defines vertical discourse, as a “coherent, explicit, and systematically principled structure, hierarchically organised, as in the sciences, or it takes the form of a series of specialised languages with specialised modes of interrogation and specialised

criteria for the production and circulation of texts” (Bernstein, 2000, p. 159) and is often referred to as school or official knowledge. In contrast, he defines horizontal knowledge as:

... everyday or “common-sense” knowledge. Common because all, potentially or actually, have access to it, common because it applies to all, and common because it has a common history in the sense of arising out of common problems of living and dying. This form has a group of well-known features: it is likely to be oral, local, context dependent and specific, tacit, multi-layered, and contradictory across but not within contexts. (p. 159)

Bernstein (2000) points out that importantly, in the secondary field of production, vertical disciplines must be brought into relation with horizontal experiential dimensions (p. 158), with for example, teachers choosing contexts that are typically local and relevant to illustrate and promote understanding of content. Singh (2002) and Maton (2007) in particular foreground that evaluative rules are particularly evident in assessment regimes which send strong messages about what counts as legitimate knowledge and knowing (Maton, 2007), and which have a significant role to play in “what counts as valid acquisition of instructional (curricular content) and regulative (social conduct, character and manner) texts” (Singh, 2002, p. 573).

Blurred boundaries

As established in Chapter 1, throughout this thesis I use Bernstein’s (1990) recontextualising and secondary fields to focus on key aspects of the *how and why* as related to PES in WA. I then reflected on the work of Peter Arnold to consider *what* integrated theory and practice variously emerged during enactment. In locating this study within Bernstein’s conceptualisation, Chapters 1 and 2 established senior secondary PES courses, as a pedagogic form, constructed from the school subject we typically know as PE/HPE. These courses are the consequences of a much broader series of non-pedagogical educational discourse(s), within the primary field of production. I contend that PE is a complex discourse practiced in most secondary schools around the western and developed world, and typically constructed out of some combination of sport, exercise, and active leisure, and potentially other discursive practices in the primary field such as dance, outdoor adventure activities and so on. Senior School PE courses are in turn a specialised form of the broader PE and HPE discourse, in which accepted knowledge (science, socio-cultural, skill acquisition, human movement, performance) has typically been positioned within a pedagogic form (syllabi, curriculum).

As indicated in Chapter 1, the starting point for PES in WA was the publication in 2002 of *Our Youth Our Future. Post-Compulsory Education Review* (CCWA, 2002), a text that was a *gathering point* and expression of various political and education discourse(s) in senior school reform in a WA context, notably the *Adelaide and Melbourne Declarations* and the *Curriculum Framework of WA*. This dynamic text (in the sense that it was a starting point for reforms) was informed and influenced by national and international regulative and non-pedagogical discourse(s) that represented the primary field of production for senior schooling in WA, and PES senior school courses more specifically.

This study then sought to understand the pedagogisation and hence the recontextualisation of discourse in the context of PES in WA, and more specifically in practice emerging in the secondary field of production. In directing attention to the recontextualising field I was also mindful of Penney et al. (2015) assertion that contemporary pedagogic discourse is not confined to or bounded by the traditional structures, and that the policy process is non-linear and messy with boundaries between fields typically blurred.

Research Questions

The research questions are outlined below and use Bernstein's recontextualising and secondary fields as a central conceptual frame. The study uses a phased research approach (which is outlined in Chapter 4), employing data from Question One and to a lesser extent Question Two, to inform and shape Question Three, with the ultimate aim of identifying *creative and original* (see chapters 1 and 2) integrated 'theory – prac' pedagogical practice.

I argue that the originality of this study lies in Questions Two and Three, however, we cannot glean a meaningful understanding of *what practice is emerging* in the secondary field of reproduction, without understanding the discourses that formed course design and recontextualisation during enactment, including planning for teaching, learning and assessment. The research questions were therefore,

Q1. What were the discourses that formed the policy principles from which the Physical Education Studies in WA was designed, and why was there a particular "central" focus on the "integration of theory and practice"?

Q2. What translations of the Physical Education Studies' central focus, to integrate theory and practice, have been made during enactment?

Q3. What “creative and original” (Ball et al., 2012, p. 2–3) “integrated theory and practice” pedagogical practice has emerged during enactment in the secondary field?

Chapter 4

Methodology

This chapter presents the design and procedures used in this study which in the context of PES in WA, sought a better understanding of the recontextualising fields (as outlined in Chapter 3), and especially the relationship between curriculum development in the ORF and the often contradictory, contrasting and unintended practices subsequently arising in schools amidst enactment (Ball et al., 2012) in the in the secondary field.

Methodology

Punch (2004) states that for research to be considered credible and authentic it must be designed and implemented using a justifiable rationale and a methodical approach. Accordingly, in this chapter I outline the methodology adopted in this study, focusing on methods employed for data collection, as they relate to the research questions. By way of introduction I start by making a case for the choice of qualitative research methods, before considering the influence of the contemporary educational context (namely the design and implementation of a new senior school PES in WA) and the conceptual frames used in framing the research questions and the phased research design. Following this I address the multiple methods and sources employed for data collection, and detail the analysis tools and process. Finally, I end this account by addressing relevant ethical issues as related to this study.

A qualitative and interpretive approach

The contemporary educational context (namely the design and implementation of a new senior school PES course in WA) and Bernstein's theoretical frames that informed the research (see Chapter 3) led the study towards qualitative methods within an interpretative frame.

The study focused on a contextually sensitive senior schooling environment, involving multiple layers of influence, which is open to interpretation, recontextualisation and meaning-making at a range of levels. It was clear from the outset that the story of the PES course in WA, and the practice emerging in schools, lie with people and in text(s). Typically these people were those involved with the conception of the course; those who designed and wrote it; and teachers who then sought to enact it. Moreover, the texts were typically those documents, material and artefacts that informed the design and enactment,

and then those that were produced in schools for teaching and learning purposes. Accordingly, it was important that the selected methodology facilitated a detailed analysis of the contextual conditions and complex interactions that shaped PES in WA, and the various artefacts that have come from enactment in schools. As such I held the view that I would have to analyse relevant documents and talk to the key actors involved in the development and enactment of PES in WA.

Another important consideration was that, as indicated in the personal narrative in Chapter 1, I had involvement at a number of sites during the period of course conception and enactment. As such I required a methodology that catered for this feature of 'me as the researcher'.

According to Punch (2009) the qualitative field "is a site of multiple methodologies and research practices", suitable for researching "complex, changing and contested" fields (p. 114). The suitability of this methodology to fluid and organic settings such as senior school reform and the design of a new course, is supported by Creswell (2009), who points out that researchers using qualitative approaches tend to attend to participants' views when doing their studies; ask general, open-ended questions, and collect data in natural settings as the study develops. As Cohen, Manion and Morrison (2000) and Laker, Laker and Lea (2003) suggest, researchers are therefore regarded as data collection instruments and have an important role to play. Their values, assumptions, beliefs, and knowledge have an influence on the data that is collected. Qualitative approaches focus on interpretations of what goes on in context and the data can be analysed using an open-ended approach (Cohen et al., 2000). Furthermore, Laker, Laker and Lea (2003) argue that this approach to enquiry, collection and analysis allows "a level of inductive, rather than deductive research" and "some freeing of the researcher from the constraints of absolute truths towards an understanding that the explanation of the data is in itself contextually dependent" (p. 78).

Continuing this focus on contextualisation, Lincoln and Guba (1985) have highlighted context as a central feature in educational research, with the emphasis that qualitative studies are therefore appropriate for contemporary contexts such as the development and enactment of the new PES course in WA, including policy development, curriculum change and implementation phases. Evans, Penney and Bryant (1993) argued convincingly in reference to their team's studies of United Kingdom (UK) National Curriculum in Physical Education Implementation that qualitative methods are ideal for understanding how or why certain phenomena occur. In developing qualitative research

protocols for their research Penney and Evans accepted, “the need for research to address the interactions between policies and point to the significance of this dimension of the policy process in shaping developments in schools” (Penney & Evans, 1999, p. 10). Fundamental to this form of inquiry is that elements are seen as interactive, they do not represent a step-by-step approach.

As explained in Chapter 1, the PES course was part of broader state-wide contemporary educational reform, as well as representing a significant change for the HPE community in WA. Enactment of the PES course in schools was ongoing as the study was being undertaken. Accordingly, the context of curriculum development that the research was engaging with was thus dynamic and the curriculum development process emphasised as neither simple nor linear. Consequently, I argue that a qualitative study was a good fit for this study.

‘Me as the researcher’

Briefly I return to issues related to ‘me as the researcher’. An important methodological consideration of this research was my own dual role as a researcher and potential source of data. As recognised in the personal narrative in Chapter 1, I had some history of involvement with PES in a number of different roles both in the ORF and PRF. Nilges (2006) recognises that researchers have “history” (p. 88–89) and joins Wright (2006) and Hickey (2010) amongst others in advocating for greater acknowledgment of the place of the researcher in the research process. Accordingly, at this point in the thesis I again foreground my own role in the development of this PES. I acknowledge that my personal networks and contacts with key actors in the design and development process were useful in setting up interviews and carrying out these in a very relaxed and personable way. However, while acknowledging this I do not want to overplay or inflate my own position or influence. While I held various roles, a number were for a short term (e.g. CCWA, Practical Examiner) and others were relatively peripheral to the processes investigated here (Professional Learning provider, Independent Reviewer). Therefore, in considering my own position in the process described here, I have employed the “policy of openness” suggested by Weatherell et al. (2001), using my own experiences during Chapter 1 to introduce the project, briefly in Chapter 9 to confirm some data, and in Chapter 10 to reflect on my own personal professional journey and role in PES and similar courses in the UK. Beyond this, I have followed Hickey’s (2010) advice that, “it needs to be acknowledged that the researcher can work only with the experiences and insights” that the data source provides (p. 111). Accordingly, I hope that in acknowledging, and in some

small way ‘using’, my experiences to value add, rather than influence, I have made the process transparent.

Framing the research questions, methodology and design

Early in Chapter 2 I established that many factors influence and impact curriculum development and change. It was established, for example, that the overriding feature in educational change processes were individuals, variously referred to as “policy actors” (Ball et al., 2011), “key actors” (Curtner-Smith, 1999), or those in a “privileged position” (Swabey & Penney, 2011) such as politicians, curriculum designers, school leaders, advocates and of course teachers. I made a case that Bernstein’s (1990) theorising of curriculum prompts examination of the role of teachers and others (political and social forces) in the development, mediation and reproduction of PES in WA. As such the research questions used Bernstein’s recontextualising (including the ORF and PRF) and secondary field as a conceptual frame. This aligned with Lincolns and Denzin’s (as cited in Punch, 2009, p. 9) suggestion that if a framework is employed to direct the research, it should be used to frame and “underpin” (as cited in Punch, 2009, p. 3) questions and methodology.

Accordingly, informed by Bernstein’s (1990) conceptual frame, the study design comprised two phases each using particular methods. While the intention was that the two phases would be broadly sequential, I was nevertheless mindful of the important point made in Chapter 3 that contemporary pedagogic discourse is a messy and non-linear process with boundaries between fields typically blurred. In practice, as discussed in subsequent chapters, it was not necessarily a clear-cut process and while Phase 1 data would typically inform Phase 2, it was not always possible to house data neatly in each phase. As a whole, the study was qualitative and interpretive in approach, and utilised multiple methods to progressively address the three research questions

Phase 1: The formation of the PES course

Research Question 1. What were the discourses that formed the policy principles from which the Physical Education Studies in WA was designed, and why was there a particular “central” focus on the “integration of theory and practice”? - **Documentary analysis with selected supporting semi-structured interviews.**

Phase 2: Enactment

Research Question 2. What translations of the Physical Education Studies' central focus, to integrate theory and practice, have been made during enactment? - **School based case studies, utilising interviews and documentary analysis.**

Research Question 3. What “creative and original” (Ball et al., 2012) “integrated theory and practice” pedagogical practice has emerged during enactment in the secondary field? - **School based case studies, utilising interviews and documentary analysis.**

The following sections detail the methods chosen for each phase, arguments for these, and explanations for the data analysis employed in the context of using specific methods.

Phase 1: The formation of the PES course

The following section details the methods used in Phase 1. It includes arguments for the choice of these and explains the data analysis employed for each specific method.

Documentary analysis

The initial development work for the PES course in 2007, pre- and post-implementation, involved: committee work; lobbying; drafting; consultation; redrafting and development of support material. Throughout the period 2002 to 2009 (a period that spans the publication of *Our Youth, Our Future* (2002), the first PES syllabus (2005) to the last revised version in 2009), a great deal of documentation was generated within the Curriculum Council of WA and by actors/groups associated with the ORF, and similarly, agencies/organisations associated with the PRF. Punch (2009) argues that “documents both historical and contemporary are a rich source of data for education and social reasons”, moreover he observes that while we produce many documents as records “much of this is neglected” (p. 159). I was keen to make the most of these published and official data, as I believed they would provide a strong platform from which to frame subsequent data collection and analysis, and secondly, would enable me to generate a record of the discourse(s) framing the PES and broader senior school curriculum reform. Penney and Evans (1999) successfully used extensive document reviews of key documents, typically formal sources such as terms of reference, interim reports, response statements, final report, and Final Orders, in their 1999 study of the National Curriculum in Physical Education Implementation in the UK. Similarly, Macdonald and Hunter (2005) also

successfully used document review to consider the USA's National Standards for Physical Education.

In selecting documents for analysis I was mindful of Hitchcock and Hughes (1995) definition of documents as “mainly written texts that relate to some aspect of the social world” (p. 212). However, while acknowledging that typically a document analysis will focus on written texts “it should be stated that a whole range of physical artefacts and printed ephemera are also potential sources of data” (p. 212). Similarly Lincoln and Guba (1985) recognise variety in documents sources, classifying them in terms of whether the text was written with a view to formalising a translation, and making a distinction between, for example, records (for example minutes and certificates) and documents for personal or informal rather than official use (for example notes and working documents such as first drafts). Accordingly, only publically available key documents developed in the ORF of the broader senior school curriculum reform and PES course were analysed. The following section details this selection process.

Selection of texts

Our Youth Our Future. Post-Compulsory Education Review (CCWA, 2002) was the starting point for the selection of texts for the document analysis. As established in Chapters 1 and 3, I held the view that this document arose out of the ORF and was a ‘meeting’ or ‘gathering’ place for a number of the broader global, national and state-wide discourses, and accordingly constructed, positioned and articulated the proposed reforms for Post Compulsory Education in WA. Initial analysis of this text and reference to its bibliography, generated a list of further documents for analysis. These included: *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (MCEETYA, 1999); *The Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA, 2008); *Curriculum framework for Kindergarten to Year 12 Education in Western Australia* (CCWA, 1998); *Post-Compulsory Education Review Position Paper* (CCWA, 2000) and *Our Youth, Our Future. Post-Compulsory Education Review* (CCWA, 2002).

A series of PES specific documents were also identified and analysed using the PES syllabus (2005) as a starting point. These included, the PES Syllabus (CCWA, 2006, 2008a, 2009), The Chief Examiners Report (CCWA, 2010, 2011, 2012) and PES Support materials Unit 1A and 1B (CCWA, 2008b). Other documents, including specific course designed texts and resources were added to this collection as a result of the interviews.

The analysis of these documents utilised work by Jupp (as cited in Punch, 2009), Hitchcock and Hughes (1995) and Miles and Huberman (1994), all of who emphasised issues of credibility and authenticity. Jupp (as cited in Punch, 2009) suggests four key questions when gathering, selecting and evaluating documents: authenticity (whether it is original and genuine); credibility (whether it is accurate); representativeness (whether it represents the totality of documents of its class); and meaning (what it is intended to say). Similarly Hitchcock and Hughes (1995) suggest a phased approach to document selection and the analysis. Phase one includes ‘location’, specifically the document’s source and date. Phase two includes, ‘classification’, ‘authenticity’, ‘credibility’, ‘representativeness’, and Phase three includes ‘interpretation and meaning. In support of this staged and phased approach Miles and Huberman (1994) propose the use of a document summary form, which focuses on putting the document into context.

A template similar to that proposed by Miles and Huberman (1994) was designed for my document analysis. This included three categories:

1. Location: Source and date
2. Classification, authenticity, credibility
3. Interpretation and meaning (words, phrases, concepts, comments, quotes, directives)

Each document was viewed, with location and classification noted. As a basis for interpretation a colour coding system was employed to identify common words, phrases, concepts, comments, quotes that represented common or *overarching discourse(s)* that were emerging. At the end of this a grid was drawn up and documents were cross-referenced. Apparent from this process were a number of *National and State* and *PE specific* overarching discourse(s). Accordingly, these were clustered together (see chapters 5 and 6).

For example, in regards the *National and State* category, coding identified a central discourse, which was classified the “alignment of Vocational, Educational and Training and school based post compulsory courses”. This was a cluster of discourse that was evident in documents such as *Melbourne Declaration on Educational Goals for Young Australians*, (MCEETYA, 2008), *Our Youth Our Future. Post-Compulsory Education Review* (CCWA, 2002) and *Post-Compulsory Education Review Position Paper* (CCWA, 2002). This included issues such as improving senior schooling retention and completion rates, and the extension of post school destinations through the development of a broader

range of subject based courses in senior school which had dual tertiary and vocational pathways. Consequently, these various discourse(s) were clustered accordingly under one overarching discourse title.

Similarly, a central discourse concerning the ‘integration of theory and practice’, and learning through movement soon emerged in the *PE specific* classification. This was a cluster of discourse that was evident in documents such as the various PES syllabi from 2005 to 2009, and included such issues as, the role of practical in teaching and learning, links between theory and practice, and the external practical performance examination. Accordingly, these various discourse(s) were clustered under one overarching discourse title.

The following section explains the rationale for use of semi-structured interviews, accompanying and supporting document analysis, to investigate the first research question.

Semi structured interviews

If you want to know how people understand their world and their lives, why not talk to them? (Kvale & Brinkman, 2009, pxvii)

Given the focus of research question one, it was clear that documentary sources could provide some important insights. However, to explain why texts took certain forms, why particular discourses came to be privileged or in contrast excluded from the various PES texts arising in the ORF and PRF, it was important to talk directly to “key actors” (Curtner-Smith, 1999) within these fields. Consequently semi structured interviews were undertaken with “policy actors” (Ball et al., 2011) or those in a “privileged position” (Swabey & Penney, 2011) amidst the PES development; namely individuals from Department of Education of WA (DoE Consultant, DoE Teacher representatives), Catholic Education Office (CEO Consultant, CEO Teacher representative), Association of Independent Schools of WA (AISWA Teacher Representative), Lead Writer, Chief Examiner and Tertiary Institutions including, Notre Dame University and Edith Cowan University, who were members of key groups such the PES Reference group (2002 - 2004) and the Course Advisory Committee (2007 - current).

I selected semi structured interviews because as Mason (2002) suggests the method allows for an “interactional exchange of dialogue”, and as Lankshear and Knobel (2004) acknowledge represents the “best available means for accessing study of participants opinions, beliefs, values and situated accounts of events” (p. 198) Furthermore, it is

important to “access person’s definition and understandings of processes” and “collect personal narratives” (p. 198). Hitchcock and Hughes (1995) similarly focus on the “flexible” nature of interviews and in particular the interviewers ability to be able to “probe and expand the respondents responses” (p. 157), or as Carspenden (as cited in Lankshear & Knobel, 2004) comments, “participants often say things in interviews they would not speak about in everyday conversations” (as cited in Lankshear & Knobel, 2004, p. 198).

As I was keen to explore the nature of some of the overarching discourse(s) emerging from the documentary review, I felt that the interviews needed to be flexible and unstructured to allow for issues and comments to be explored. In support of this intention, Hitchcock and Hughes propose that semi structured interviews “provide room for negotiation, discussion and expansion” and in particular provide a “balance between interviewer and interviewee” (Hitchcock & Hughes, 1995, p. 157). Similarly, Lankshear and Knobel (2004) identify that “semi structured interviews include a list of prepared questions, but the researcher uses this as a guide only and follows up on the relevant comments made by the interviewee, encouraging elaboration of important themes emerging” (p. 201).

Various researchers in the field of HPE, including Flintoff and Scraton (2001), Reid and Thorburn (2011) and MacPhail and Halbert (2010) have successfully used semi structured interviews to elicit views and approaches to policy interpretation and implementation phases. In the context of PES in WA, it was the capacity to listen to people’s understandings of the initial course conceptualisation and subsequent developments, and then follow up leads in their construction of reality, that guided my choice of semi structured interviews to support and expand on the documentary review.

Interview questions (see Appendix A) were designed in view of the overarching discourse(s) emerging from the document analysis. Interview questions were piloted with tertiary HPE colleagues to ensure they were pertinent, structured and timely. Pilot study participants were asked to comment on their suitability and some changes were made accordingly. The opportunity was also taken to practice exploring issues emerging, by way of impromptu and ad hoc questioning.

In carrying out the interviews with the various individuals indicated previously, I acknowledged that they were recalling events that occurred up to a decade ago. Recognising that this could be a limitation to the study, I offered interviewees the

opportunity to sight and refer to documents that formed the documentary analysis in Phase 1. No interviewees took up this offer, although I am aware that prior to the interview a number of interviewees refreshed their memory by reference to personal documents and records from the time.

All interviews were audio-recorded and transcribed for analysis purposes. Field notes were also made during and immediately after interviews as a further point of reference for analysis. The processes of interview transcription and making field notes are acknowledged as integral to analysis that is understood as a progressive process of engaging with and generating meanings from participants' texts (Finch, 1986; Mason, 2002). Interviewees were also provided with copies of transcripts for member checking (Lincoln & Guba, 1985).

Topics and issues of discussion from the interview transcripts were coded. Initially, these codes typically reflected the overarching discourse identified from the documentary reviews, for example, the extension and alignment of the WA Curriculum Framework (1999) and Learning Area Outcomes from K - 10 into Senior Schooling; inclusivity; personalisation; and the integration of theory and practice. Later, issues emerged which were not as evident in the documentary review, for example, discourse relating to senior school PES course content, and this was consequently added to the list of overarching discourse. Key quotes and references that would later be used for illustrative purposes were highlighted. Finally the responses were further correlated and cross referenced against the grid of overarching *National and State* and *PE specific* discourse emerging from the document analysis and clustered accordingly.

Phase 2: Enactment

The following section details the methods used in Phase 2. It includes arguments for the choice of these and explains the data analysis employed for each specific method.

Case studies of PES being interpreted and enacted in schools

As indicated, Phase 2 sought to focus on research questions 2 and 3 and explored translations and what integrated theory and prac pedagogical practice had emerged during enactment of PES in WA in the secondary field, and in particular whether any of this could be identified as “creative and original” (Ball et al., 2012, pp. 2–3). The choice of case study approach for this particular aspect of the research, was informed by Yin (1989;

1994), Cohen, Manion and Morrison (2007), Punch (2009) and Adelman, Jenkins, and Kemmis (1977) who variously identify key features that were pertinent to this study.

Yin (1994) highlights that a case study is an “empirical study that investigates contemporary phenomenon within its real-life context” (p. 12) and identifies five characteristics of case study, which seemed to align to the frame of this study.

1. A studies questions
2. Its (theoretical) propositions
3. Its units of analysis
4. The logic linking the data to the propositions
5. The criteria for interpreting the findings. (Yin, 1994, p. 20)

In the case of this study the research questions were profoundly informed by Bernstein’s (1990) conceptualisation or “theoretical propositions” of the recontextualising and secondary fields. The phased approach meant that the case studies would be supplemented and informed by data and findings from previous “units of analysis” (namely Phase 1). Finally, findings from these earlier data sources would link to and inform the criteria for analysing and reporting case study findings as related to the second and third research questions, and the particular focus on practice emerging during enactment.

Cohen et al. (2007) describe case studies as “the study of an instance in action” and that studies “are set in temporal, geographical, organisational, institutional and other contexts that enable boundaries to be drawn around them” (p. 253). Moreover, Punch (2009) suggests that one case (or perhaps a small number of cases) should be studied in detail, using whatever methods and data seem appropriate and that interpretation and analysis to provide broader meaning can be developed and extended over a “collective case study”. In this way we “learn more about the phenomenon, population and general condition” (p. 119).

Accordingly, in the context of this study, I decided to use a small number of varied schools, to identify generalisations and variations across the sample to produce a “collective case study” which would provide a picture of enactment in the PRF and secondary field, and in particular, whether any “creative and original” integrated theory and practice could be identified. In support of Cohen et al. (2007) the case studies encompassed a range of different schools and “boundaries”, in regards system and sector (DoE, Anglican and CoE), geography (Metro and Country), school size (ranging from

600 to 1500 students) and PES cohort size (ranging from 45 to 120 across years 11 and 12).

The importance of context and the reality that case studies provide is a particularly important feature of the study. Adelman et al. (1977) offer six advantages of the case study over other approaches when a specific context (in this case PES) is being studied. I highlight three of these points, which were particularly significant to this study. Firstly, case studies are strong in reality. Adelman et al. (1977, p. 8) state that this “strength in reality is because case studies are down to earth and thus provide a natural basis for generalisation” (p. 8). Working within the secondary field I believed these case studies would provide snapshots of real world and coalface practices of PES enactment reflecting warts and all. Specifically, as Singh (2002), writing in the context of Bernstein’s conceptualisation suggests, individual cases of how and where:

... privileged and privileging pedagogic texts created in the field of recontextualisation, such as curricular schemes and textbooks, are transformed again as they are appropriated by teachers and converted into modes of common or shared classroom knowledge in interactions with students. (p. 577)

Adelman et al. (1977) second point is that case studies allow generalisations to be made, arrived at by recognising similarities and conflicts based on objects and issues in and out of contexts. A point supported by McKenna and Thomas (2007) who suggests that a case study approach allows the “specific” to illustrate the “general” (p. 22). Importantly while the nuances of individual context were of interest, I believed I would gain a better picture of the broader recontextualisation from the commonalities and variations across the case study school. Accordingly, I hoped to identify generalisations and / or ‘cliques’ across the case studies regarding, for example; common understandings and approaches to the integration of theory and practice, and factors affecting and influencing this practice both in and out of context.

Thirdly, Adelman et al. (1977) suggest that case studies are “a step to action” (p. 8). They reflect reality and can form a focus for feedback and evaluation. This aspect is pertinent to this study as the ultimate aim of the investigation was to identify illustrative examples of “creative and original” integrated theory and practice pedagogical arrangements.

Various researchers in the field of HPE (e.g. Armour & Yelling, 2007; Brooker & Macdonald, 1999; Reid & Thorburn, 2011) have employed the case study method, typically utilising interviews and multi-method approaches, to investigate curriculum

development and implementation in various national and systemic contexts. In this context, Armour and Yelling (2007) suggest that while case studies have limitations, which must be recognised and managed, careful selection allows for “maximum learning”. Meanwhile, Attard and Armour (2006) point out that case studies provide the reader with information that is “closer to the kind of knowledge that teachers hold – context-sensitive and richly descriptive knowledge” (p. 213).

In light of the conceptual frame for the study and its intimate link to the research questions; the contemporary nature of the topic; the importance of context; the potential to be able to make generalisations and interpretations from similarities and conflicts; and the reality they provide, the case study method was deemed highly appropriate for this study. In the next section I provide detail regarding the case study selection and the specific cases.

Case study selection

The selection of case study schools was directly informed by preceding phases of data collection and analysis and used “purposive” or “purposeful sampling” (Patton, 2002; Maxwell, 1992) or “selective sampling” (Coyne, 1997; Schatzman & Strauss, 1973).

In the context of this study and the conceptual frame upon which it is based, Maxwell’s (1992) comment that, “purposive sampling allows for a focus on ‘particular settings, persons, or events . . . deliberately selected for the important information they can provide that cannot be gotten as well from other choices’” (as cited in Tweddle & Yu, 2007, p. 77), was particularly relevant, as it provided the facility to focus on sites where worthy practice or in some cases good ATAR results, had already been identified. Similarly, relevant to this study was, the pragmatic case put forward by Schatzman and Strauss (1973) in Coyne (1997) who highlight that this method not only allows researchers to sample according to the research focus, especially for matching “philosophies and known quality”, but also the practical benefits, stating that it “is a practical necessity, shaped by the time available” (Coyne, 1997, p. 624). Hence, in my desire to investigate practice emerging in a timely and efficient manner both for the school and me, purposeful sampling/ selective sampling appeared a good fit.

Consequently, I employed the following process to create the case study sample. During the semi structured interviews carried out in Phase 1 of the study, I used the extract referred to below from the Rationale in the PES syllabus (CCWA, 2008) and directly asked participants “Where do we see integrated ‘theory – prac’ pedagogical practice”?

Throughout the course emphasis is placed on understanding and improving performance in physical activities. The integration of theory and practice is central to studies in this course.

Physical Education Studies focuses on the complex interrelationships between motor learning and psychological, biomechanical and physiological factors that influence individual and team performance. Students engage as performers, leaders, coaches, analysts and planners of physical activity. Physical activity serves both as a source of content and data and as a medium for learning. Learning in Physical Education Studies cannot be separated from active participation in physical activities and involves students in closely integrated written, oral and physical learning experiences based upon the study of selected physical activities. (p. 9)

Variouly, interviewees were able to offer some specific teachers and/or schools, although there was some significant duplication. Interviewees referred to a schools good ATAR scores and/or teachers who had been involved in either professional learning or having presented materials and samples of work at Network meetings. One school was identified as a bit “quirky”, but consistently did well in terms of ATAR scores, while another specific teacher was identified as having been a “role model” in a provincial WA town. Based on the limited examples offered I approached schools and the specific PES teachers named from the process described above, to be involved in the case study phase of the research.

In total I was hoping to recruit four schools for the case studies. Initially, six schools were selected from a mix of different system and sectors. They were schools that were referred to multiple times by interviewees or schools where a specific recommendation had been made. Specific teachers from each school were approached through the Principal. Five schools accepted the invitation; one school was not able to be part of the study. In light of this I decided to use the five schools as they represented what I regarded as a good mix of schools, in terms of cohort size and teacher experiences. Formal permission for the research was gained from relevant Principal and specific PES teachers, using a standard letter designed as part of the Ethics application and approval process (see Appendix B and C). Soon after this initial contact one school withdrew as the staff member who accepted the initial invitation left the school and the replacement did not feel they had sufficient knowledge of the school context and PES course design to continue to be part of the study. Therefore, I continued with four schools. Table 2 provides a profile of each case study school.

Table 2

Case Study School Profiles

Case study school	Type	Size	PES provision	No. of classes	PES teacher
1	Anglican Christian High School	800 students (Years 7–12)	PES in Year 11 and 12	Two classes in Year 11 and one in Year 12 = approximately 75 students in total	‘Tom’ - had 4 years’ experience teaching PES in WA since 2010
2	State High School	1500 students (Years 7–12)	PES in Years 11 and 12	Three classes in Year 11 and two in Year 12 = approximately 120 students in total	‘Sam’ - had 5 years’ experience teaching PES in WA since 2009
3	Catholic Secondary College	700 students (Years 7–12)	PES in Year 11 and 12	Two classes in Year 11 and Year 12 = approximately 90 students in total	‘Mike’ - had more than 10 years’ experience teaching senior school HPE courses in the UK and WA, including the teaching PES since 2008
4	Rural/Country State High School	600 students (Years 7–12)	PES in Year 11 and 12	One class in Year 11 and Year 12 = approximately 45 students in total	‘Maria’ - had 7 years’ experience teaching PES in WA and the NSW equivalent since 2007/8

Case study data collection

Working within the qualitative and interpretative research paradigm, I utilised Cohen, Manion and Morrison’s (1980) advice that, “exclusive reliance on one method may bias or distort the researcher’s picture of the particular slice of reality he is investigating”. Moreover, “that reliability can only be achieved when different methods of data collection yield substantially the same results” (p. 254). I therefore again employed document review and semi structured interviews as the data sources.

The teacher at each case study school was asked to participate in a semi-structured interview and provide two forms of documents for review. These were firstly, unit plans

including the teaching and learning programme, and secondly, the assessment outline including all tasks, marking keys and/or rubrics. This data was successfully collected from all of the case study schools. In some cases additional data was offered and accepted, these included power-point slides, practical based resources, revision documents and additional resources used to support the chosen text.

Semi structured teacher interviews

A series of questions was designed as the basis for the teacher interviews. The questions (see Appendix D) were informed by the *PES specific* discourse and resulting texts emerging from Phase 1 and 2 of the study (see Chapter 6). I followed a structured, but flexible (Hitchcock & Hughes, 1995), process of questioning across all four schools, then probed (Hitchcock & Hughes, 1995) and investigated leads as they emerged from each teacher's answers. I was also acutely aware that the interview process can be very time consuming for all, therefore I wanted to be thorough and get what I wanted from each interview, without bothering the teachers again.

In an attempt to gauge the effectiveness of the interview process, I piloted the approach with an experienced teacher and former colleague. The pilot threw up a number of issues. Firstly, the length of the interview was in advance of the one hour I had requested from the case study teachers, and it was evident some questions overlapped and doubled up on issues. Secondly, probing leads in the semi structured approach, compromised time and some questions were not attended to vigorously enough. I therefore reduced the planned question list down from twelve to a basic eight, proposed to allocate each question and follow up 10 minutes, and contacted teachers to organise a timeslot of one and half hours, to which they all kindly agreed. While increasing the 'structure', I still felt true to the use of the term 'semi'.

The interviews all took place with teachers at the respective schools, typically in an interview or private room, although in one case it was in the department office (in this case knocks on the door and people exiting and entering did effect the quality of the recordings and compromise time, but not the responses). The interview responses were audio-recorded and field notes were also taken.

Following the school visit interview recordings were transcribed and copies of my own field notes were formalised. Specific quotes, comments and areas of interest were highlighted. These scripts were returned to interviewees for member checking.

Document review

Planning documents, including two forms of data, unit plans and assessment tasks, were collected and used to confirm (or not) comments and issues from the interviews. These documents provided a window to analysing teacher practices during enactment and allowed me to cross reference comments made in the interviews. The documents specifically provided a tangible insight into how curriculum had evolved at the school through data about aims, methods and content development, and an understanding of how students accessed the teaching and learning.

Case study analysis

The data analysis process had two stages, which I have termed ‘amidst’ and ‘post’, and are now explained.

As Burgess (1984) highlights, “data analysis takes place alongside data collection” (p. 265). As such, ‘amidst’ the interviews analysis of the data was happening as we spoke, as I pursued integrated theory and practice through these lenses, typically asking for more detail and illustrations of certain examples that were of interest. As such I edited and explored as the interview progressed. Accordingly, the analysis took on a very organic and non-linear approach. While all examples offered were noted and variously reported in the case study narrative (see Chapter 7), the discussion in Chapter 9 of this thesis only focuses on those practices across the case studies that reflected in-part or whole to the definition and matrix of integrated theory and practice.

‘Post’ the case study school visit, interview recordings were transcribed and copies of my own field notes were formalised. Specific quotes, comments and areas of interest were highlighted. Similarly, following the school visit documents were read and analysed, with specific attention paid to the unit outline, and the assessment outline and accompanying tasks, especially the ‘investigations’. Each document was viewed, and the same analysis process used in Phase 1 of the study was employed, with key words, phrases, concepts, comments and quotes identified and then correlated with interview transcripts. Subsequently, using the interview questions as a frame, I analysed the data sets and identified areas of agreement and contradiction. Throughout, I constantly highlighted specific quotes and reference points, which were used as the basis for a series of case study narratives.

In regards to examples of “creative and original” integrated theory and practice emerging during enactment of PES in WA, I employed two lenses. Firstly, the definition referred to in Chapter 2 which proposed integrated theory and practice as; an understanding *about* theoretical knowledge and principles, “developed and utilised” (Hay & Penney, 2009), *in and through* authentic practical activities, contexts and situations. As such theory and practice are integrated and interrelated. Secondly, the integrated theory and practice matrix (see Table 1, Chapter 2, p. 2), which represented a synopsis of key terminology and literature. This matrix, in tandem with the definition above, formed the basis for analysis.

Case study narratives

As a consequence of this process, individual case study narratives (see Chapter 7) were compiled using both interview and documentary review data. The narratives employed the *PES Specific* overarching discourse from Phase 1 of the study (reported in chapter 6), the interview questions and other ‘textures’ that were apparent from the case study data, as a framework for organising and presenting the stories. Each case study school narrative is presented separately and typically organised as follows;

- The philosophical approach to PES (including the role of personalised learning and inclusivity; and alignment to the WA Curriculum Framework)
- An understanding of the phrase “the integration of theory and practice
- The promotion of “the integration of theory and practice” through the PES syllabus
- The role of integrated theory and practice in unit planning
- Integrated Theory and Practice in practice
- Integrated Theory and Practice and the ATAR external examination
- The role of ‘practical’ in the teaching of syllabus content
- Resources and texts used in the teaching of PES
- The PES unit outline, including structure, content descriptions, practical performance and assessment schedule
- Assessment outline, including examples of practical performance tasks, investigation tasks, response tasks:
- Case study summary

Ethical considerations

Research in all its forms involves ethical issues. Mason (2002) states that, “qualitative researchers should be as much concerned to produce a moral or ethical research design as we are to produce an intellectual coherent and compelling one” (p. 41). Accordingly, in this section I outline the ethical considerations that were addressed in carrying out the study. During the proposal of this study ethics approval was requested from ECU. Approval to proceed with the research was granted by the Research and Scholarships Committee of ECU on May 28, 2013.

During the document analysis only those publically available (past and present) were used. Permission to take part in the semi structured interview process was obtained from individuals and where appropriate employers. Participation by all individuals was on a voluntary basis and involved informed consent. Participants were informed verbally and in writing that all the data gained in the research would be confidential. Prior to the various interviews participants were again given a brief outline of the research, and their consent was confirmed. No individuals from the Phase 1 semi-structured interviews are named, instead, the employers or institutional names (for example, the CEO) who they represented, or worked for, are referred to. Participants received a copy of the interview transcript and were given the opportunity to modify responses.

Schools and teachers were invited to be part of the case study research through a formal letter and consent from the Principal. Permission from schools to participate in the case study research was received from four schools. Schools participating in the research were made aware that participation was voluntary, that the school would not be identified in any way and that they would receive a copy of the findings from the research upon completion. No observations of students during lessons took place. The limitations of a no observation in the ‘classroom’ setting are discussed in the next section.

Documents and interview audio-files were stored on my password-protected computer or in a secure locked file with access restricted to myself, and supervisors where necessary. The data gathered was not used for any other purpose than that outlined in this study, and journal and conference papers related to it. Participants were informed of this. At the completion of research, the data will be stored in ECU’s School of Education locked storage facility in Building 8 of the Joondalup campus, and will be destroyed after five years. All these processes have been designed to ensure ethically balanced research.

Limitations of the research design

The overriding limitation of the study design was the lack of observation in the ‘classroom’ setting during the case studies. The interviews and document review of reported pedagogical practice within the case studies provided a good insight into approaches to integrated theory and practice, but without doubt seeing these in action would have clarified meaning and confirmed or not the intent of practice, and allowed more illustrative ‘coalface’ accounts to be reported. I took the decision not to observe classroom teaching for pragmatic and ethical reasons, believing that the interviews would provide sufficient depth of descriptive data. I acknowledge that observation data would illustrate the full nature of the pedagogical practice apparent in school.

In Chapter 1, I foregrounded that overall I found only *modest* evidence of ‘integrated theory and practice’ pedagogical practice in schools. Accordingly, I acknowledge the limitations of the sample size and type, including varied features of the case study schools and the teachers selected. The schools selected were based on advice provided by agents during the semi-structured interviews carried out in Phase 1 of the study. A larger sample sourced through a variety of different agents may have provided greater variety of practice.

Earlier in the Chapter (see page 66) I drew attention to the link between the researcher (me) and this research. Accordingly in this section I acknowledge the potential for this to be considered a limitation, but clarify that the study was framed in such a way that my experiences were used to value add, rather than influence.

Summary

This chapter has presented a discussion around the suitability of the design and procedures employed in this study. It has reported that the study took a phased approach and discussed the methodology used to support this. It outlined the research questions and explained that the contemporary educational context of the design and implementation of a new senior school PES in WA, and Bernstein’s (1990) theoretical frames that informed the research (see Chapter 3), led the study towards constructivism, and more specifically, qualitative and interpretative methods. Accordingly, Phase 1 of the study employed document review and semi structured interview as data source to consider the discourse that formed the course, while case studies were carried out to investigate individual translations, and in particular whether any “creative and original” (Ball et al., 2012)

‘integrated theory and practice’ pedagogical arrangements had emerged during enactment in the secondary field.

Specifically the chapter has overviewed the selection of texts for documentary review, and the recruitment of participants for the semi-structured interviews in Phase 1, which in turn informed the selection of case study schools in Phase 2. Consequently the procedures employed for recruitment, and the collection, analysis and reporting of data from the case studies are outlined. Finally, ethical considerations and some comments regarding the limitations of the methodological approach employed are made.

The next chapter begins to start reporting on research data starting with the policy principles and *overarching discourse(s)* that were central to the design of the Physical Education Studies (PES) course in WA.

Chapter 5

The National and State Policy Backdrop to PES in WA

This chapter reports on the policy principles and *overarching discourse(s)* that were central to the design of the Physical Education Studies (PES) course in WA. Accordingly, the chapter begins to tell the story of *how* the PES course in WA came to be and specifically *why* it had the central intent to ‘integrate theory and practice’. It reflects data arising from Phase 1 of the study and was the result of a series of document reviews.

The ‘overarching discourse’

Broadly the chapter examines the National and State backdrop to Senior School reform in WA, and identifies the *overarching discourse(s)* that framed the development of the PES course. I use the term *overarching discourse(s)* to refer to clusters of pedagogic discourse that were, in the context of the conceptual frame to this study (outlined in chapter 3), appropriated within the primary field of production, and which formed the basis for recontextualisation in the Official Recontextualising Field (ORF) and the Pedagogic Recontextualising Field (PRF). Reflecting on this, it is timely to point out that the relationship between these various fields is not necessarily linear or sequential. They can be seen in this context as operating to some degree in tandem and with blurred boundaries between them by virtue of common agents and actors (as discussed in chapter 3). Accordingly, in presenting this data I acknowledge, for example, the overlap between National and State (in this context WA) agendas and priorities within these discourse, and the inherent reliance they often have on each other.

As a result of the document analysis, a number of overarching discourse(s) were identified (see Table 3). These included lifelong learning; the alignment of Vocational, Educational and Training and school-based post-compulsory courses; inclusivity and personalisation; and a number of specific WA issues, most notably the extension and alignment of the WA Curriculum Framework (CCWA, 1999) and learning area outcomes from K - 10 into senior schooling, which while inherently related to the above discourse had a number of unique state based features.

These overarching discourse(s) effectively provided the policy backdrop to senior school reform in WA. In Chapters 3 and 4, I outlined that the starting point for the selection of texts for the document analysis was *Our Youth Our Future. Post-Compulsory Education Review* (CCWA, 2002). I held the view that this document was the ‘gathering place’ for

a series of broad political and education discourse(s), which articulated the proposed reforms for Post Compulsory Education (subsequently referred to as Senior Schooling) in WA. This text was informed by national and international regulative and non-pedagogical discourse(s), such as the aforementioned lifelong learning and inclusivity. While acknowledging the overlapping nature of Bernstein's fields I contend that in the context of these broader reforms, it represented the *Recontextualising Field*, and specifically the starting point for the ORF, a field with ministries, agencies and organisations associated within it. In the WA context these included key agents such as the Department of Education (DoE) and the Curriculum Council (CCWA). Accordingly, *Our Youth, Our Future* was a key text produced in the ORF by the CCWA on behalf of the Minister of Education, and provided a point of reference for the production of other texts within the ORF (including the PES and all other new senior secondary courses) and in the PRF.

As explained in Chapter 4 initial analysis of the *Our Youth, Our Future* text and reference to its bibliography generated a list of further documents for analysis. This included: *The Hobart Declaration, A Review of the 1989 Common and Agreed Goals for Schooling in Australia* (MCEETYA, 1989); *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (MCEETYA, 1999); *The Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA, 2008); and the *Curriculum framework for Kindergarten to Year 12 Education in WA* (CCWA, 1998). It was these texts that formed the primary documentary data source from which the overarching discourses discussed below were identified.

The data is presented twofold. Firstly, in Table 3, I present a synopsis of the overarching discourse which formed the National and State backdrop to the Senior School reform in WA. This is essentially a list supported by specific sources and references, which were typically key documents used in the research. Secondly, I expand on these broader educational texts and discourses to discuss and acknowledge that actions, negotiations and decisions relating to this backdrop and these discourse(s), within the *recontextualising field*, and in particular the ORF, are critical in gleaning a true understanding of development of PES in WA in its pedagogic form.

Table 3

The Overarching Discourses Identified from Documentary Analysis

Overarching discourse	Document source(s)
Lifelong learning and the desire to ensure that “all students leave senior school years with foundation skills for life and the capacity for, and inclination towards ongoing learning” (<i>Our Youth, Our Future</i> , CCWA, 2002, p. 18).	<i>Our Youth, Our Future</i> (CCWA, 2002); <i>Common and Agreed National Goals of Schooling in the Twenty-first Century</i> , Adelaide (MCEETYA, 1999); <i>Melbourne Declaration on Educational Goals for Young Australians</i> (MCEETYA, 2008).
Inclusivity, and access, equity and opportunity for all, including, “access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent” (<i>Common and Agreed National Goals of Schooling in the Twenty-first Century</i> , MCEETYA, 1999, p. 3).	<i>The Hobart Declaration</i> (MCEETYA, 1989); <i>Common and Agreed National Goals of Schooling in the Twenty-first Century</i> , Adelaide (MCEETYA, 1999); <i>Melbourne Declaration on Educational Goals for Young Australians</i> (MCEETYA, 2008); <i>Curriculum framework for Kindergarten to Year 12 Education in Western Australia</i> (CCWA, 1998); <i>Our Youth, Our Future</i> (CCWA, 2002).
“Personalised learning to support and fulfil the diverse capabilities of each young Australian” (<i>Melbourne Declaration on Educational Goals for Young Australians</i> , MCEETYA, 2008, p. 7).	<i>Melbourne Declaration on Educational Goals for Young Australians</i> (MCEETYA, 2008); <i>Our Youth, Our Future</i> (CCWA, 2002).
The alignment of Vocational, Educational and Training and school based post compulsory courses, and the provision of a broader range of subject based courses. Accordingly, “schooling should offer a range of pathways to meet the diverse needs and aspirations of all young Australians, encouraging them to pursue university or postsecondary vocational qualifications that increase their opportunities for rewarding and productive employment” (<i>Melbourne Declaration on Educational Goals for Young Australians</i> , MCEETYA, 2008, p. 12).	<i>Common and Agreed National Goals of Schooling in the Twenty-first Century</i> , Adelaide (MCEETYA, 1999); <i>Melbourne Declaration on Educational Goals for Young Australians</i> (MCEETYA, 2008); <i>Our Youth, Our Future</i> (CCWA, 2002); <i>Post-Compulsory Education Review Position Paper</i> (CCWA, 2000).
The extension and alignment of the WA Curriculum Framework (1999) and Learning Area Outcomes from K - 10 into Senior Schooling to provide a “coherent K-12 focus on the outcomes and principles of the Curriculum Framework and a seamless transition from compulsory to post compulsory education” (<i>Our Youth, Our Future</i> , CCWA, 2002, p. 31).	<i>Our Youth, Our Future</i> (CCWA, 2002); <i>Post-Compulsory Education Review Position Paper</i> (CCWA).

In the next section, further background relating to the National backdrop to senior schooling reform in WA is initially addressed, before each of these overarching discourses are discussed.

The National backdrop to senior schooling reform in WA

In April 1999 State, Territory and Australian Government Ministers of Education convened for the 10th Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA, 1999) in Adelaide. They agreed to a set Common and Agreed National Goals of Schooling in the Twenty-first Century (MCEETYA, 1999), more commonly known as the Adelaide Declaration, which was further elaborated on nine years later in the Melbourne *Declaration on Educational Goals for Young Australians*, (MCEETYA, 2008). Collectively these declarations highlight a gradual shift towards a national senior schooling reform agenda, within the context of agreement upon more general educational reforms amidst State/Territory differences and priorities.

In this context it is important to understand the balance of federal/state-territory relations and responsibilities in education nationally. While the federal Commonwealth government has primary responsibility for overall economic management in Australia, State Governments have control, including legislative power, over education, as well other important services such as public health, police and justice, and transport. However, the states' reliance on federal government funding to pay for services including education and health means that the government can influence the way things are done in areas such as education. The debate regarding the declarations and agreed educational goals referred to in this chapter is a national one encompassing the commonwealth of states. Implementation is, however, a state based responsibility.

The nationally agreed directions can best be summarised as, improvements in literacy and numeracy standards within the broader context of world standards; incorporation of ICT into curriculum; greater curriculum and educational links to globalisation and in particular Asia; and educational recognition of the complex environmental, social and economic world in which we live. Notably, the Adelaide and Melbourne Declarations also included a specific focus on senior schooling and in particular a goal and commitment that:

... all students have access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent and that provides clear and recognised pathways to employment and further education and training”, (Common and Agreed

National Goals of Schooling in the Twenty-first Century; MCEETYA, 1999, Goal 3.6).

The issue of access for all and improved pathways between school, tertiary and vocational education are key discourse driving National senior school reform, in particular in WA, and are dealt with later in this chapter. The Adelaide Declaration further emphasised that the,

... achievement of the national goals for schooling will assist young people to contribute to Australia's social, cultural and economic development in local and global contexts. Their achievement will also assist young people to develop a disposition towards learning throughout their lives so that they can exercise their rights and responsibilities as citizens of Australia. (MCEETYA, 1999, p. 3)

Accordingly, I start this more detailed discussion of the overarching discourse by addressing the issue of lifelong learning.

Lifelong learning

The emergence of lifelong learning as a core educational policy agenda item, particularly for senior schooling reform, was developed in the Adelaide and Melbourne Declarations and then vigorously pursued in *Our Youth Our Future*. I step outside the data briefly to define lifelong learning. Watson (2003) has defined lifelong learning as, “a continuously supportive process which stimulates and empowers individuals to acquire all the knowledge, values, skills and understanding they will require throughout their lifetimes and to apply them with confidence, creativity and enjoyment in all roles, circumstances, and environments” (p. 3). In the context of senior school, the Adelaide Declaration strongly emphasised the link between lifelong learning, employability skills, appropriate attitudes and opportunity, stating that students leaving compulsory schooling should “have employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning” (MCEETYA, 1999, p. 2). Similarly, nine years later, the Melbourne Declaration reiterated these goals and in particular stressed the need to ensure that pathways through and beyond compulsory schooling support lifelong learning, both structurally and attitudinally, highlighting:

All governments and school sectors need to support young people’s transition from schooling in to further study, training or employment and enable them to acquire the skills that support this including an appetite for

lifelong learning. Support may also be needed for young people returning to education and training after a period of employment. (p. 12)

It is against this backdrop that *Our Youth Our Future*, recognised the “restrictions in the system” (CCWA, 2002, p. 19) which in WA had historically disenfranchised some students from progressing towards certain destinations, and proposed new post-compulsory arrangements that ensured “all leave school with foundation skills for life and the capacity for, and inclination towards ongoing learning and adaptation” (p. 14). Accordingly with this aspiration in mind, *Our Youth Our Future* proposed a more flexible and seamless pathway between educational, vocational and training destinations, supported by raft of other structural and rational reforms.

Flexible and seamless pathway - The alignment of vocational, educational, training and school based post compulsory courses

The Adelaide Declaration linked lifelong learning intimately to the desire for flexibility and seamless pathways between school, immediate post school destinations, future employment and learning opportunities. Goal 2.4 stated that students should participate “in programs and activities which foster and develop enterprise skills) including those skills which will allow them maximum flexibility and adaptability in the future” (MCEETYA, 1999, p. 2). The Melbourne Declaration expanded on this, stating successful learners, “are on a pathway towards continued success in further education, training or employment, and acquire the skills to make informed learning and employment decisions throughout their lives” (MCEETYA, 2008, p. 12).

Dovetailing and alignment of senior school courses and post school destinations is a major discourse pervading both sets of national educational goals. In particular both declarations articulated the desire for new senior school arrangements to provide greater flexibility for students to select courses according to likely destinations, with options to modify and adapt these pathways as interests and aspirations changed and evolved. In short, extending and providing flexibility for young people to vary and alter career aspirations after school and into young adulthood and beyond, supported by seamless pathways between senior schooling, tertiary or vocational study, and/or employment. Accordingly, the Melbourne Declaration stated that, “schooling should offer a range of pathways to meet the diverse needs and aspirations of all young Australians, encouraging them to pursue university or postsecondary vocational qualifications that increase their opportunities for rewarding and productive employment” (MCEETYA, 2008, p. 12).

The Adelaide and Melbourne Declarations both emphasised the need for relevance in compulsory years of schooling and senior secondary studies, and in particular, the development of a broader range of subject based courses reflective of contemporary industries, student interests and work practices, that link directly to programs of vocational learning or tertiary courses. The Adelaide Declaration stated that students should “have employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning” (MCEETYA, 1999, p. 2).

Consequently, the alignment of vocational, educational, training and school based post compulsory courses, was a major focus of attention for *Our Youth Our Future* with emphasis placed on flexible pathways into and between system and institutions that had previously been prevented due to issues such as subject selections earlier in compulsory schooling. *Our Youth Our Future*, stated:

For the first time, the system will provide for the total age cohort. *All* students, regardless of their achievement at the end of year 10 and/or their post-school intentions will be able to progress toward higher levels of achievement and qualifications within the one structure. The wide range of options available to students will be articulated clearly and provide access to university, training and employment pathways. (CCWA, 2002, p. 40)

A cornerstone of this rhetoric was a staged structuring of units within senior secondary courses (see Figure 1), allowing students to start and finish at varying points depending on cognitive and/or physical abilities or educational and employment aspirations.

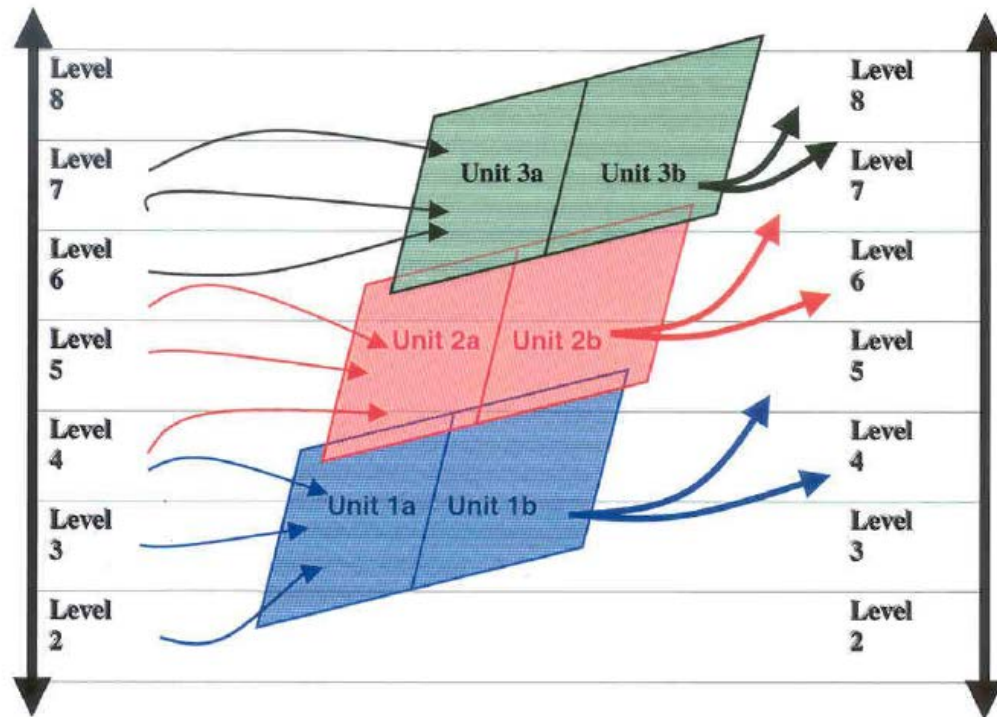


Figure 1. Staged structure of PES units (CCWA, 2005, p. 16)

Our Youth, Our Future explained the staged structuring of units accordingly:

Within each course there will be at least three sets of two-unit combinations. Each two unit combination will be designed with starting points appropriate for students achieving at specific levels on the scale of achievement: for example, one two-unit combination might target students not yet achieving the lower levels on the scale, while other combinations might target those at the mid-range or higher.

Students will have greater flexibility in their choices. They will be able to select a two-unit combination from a course in their first year of post-compulsory study followed by another two-unit combination from the same course in their second year. Alternatively, a student will be able to select a two-unit combination from a course in their first year of post-compulsory study and then change to a different course of study in their second year levels. (CCWA, 2002, p. 43)

The intention was therefore that students would be able to “arrange their learning programs to ensure that options for further studies, training, work and/or community living remain open to them when they leave school” (CCWA, 2002, p. 41), ensuring a seamless transition from compulsory to post-compulsory educational and/or vocational destinations. The new system proposed to articulate and report student progress and achievement in the compulsory years (CCWA, 2002, p. 41) through a mutually recognisable mechanism. This new approach proposed in *Our Youth Our Future*, enabled various post-school destinations (typically TAFE, Tertiary and employers) to make

explicit the standards of achievement required for entry eligibility within a universal system. These proposals further supported the fluid and non –linear nature of the new reforms.

Inclusivity, access, equity and opportunity for all

Prominent in the new direction for senior schooling articulated in the Adelaide and Melbourne Declarations, and then in a WA context *Our Youth Our Future*, were historical concerns with issues of inclusivity, access, equity and opportunity for all. As early as 1989 the Hobart Declaration set an agenda of equality of opportunity and a general tenure of inclusivity. Thereafter, the Adelaide (Goal 3) and Melbourne Declarations (Goal 1), both gave these issues great prominence, linking inclusivity in particular directly to senior schooling and the completion of Year 12 or its equivalent and post school destinations.

Against this national backdrop, the Curriculum Framework of WA (1998) was developed. This document provided direction to curriculum from kindergarten to Year 10 and was underpinned by seven Principles of the Curriculum Framework (CCWA, 1998) one of which, ‘inclusivity’ was prominent throughout and was defined in terms of “providing all groups of students, irrespective of educational setting, with access to a wide and empowering range of knowledge, skills and values” (p. 17). It emphasised and recognised individual learning needs and rates, and acknowledged the importance societal diversity, stating that inclusivity means:

Recognising and accommodating the different starting points, learning rates and previous experiences of individual students or groups of students. It means valuing and including the understandings and knowledge of all groups. It means providing opportunities for students to evaluate how concepts and constructions such as culture, disability, race, class and gender are shaped. (CCWA, 1998, p. 17)

This commitment was extended with ‘inclusivity and difference’ identified as one of seven additional guiding Principles for Learning, Teaching and Assessment in the Curriculum Framework, emphasising that “learning experiences should respect and accommodate differences between learners” (CCWA, 1998, p. 35).

Our Youth Our Future similarly placed a strong emphasis on “A system for all students’ and “Catering for all students” (CCWA, 2002, p. 41). This included providing learning programs based around the aforementioned principles of teaching, learning and assessment in the Curriculum Framework (CCWA, 1998, pp. 33–36) and in particular, ‘Inclusivity and difference’ and learning experiences, that “respect and accommodate

differences between learners” (CCWA, 2002, p. 63). These differences included “a need to cater for the full range of students from the most able to those with disabilities and learning difficulties” and in particular the “needs of students at educational risk” (CCWA, 2002, p. 35). It not only acknowledged that “these students often require opportunities to demonstrate achievement in a variety of contexts over an extended time frame” (CCWA, 2002, p. 35), but also that there will be others who perform better in, or indicate “a preference for shorter learning programs that would meet specific educational needs and interests, particularly for those who were not certain about future directions and who wished to access a wider range of programs’ (CCWA, 2002, p. 35).

Personalised learning

The focus on specific educational needs and interests, through personalised learning was a strong social agenda of the Melbourne Declaration and *Our Youth, Our Future*. Personalised learning is acknowledged as an appropriate vehicle for the recognition of diversity, and is strongly articulated and promoted in *Our Youth, Our Future*, which states that,

The future prosperity and well-being of young people and society as a whole will rely greatly on the skills, knowledge, understandings and values that students take with them on leaving school... Greater emphasis needs to be placed on equipping young people to develop a stronger sense of themselves as active players who have some responsibility for the direction of community life, and who can take a role in decision making about major social and environmental issues and the ethical implications of human activity and knowledge. (CCWA, 2002, p. 15)

The personalised learning discourse had particular significance for PES and is dealt with in greater detail later in Chapter 6, along with the wider issue of inclusivity, access and equity for all.

A Western Australian State flavour

Earlier I acknowledged the overlap between National and State agendas and priorities within these overarching discourse. Attention here turns specifically to WA and *Our Youth Our Future*, which gave these discourse a State based flavour. *Our Youth Our Future* was the result of an extensive cross sectoral consultation and research process, which included the *Post-Compulsory Education Review Discussion Paper* (CCWA, 1999) and *The Post-Compulsory Education Review Position Paper* (CCWA, 2000) and proposed a fundamental system of curriculum, assessment and certification that also addressed a number of State based imperatives and agendas. The most specific of these

State agendas was the extension and alignment of the WA Curriculum Framework (CCWA, 1999) and learning area outcomes from K - 10 into Senior Schooling, which had previously been separate, to provide a “coherent K-12 focus on the outcomes and principles of the Curriculum Framework and a seamless transition from compulsory to post compulsory education” (CCWA, 2002, p. 14)

In terms of the broader senior schooling environment, it articulated WA’s contextualised response to aspects of the national agenda(s) outlined previously in this chapter. Fundamentally, it proposed that “the new post-compulsory arrangements must ensure that all students leave school with foundation skills for life and the capacity for, and inclination towards ongoing learning and adaptation” (CCWA, 2002, p. 14) and:

- includes all students, by being flexible enough to accommodate their diverse learning needs, interests and post-school aspirations;
- provides for a coherent K-12 focus on the outcomes and principles of the Curriculum Framework and a seamless transition from compulsory to post compulsory education;
- makes the outcomes of learning and the standards students are expected to achieve explicit for them, their parents, potential employers and post-secondary institutions;
- provides for the achievement of VET Units of Competency as an integral part of secondary certification, as required by agreements between all Australian jurisdictions;
- enables students to pursue learning outcomes in areas of study that facilitate their transition to work, vocational education and training or higher education; and
- leads to the award of a high-quality certificate that recognises and records students’ achievements when they leave school while encouraging them to renew their learning throughout life. (p. 14)

Summary

This chapter has reported findings arising from Phase 1 of the study, engaging with the recontextualising fields within Bernstein’s framework, and primarily the ORF.

Through documentary review I have established that key official documents such as the Adelaide and Melbourne Declarations, the *Curriculum framework for Kindergarten to Year 12 Education in WA* (CCWA, 1998) and *Our Youth, Our Future* (CCWA, 2002) represented key texts in the ORF and articulated a number of what I have described as *overarching discourse* which provided a policy backdrop to senior school reform in WA.

Essentially these can be characterised as; lifelong learning; inclusivity and access, equity and opportunity for all; personalised learning; the alignment of Vocational, Educational and Training and school based post compulsory courses, and the extension of post school destinations through the development of a broader range of subject based courses; and specifically in WA a number of State imperatives, not the least being the extension and alignment of the *WA Curriculum Framework* (CCWA, 1999) and learning area outcomes from K - 10 into Senior Schooling.

I have acknowledged that actions, negotiations and decisions relating to this backdrop and these discourse(s), within this recontextualising field and in particular the ORF, are critical in gleaning a true understanding of PES in WA in its pedagogic form and specifically ‘integrated pedagogical practice’ that emerged subsequently in the secondary field.

I have highlighted that the relationship between fields (and particularly between the ORF and PRF) is not necessarily linear or sequential. They can be seen as operating to some degree in tandem and with blurred boundaries between them by virtue of common agents and actors. This is one of the features that I explore further in the following chapter, which addresses how the overarching discourse(s) were pedagogically translated in course design and in particular examines the “central focus” on the “integration of theory and practice” (Physical Education Course Syllabus, CCWA, 2009, p. 2). Chapter 6 also directs attention to the local translations of this focus that were made at “intermediary sites” (Hargreaves, 1986) during initial enactment.

Chapter 6

The Design of Physical Education Studies in WA

As established in Chapter 5, the PES in WA was conceived and designed against a State and National socio-political environment, articulated in the National Goals of the Hobart (1989), Adelaide (1999) and Melbourne Declaration's (2008), and in WA through the *Curriculum framework* (CCWA, 1998) and in the context of senior schooling conceptually in *Our Youth Our Future, Post-Compulsory Education Review* in 2002 (CCWA, 2002). This chapter draws on data from the semi-structured interviews and document review, and tells the story of how the new PES in WA was recontextualised against this backdrop of National and State reform. Specifically, this chapter focuses on how the text(s), overarching discourse(s) (referred to in chapter 5), and other related PES specific discourse(s) emerging during recontextualisation played out in course design. Accordingly, attention turns to research questions two and three. This latter question is also dealt with in more detail in Phase 2 of the research and is reported on in Chapters 7 and 8.

Working within the field of recontextualisation and in particular the ORF and PRF sub-fields, the chapter explores meaning making and the ways that the overarching discourse(s) were pedagogically translated, amongst a complex and contested web of course design and enactment. The web variously includes, but is not exclusive to, State ministries, Curriculum Council reference group members and examination panels working within the ORF, and respected Heads of Departments in schools, teachers, principals and parents within the PRF. This story highlights the complex and contested nature of the recontextualising field and the two sub fields, and points to relations between the ORF and PRF being fluid, blurred and cyclical.

As outlined in the Chapter 4, documentary reviews were undertaken supported by semi-structured interviews with key actors in the PES course design and subsequent implementation. The data is presented two-fold. Firstly, in Table 4, I report on PES course specific discourse and texts. Then, by way of a series of narratives related to key discourse(s) featured in the table, I consider compatibility, tensions and pragmatics featuring in the overlapping fields between the ORF and PRF. While I report the data discreetly, the interconnected and interwoven nature of the discourse(s) is outlined, as per Bernstein's fields. It should also be noted that many of these overarching discourse(s) have in part been addressed previously from a broader educational perspective. Here PES

specific discourse within the ORF, as distinct from the other fifty or so new courses designed as part of the senior school reforms in WA, are added to the analysis.

Table 4

Discourse Specific to the PES Course

PES course specific discourse	Document source(s)
The integration of theory and practice, and learning through movement	<i>Physical Education Studies Syllabus</i> (CCWA, 2005, 2006, 2008, 2009)
Personalised learning	<i>Our Youth, Our Future</i> (CCWA, 2002); <i>Curriculum Framework of WA</i> (CCWA, 1998); <i>Physical Education Studies Syllabus</i> (CCWA, 2006); Lead writer; CEO consultant
Senior school PES course content	DoE consultant & Teacher representatives; AISWA Teacher representative; Lead writer
A strong practical focus	<i>Physical Education Studies Syllabus</i> (CCWA, 2005); DoE consultant; CEO consultant
The extension and alignment of the WA Curriculum Framework (1999) and HPE learning area outcomes to PES	<i>Physical Education Studies Syllabus</i> (CCWA, 2005); <i>Our Youth, Our Future</i> (CCWA, 2002); <i>Curriculum Framework of WA</i> (CCWA, 1998); <i>Post-Compulsory Education Review Position Paper</i> (CCWA, 2000); DoE consultant, CEO Teacher representative
Inclusivity and the catering for a range of cognitive and physical abilities and interests	<i>Our Youth, Our Future</i> (CCWA, 2002); <i>Post-Compulsory Education Review Position Paper</i> (CCWA, 2000); <i>Curriculum Framework of WA</i> (CCWA, 1998)

Physical Education Studies course specific discourse

In the following section, I refer back to Table 4 and use the PES specific overarching discourse(s) as sub headings for a series of evidence based narratives, which describe how these were progressed in the ORF, and variously in the PRF. It should be noted that interview sources are referenced using annotations referred to in the Chapter 4.

The integration of theory and practice to be central to the course

The central focus of PES in WA to integrate theory and practice was evident early in the ORF. The CEO Representative on the PES reference group (the group established in 2003 to provide advice and guidance during course development) stated, “I assumed theory

into practice would be the key driver for this course”. Similarly the AISWA representative commented in regards to the integration of theory and practice;

It is the most relevant and legitimate way of doing it. It’s a study of practice and movement at the end of the day. That’s where sports science has gone. I thought it should include labs to teach the theory behind how we move. So yes, integrating theory in and through practical and practice was key for me. You have to see and do some of the stuff you are learning and vice versa. (AISWA Representative)

Despite this emphasis the key discourse was only hinted at during the early syllabus iterations in 2005 and 2006, via reference to Peter Arnold’s (1979) conceptualisation of *learning in, through and about movement* (which has been covered extensively in chapter 2) or what we might call ‘Arnold-like’ terms. For example in the PES Syllabus (CCWA, 2005) there are the statements that:

The emphasis is on learning *through* movement and personalised learning experiences to achieve progress towards the course of study outcomes of *Physical Activity Skills; Self-management and Interpersonal Skills for Physical Activity; Knowledge and Understandings for Physical Activity and Values and Attitudes for Physical Activity*. (p. 5)

The emphasis is on learning through movement and personalised learning experiences. (p. 3)

The phrase “the integration of theory and practice is central to studies in this course” (CCWA, 2009, p. 2) appeared in the syllabus for the first time in 2009, and remains in the current *Rationale* section in the PES syllabus in WA. It states that it:

Contributes to the development of the whole person. It promotes the physical, social and emotional growth of students. Throughout the course emphasis is placed on understanding and improving performance in physical activities. The integration of theory and practice is central to studies in this course. (p. 2)

The aspiration and intent of the course to apply theoretical principles and knowledge to practical contexts was inherent in further introductory comments and course unit descriptions. However, no specific definition of what “integration of theory and practice” means was offered and there are few signposts to this discourse in the unit content, although there are statements that hint at the application of theoretical principles and knowledge to practical contexts, and in essence integrate theory and practice. For example in Stage 1, Unit A the focus is on “the development of students’ knowledge, understanding and application of anatomical, physiological and practical factors associated with performing in physical activities”, while in Stage 3, Unit B the focus was the “development of students’ knowledge, understanding and application of anatomical,

physiological and practical factors associated with performing in physical activities” (CCWA, 2009, p. 5).

Syllabus documents produced within the ORF variously interchanged terminology. Sometimes ‘Arnold-like’ terms are used and referred to, while the terms ‘integrated’ and ‘interrelationships were linked to “theory and practice” in later iterations (CCWA, 2006, 2008). Consequently, the lack of a central definition regarding integration of theory and practice appears to have led to a lack of common understanding and clarity regarding the essence of what these terms mean and the role they play in course design and delivery. For example, the following conflicting views and perspectives were offered by various actors involved in the course development and enactment.

PES is more pragmatic, than Arnold’s “in, through and about”. PES is about knowledge of principles as applied to sporting settings so, for example, they can understand how an elite sportsman might use these. Arnold approach is more complex than this and in short only certain components of this, apply to this course. It’s certainly not the framework around which the course is designed. (Chief Examiner).

I use Arnold as the background for everything I teach, it’s the basis for the course, so everything links to the three parts. Learn the theory via doing, Arnolds stuff. Is that common? I would think so, Arnold’s well known. We use it as an argument all the time. It would be a common definition in our school. Teach through your sports. (CEO teacher representative)

The integration of theory and practice “is open to interpretation. Some schools are doing little practical work full stop, talking about practice yes, but not “doing”. We are not singing from the same song sheet. Definitely not. Integration occurs but the motive is to explain the theory, not to value add to the prac in terms of tactics strategies and understanding in that context. (AISWA representative)

While the early syllabi did not overtly recognise the discourse, the first commercial text (*Physical Education Studies: A resource for Units 3A to 3B*, Heberle & Middleton, 2007), initial written examination papers, and subsequent Chief Examiners reports did contain ‘some’ direct references to the integration and the linkage of theoretical knowledge to practice and practical, for example Heberle and Middleton (2007) state, “It is suggested a tournament or competition with participants taking on roles of player, coach and official be used as the stimulus for theoretical content areas including feedback, cooperation, decision making, ‘frontloading’ grammar?” (Heberle and Middleton (2007, p. 20)

The initial written external examinations were developed with a focus on scenario-based questions. The Chief Examiner stated that:

... the exam tries to link theory to practice. We provide scenarios to try and tempt that out. Theory is understood through the window of a practical example or context scenarios. Few questions ask students to define/describe. We focus on adaptations, changes, responses, solutions to the scenarios. (Chief Examiner)

A DoE representative commented that this approach led teachers towards a more integrated and interrelated approach, but the motive for this may not have been pedagogically based. They stated that:

... [the Chief Examiner] has in recent times referred to the integration of theoretical principles to practical examples in her examination reports each year. Some of that has been to do with the low mean average of PES and her reference that teachers may need to consider pedagogy to support this. Exam questions have led teachers to relate multiple content areas to practical examples and so they have aimed to do this. I am not sure this is true theory into practice, but the focus has certainly led teachers to consider this. (DoE representative)

The move to scenario-based questions, requiring students to analyse the scenario and apply knowledge of ‘multiple’ content areas in the PES syllabus to the situation required teachers to employ a similar pedagogical approach in preparing students for the exam. Accordingly, the suggestion reflected in the above quotation, is that the exam has ‘led’ pedagogical practice.

The practical performance external examination did not ask students to apply theoretical knowledge, concepts and principles to a given situation or reflect on or evaluate their performance. It was purely a practical performance, in which students were required to perform ‘static’ and “dynamic” drills and participate in a conditioned response, typically a ‘game like’ situation. The design and format of the practical examination is discussed later in this chapter.

In regards professional learning (PL) there was no evidence of inputs related to pedagogical practice, be it to support integrated theory and practice or any other approach. The PL for teachers was run by a variety of tertiary, system and commercial providers, and focused on content areas such as biomechanics and exercise physiology. Consequently, course content and a variety of other pragmatic priorities took precedence over pedagogy. The DoE representative stated that:

The practical performance focus was central, as were the pragmatics of time and PD. I was keen to do justice to the “Theory into Practice” focus, but it was a challenge. Needs were diverse, sometimes “Theory into Practice” was a bit too deep. But I went forward with this as my intent.

But the foci were often pragmatic over course aspirations. (DoE representative)

Subsequently, with little specific guidance in the syllabus, the essence of the course to integrate may have been diluted, as teachers' interpretations took teaching and learning on varied pragmatic pathways. Accordingly, the comment is made that teachers typically "taught to the test, as teachers will always do, they are pragmatic animals" (DoE representative).

Personalised learning

Attention now turns to consider personalised learning which was identified in Chapter 5 as a key overarching discourse in the ORF for PES in WA, and one which both the *Curriculum framework* (CCWA, 1998), *Our Youth, Our Future* (CCWA, 2002) and later *The Melbourne Declaration* (CCWA, 2008), articulated through a strong social agenda. *Our Youth, Our Future* highlighted that:

The future prosperity and well-being of young people and society as a whole will rely greatly on the skills, knowledge, understandings and values that students take with them on leaving school... Greater emphasis needs to be placed on equipping young people to develop a stronger sense of themselves as active players who have some responsibility for the direction of community life, and who can take a role in decision making about major social and environmental issues and the ethical implications of human activity and knowledge. (CCWA, 2002, p. 15)

Accordingly, in the initial stages of the course design in the ORF, personalisation was a key driver supported by a focus on the relationship between the self and the course content. This reflected both the policy discourse articulated in *Our Youth, Our Future* and the philosophical approach of some involved in the PES design process. For example, the Chief Examiner stated that:

PE was potentially getting swamped by mechanical aspects of sport. Seeing the sport performer as a biological object and losing the humanity behind it. Hence the need for content to cover a wider range of physiological and social studies, as related to the student themselves and its relationship to their physical activity practices, and personal practical potentials. (Chief Examiner)

In support of this, the Rationale section in the PES syllabus in 2005 stated that, "the emphasis is on learning through movement and personalised learning experiences" (CCWA, 2005, p. 3). The syllabus did not prescribe the specific activity contexts or teaching and learning approaches through which essential content should be taught. The choice of the specific contexts related to this was left to teachers to establish, although

unit descriptions, for example, Unit 1A did highlight that content should be illustrated through “examples of learning contexts within the broad focus of personal participant and participation profiles: learning movement skills; fitness and physical activity; roles and positions in a team; coaching and officiating; cooperation and competition; fair play” (CCWA, 2005, p. 19). While Unit 1B stated, “Examples of learning contexts within the broad focus of extending personal profiles: peer profiling; coaching and officiating; transfer of skills and strategies; professional profiles; pursuing excellence in sport; indigenous sport; gender and sport; disability and sport” (CCWA, 2005, p. 20).

Similarly in Unit 3B the focus was on “Looking to the future” during which “teachers select learning contexts that prompt students to adopt a critical perspective, while looking at their own and others’ future participation in physical activity” (CCWA, 2005, p. 28). Indeed, the focus and use of the term “Personal” (CCWA, 2005, p. 20) is apparent throughout the syllabi and other support materials produced in the ORF between 2005 and 2008.

However, a comparison of all corresponding units in the syllabi from 2009 revealed that the central focus on personalised learning and rhetoric to support this disappeared after this point, to be replaced by a stronger vocational emphasis around career pathways and more intimate linkages to prescribed ‘science’ based content and its effects on students’ own and others’ performance. For example; in Unit 1A, “The focus of this unit is the development of students’ knowledge, understanding and application of anatomical, physiological and practical factors associated with performing in physical activities” (CCWA, 2009, p. 5). While Unit 3BPES stated, “The focus of this unit is to extend students’ understanding of complex biomechanical, psychological and physiological concepts to evaluate their own and others’ performance” (CCWA, 2009, p. 7).

The change in emphasis is interpreted by the DoE, CEO and CEO teacher representative as variously related, firstly, to the status of the learning area outcomes and content linked to these, secondly, academic rigour, and thirdly the external practical examination. The following observations highlighted these interrelated issues:

The status of the learning area outcomes was always suspect. I think many people directly linked “personalisation” and personal profiles with the socio cultural aspects of course. I think teachers and some leaders found both the outcomes like SMS and IPS and the social cultural content equally wishy washy. It was a lack of understanding and when the outcomes went, the perceived link between the two meant the socio cultural content went

as well, and in turn the personal profiles and stuff like that as well. It was almost a case of word association. (DoE representative)

The science lobby was strong. A number of key players made a case for sport science to be the centrepiece of the course. The Socio cultural content was written out and in turn we saw a stronger link to biomechanics and Anatomy and Physiology. This was interpreted as meaning the course was harder and more academically accepted. “Personalisation” got lost in all this and simply meant to many people that students could choose the sport they wanted to do in the external practical exam. (CEO representative)

I understand the desire for the prac exam to reward personal performance, like in Music and Drama. After all, that was a main argument thrown around at the beginning. Music gives credit to ability, so should PE. Making an argument for personalisation based on them choosing whatever sport they like from the 14, even if it’s not studied at school, it’s crazy. Personalisation is about looking at themselves holistically, using themselves as a context. The practical exam bashed that on the head. Again teachers lost the plot and could not see the wood through the trees. The rationale was lost in their “examheads”. (CEO School based representative)

PES course content

The initial 2005 syllabus proposed an intimate link between the ‘Outcomes’ and ‘Content’, and describes “essential content that needs to be the focus of learning programs to enable students to maximise their achievement of the Overarching and Course of Study Outcomes”. Moreover, it stated that, “content areas for knowledge, skills and values are essential to the achievement of outcomes in the *Physical Education Studies* course”. Accordingly, there is a clear triangulation proposed between Outcomes, Content and Contexts (see Figure 2), stating that the “content that facilitates the achievement of outcomes and competencies cannot be achieved in isolation but needs to be addressed within a meaningful context” (CCWA, 2005, p. 12).

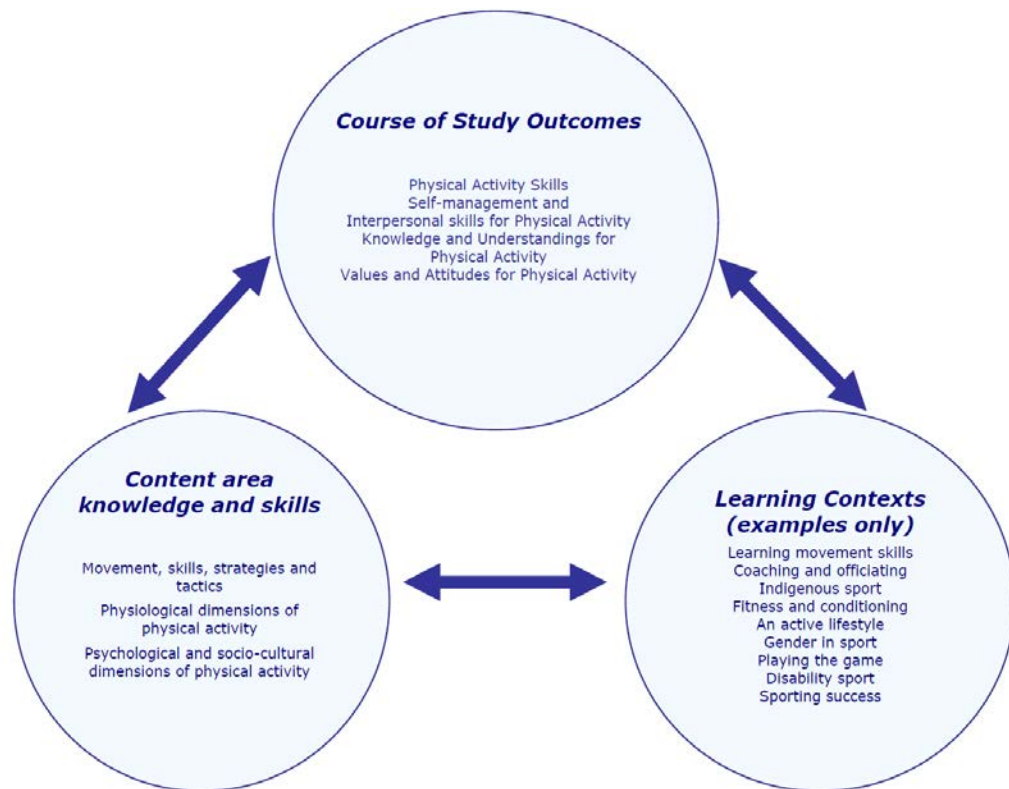


Figure 2. Overview of course of study outcomes, content and learning contexts (CCWA, 2005, p. 7)

The content is described in layers, starting with the “Essential Content” (see Figure 3) before further development of this through the “Elaboration of Content” section (See Figure 4 for an example of the nature of the detail provided). Finally, essential content describing the “degree of complexity” in each individual unit is listed (Figure 5 provides an example from Unit 1A).

Movement, skills, strategies and tactics	Physiological dimensions of physical activity	Psychological and socio-cultural dimensions of physical activity
<p>Participation requires specific movement skills, strategies and tactics appropriate for particular situations. Systematic observation and analysis informs identification of appropriate interventions to enhance participation. Knowledge and understanding of biomechanical principles and concepts, and theories of learning and skill development enable students to undertake increasingly sophisticated analyses of participation. In this content area students should be taught about:</p> <ul style="list-style-type: none"> • developing skills, strategies and tactics • movement principles and concepts • motor learning and instruction 	<p>Physiological systems, capacities, responses, adaptations and principles of training and conditioning play a key role in enhancing one’s own and others’ participation in physical activity. In learning about physiological dimensions of physical activity students should be taught about:</p> <ul style="list-style-type: none"> • energy for physical activity • improving physiological capacity 	<p>Participation in physical activity is a personal, social and cultural activity. Personal, social and cultural factors influence patterns of participation, experiences and achievements in physical activity. In learning about psychological and socio-cultural dimensions of physical activity students should be taught about:</p> <ul style="list-style-type: none"> • individuals, society and culture • interpersonal skills • physical activity and sport in society and culture • decision-making

Figure 3. Essential content, knowledge, understandings, skills and values (CCWA, 2005, p. 12)

Movement, skills, strategies and tactics

Participation requires specific movement skills, strategies and tactics appropriate for particular situations. Systematic observation and analysis informs identification of appropriate interventions to enhance participation. Knowledge and understanding of biomechanical principles and concepts, and theories of learning and skill development enable students to undertake increasingly sophisticated analyses of participation in physical activity. In learning about movement, skills, strategies and tactics, students develop conceptual understandings and skills related to:

Developing skills, strategies and tactics

Exploring the technical, strategic and tactical requirements for participation in particular activities, and addressing the movement skills and techniques that are required to respond effectively to situational challenges is central to students' development as participants in physical activity. Frameworks for understanding tactical problems and appropriate strategic, tactical and technical responses that are associated with different types of activity and varying positions and roles, are examined in relation to a range of recreational and sporting pursuits (including games, target sports such as golf, and activities such as surfing in which the physical environment is a key factor in the challenges for participants). Knowledge of common performance errors from both technical and tactical perspectives and effective correction strategies is essential for improving students' personal competence and their ability to support others' learning and participation.

Movement principles and concepts

Observation, description and analysis of movement are underpinned by movement principles and concepts. Knowledge of functional anatomy provides a foundation for the development of a biomechanical understanding of movement. Biomechanical principles, concepts and laws of motion are explored and integrated through qualitative and quantitative analysis of movement. Understanding of biomechanical principles aids in identifying the critical features of movement and interventions to enhance the quality of movement. This in turn informs the design of effective instruction, the provision of feedback and safe participation in the short and long-term.

Motor learning and instruction

Motor-development pathways, phases of learning and learning preferences inform the expectations that coaches/teachers have of their students. Effective instruction and coaching is pursued via the exploration of how to design appropriate skill practices and set suitable strategic and tactical challenges for individual learners. Coaching strategies and techniques to enhance mental skills. Holistic frameworks for analysing, understanding and advancing learning and participation in physical activities are progressively introduced, challenging students to consider an increasing range of factors influencing participation.

Figure 4. An example of the Elaboration of Content (CCWA, 2005, p. 13).

Movement, skills, strategies and tactics

Developing skills, strategies and tactics: activity classifications linked to a tactical approach. Basic tactical problems associated with specific types of physical activity. Technical development and application of basic skills in implementation of simple solutions to tactical problems presented. Evaluation of personal ability in relation to skill and strategic demands of selected activity.

Movement principles and concepts: functional anatomy and body types; anatomical planes and joint motions; mechanical method of muscle action analysis. The principle of *Range of Motion*: linear and angular motion; functional anatomical analysis; range of correctness. Observing critical features of movement.

Motor learning and instruction: interaction of person, task and environment in the acquisition of motor skills. Phases and pathways of skill learning. Roles of instructors, coaches and teachers. Learning styles and instructional styles. Task classifications. Safe learning environments.

Figure 5. An example of the Elaboration of Content from Unit 1A in the Physical Education Course Syllabus (CCWA, 2005, p. 18)

Within the ORF it is evident that the design of key content to support the integrated course was driven tightly by the template described above and unit-by-unit structure. However, “while the concept of integration led development, some key content was naturally linked to certain learning area outcomes, for example, socio cultural to IPS/SMS” (AISWA Teacher rep). Within the Reference Group, a number of different discourses emerged, these included:

We did not want it to be wholly a sports science course. It was an integrated course. PE was potentially getting swamped by mechanical aspect of sport. Seeing the Sport performer as a biological object, losing the humanity behind it. Hence we needed content to cover wide ranging physiological and social studies. (Chief Examiner & Reference group member)

There was a conscious thought that to over scientize PES would be detrimental to enrolments. A raw science course would not attract students. They’d just go and do a science course. (CEO Representative)

The science lobby was strong, a number of key players made a case for sport science to be the centrepiece of the course. (AISWA Representative)

The influence of University representatives and their knowledge of existing tertiary courses was noted as having a positive influence, with attempts made to provide a seamless transition to these courses. The AISWA representative stated:

Uni reps had a positive influence on the course design and specifically what content should be in the new course. The pathway to tertiary needed to be linked and we specifically did not want students revisiting content in Uni that they had done in school. In fact I do recall us saying that Uni lecturers will need to rewrite courses because a lot of what they do will be taught in schools. (AISWA Representative)

Amidst the contest of thoughts regarding appropriate and desired content, a first syllabus was developed in 2005. This development process was managed by Curriculum Council officers who closely followed the generic template. This template was common to all new WACE courses, and emphasised the integration between Outcomes, Content and Contexts. Despite the rhetoric of integration, which was evident in the course design template, the commentary highlighted here demonstrates an unintended, but nonetheless keen focus on course content, in part influenced by what universities might or might not cover.

During recontextualisation and specifically developments in the ORF between 2005 and 2009, the nature of the course content changed significantly. From 2005 to 2006 the general nature of the course content remained stable, with the only change being that the

unit elaborations were simplified and condensed into dot points, following an initial review. This was further developed in 2008 in the Physical Education Course Syllabus. For example;

Motor learning and coaching

- principle of transfer of learning: training for skill adaptability
- motivational coaching techniques
- detailed observation and analysis to inform instruction and training to improve skill execution and movement efficiency
- matching feedback and goals to learning needs and situations.

Mental skills training

- matching and adapting different types and methods of mental skills training to individual needs and activities• application and evaluation of selected strategies to enhance mental skills
- refinement of strategies to match situations and individual needs and encourage positive participation behaviours. (CCWA, 2008, p. 18)

However, in 2009, following the abandonment of OBE by the Ministry of Education in WA and a move to a content-objectives focus created by the departure of outcomes, the approach to the way assessment and course content was viewed changed. Significantly, the content area titled “Psychological and socio-cultural dimensions of physical activity”, including “Individuals, society and culture”, and “Physical activity and sport in society and culture” (CCWA, 2005, p. 15) was omitted, and the syllabus emphasised that “the course content is the focus of the learning program” and that assessment should focus discretely on this.

Accordingly, the 2009 syllabus divided course content into six content areas, these included: developing physical skills, strategies and tactics; motor learning and coaching; functional anatomy; biomechanics; exercise physiology and sports psychology. Meanwhile, assessment guidance and advice directed teachers to design tasks that addressed individual content areas.

The changes to content and assessment protocols were interpreted variously, with some feeling that the move away from socio-cultural dimensions and a stronger link to biomechanics, anatomy and physiology, meant “the course was harder and more academically accepted” (CEO representative). Conversely DoE teacher representatives commented that “we’d been seduced by the technical language of biomechanics” (DoE Teacher representatives).

A strong practical focus

From the earliest point within the ORF, there was a strong practical discourse in the PES. Data from the semi-structured interviews highlighted that this discourse was at the forefront of thoughts and discussion in the PES Reference group. For example; “it was important for all sorts of reasons that practical performance was part of this course” (DoE Consultant); “it was a question of what would captivate students” (CEO Consultant); and “I advocated for the course to link theory to practical sport” (CEO Teacher representative). A desire to support Specialist Sport programmes (DoE representative) and the pragmatic perception of “No sport, no kids” (DoE representative), were also expressed.

The previous non-tertiary entrance course, which enjoyed strong enrolments, had a clear practical focus, which was seen as essential in attracting students to the new PES course.

A CEO representative commented:

We wanted to provide something for all those proven practical performers who previously had to do subjects that they did not really want to do, because PE was not TEE. We were only going to be able to do that if practical performance was part of the course. The practical had to be inherent within the course and focus on physical activity as a basis for learning. Just playing sport alone was not sufficient in its self for the higher achievers, that might be ok at stage 1, but not higher up for the guys who wanted to kick on later and who had career aspirations in the industry. (CEO representative)

Parallels to other performance-based courses, such as Music, Dance and Drama were commonly drawn on to emphasise the importance of the practical components inherent in those subjects, and to legitimise and provide an argument for rigour in the course. For example, an AISWA representative commented:

I heard lots of analogies back to music, with a study of theory and showing practical skills as well. It was almost a validation/justification for practical. What if I am a hockey player, tennis, etc. In music you have a flute, piano, etc. It's a justification. (AISWA representative)

In this context the links between practical performance/physical activity and broader theoretical understandings, as in these other courses, were crucial; “a theory and practical link was important to me and I think to the schools I represented. It was important to give them the opportunity to show skill and their broader understanding in the area, as per Music. (AISWA representative)

Accordingly, the 2005 and 2006 PES syllabus referred to physical activity acting as a “context for learning” and “learning *through* movement” (CCWA, 2005, p. 5). A strong

link to performance, physical activity and personalised learning was made and articulated within course documents prior to 2008. The emphasis was on the use of contexts such as “elite training programs, physical activity for health and wellbeing, injury rehabilitation and training, exercise adherence, participation and performance, training programs for coaches and officials, and junior training programs” (CCWA, 2006, p. 21) as the basis for teaching and learning. This emphasis on a strong practical focus was further supported by reference to recognised pedagogies such as *Sports Education* and *Game Sense* (p. 22) as potential vehicles for the students to “apply decision-making, movement, strategic and tactical skills to enhance personal participation in physical activity” (CCWA, 2005, p. 8). Interestingly, there was no list of practical sports in the first two PES syllabuses (2005 & 2006) and no reference to an external practical examination is made in PES syllabi prior to 2008. The 2005 syllabus referred to students having the “opportunity to undertake external assessment based on the course assessment types, including a digital portfolio of performance and a written paper” (p. 32), although by 2006 the advice is that “the Curriculum Council will commission work to determine assessment procedures that will apply for 2008 and beyond” (CCWA, 2006, p. 7)

Significantly, the nature of what would be considered to be the practical component of course assessment and what would be theory was under consideration at this time. Decisions related to this after 2008 affected the design of the external practical examination and subsequent approaches to how it was addressed in schools. The first practical examination took place in 2009, three to four years after the first published PES syllabus. This practical performance examination in WA was the only external examination of its type in Australia. The formation of the examination text was located in the ORF, but was influenced by agents in the secondary field, including a survey of the most common sports taught by schools, which in turn formed the basis for what sports would be examined. This culminated with fourteen sports being made available for external practical examination. These sports were: AFL, Badminton, Basketball, Cricket, Golf, Hockey, Netball, Soccer, Softball, Squash, Swimming, Tennis, Touch and Volleyball. While students had the choice of fourteen sports to show performance capabilities in the external practical examination, it is important to understand that the choice of sport by the student for external purposes was not always the same as the one studied at school. The course allowed flexibility and school-based autonomy in relation to choice of sports from the list of fourteen.

The subsequent practical performance examination required students to attend an 'Examination Centre' on a given day and to perform prescribed 'Static', 'Dynamic' and 'Conditioned' skill based drills and activities. Skills and responses were videoed and then marked at a later date. Notably, the examination process did not question students about the intentions of their strategic response, nor did it require them to adapt responses to changing circumstances. CD based exemplars (CCWA, 2008) of the drills to be used in the examination (in each sport) were provided by the Curriculum Council to schools.

The practical examination format and development of CD-based support material appeared to have signalled a significant shift in approaches to 'practical', 'physical activity' and 'performance' in the PES context. This shift was explained by the interviewees as:

Once the practical examination was on people's radar, the notion of 'practical' changed to mean purely performance, and the term physical activity dropped off the side of a building somewhere. The arrival of support materials changed the way practical was viewed. Now it was about performance and using your practical lessons for improving raw performance, linking theory got lost. It was about getting kids over the line in the practical exam. (CEO Teacher representative)

In terms of my teaching, Once upon a time I thought it was important to focus on tactics / strategies. But this is not useful in practical exam. Now we focus on skill drills and we "drill it", foot arm position. To bluff. If your arm position was like this, it's better, it looks like you know what you are doing, to finesse. It's exam technique in the same way as the theory exam. We spend probably 60% of our practical time dedicated to skills and 40% to conditioned responses. Just what is the point? Should we have a practical exam, does it confuse matters, does it clarify anything? (AISWA Teacher representative)

While teachers were still encouraged to use practical teaching and learning contexts that would best illustrate theoretical concepts, the practical examination assessed skills and tactics in performance only. Students were not asked to apply theoretical understandings to that performance. Not even in the written exam. (DoE Teacher representative)

Data from the case study schools (see Chapters 7 and 8) also provided evidence of some push back against this approach in the secondary field as teachers began to form pedagogical arrangements for teaching practical performance:

I'll be a bit moral here. I refuse to lower myself to teach drill, drill, drill for two years. At the moment the kids do ok the way we do it. Some pass, occasionally some fail. Our results are not ivy league, but acceptable. (Mike at School 3)

Chapter 7 further explores responses from teachers in the case study schools.

The extension and alignment of the Curriculum Framework (1999) in PE studies

The extension and alignment of the senior school environment to the existing K – 10 *Curriculum Framework* and learning area outcomes was a major imperative of *Our Youth, Our Future* (not only in HPE but across all Learning Areas) and was a key overarching discourse during the field of recontextualisation, and in particular the ORF. *Our Youth, Our Future* stated, “The Council is committed to maximising learning outcomes for students through a seamless focus on outcomes from kindergarten to year 12, as expressed in the *Curriculum Framework*” (CCWA, 2002).

The CCWA provided Reference Group members and writers with a course design template, which emphasized the role of learning area outcomes and alignment to these as a basis for course content and assessment. Accordingly, the PES outcomes were designed in the ORF by the Reference Group through the writing team to indicate the close relationship to HPE within the WA *Curriculum Framework*. The 2005 syllabus stated that:

The Physical Education Studies course of study will enable students to further their achievement of the following Curriculum Framework Outcomes: Skills for Physical Activity, Self-management and Interpersonal Skills for Physical Activity, Knowledge and Understandings for Physical Activity and Values and Attitudes for Physical Activity. Through engaging with this course of study, students also have the opportunity to further their achievement of all aspects of the Curriculum Framework Overarching Statement. (CCWA, 2005, p. 4)

During the early stages of the recontextualisation of this particular overarching discourse, an argument (DoE Consultant, CEO Teacher Representative) was made that PES outcomes needed to be distinct from the HPE learning area outcomes, to represent PE rather than HPE and to signal a change in the nature of content and contexts. For example “the argument was made that Self-Management Skills (SMS) and Interpersonal Skills (IPS) were integrated. At this level a student demonstrating quality IPS in turn displays good SMS” (DoE Consultant).

More broadly the linkage between the proposed new senior school PES course and the HPE learning area outcomes appeared to be accepted as a credible connection. For example, interviewees commented that, “the outcomes legitimised my thinking about how I saw the course. They provided balance. It was difficult to challenge the notion of a balanced social and natural science and holistic course content” (Lead Writer); and “it

seemed a natural progression. We had been asking the question why no K-10 link to the TEE since 1998, so it just answered that” (AISWA representative).

The arguments that the Curriculum Framework and PES should link through/via the learning area outcomes appeared broadly accepted, as Health Studies and Outdoor Education Studies would make the same argument. However, there are signs during the ORF that all was not well and that some concerns were emerging:

At this stage no one was going outside the room to tell the profession how this course would look. Ultimately they did and that didn’t go well with regards the socio cultural content. (Lead Writer)

Three (SMS, A&V and IPS) of the five were always there of course. It was difficult to make an argument against them being part of the course. All on paper had equal weight. The elephant in the room was that we all knew that SPA and KU were the most important. It was an unsaid. But there was an underlying hierarchy in them. It was always going to come to head. (CEO representative)

In 2005 the PES Outcomes formed the basis for course design and assessment, as was the case in the K-10 curriculum framework. However, analysis of PES Syllabus between 2005 and 2008 (see Table 5) reveals that changes were made to the course outcomes in the ORF. Here we begin to delve into data that pertains to influences in (and of) the PRF, and thus, the blurred boundaries between the two recontextualising fields.

Table 5

Variations between the HPE Learning Area and PES Course Outcomes

HPE Learning Area Outcomes	PES Syllabus 2005	PES Syllabus 2008
Outcome 1 <i>Knowledge and Understandings</i>	Outcome 1 <i>Physical Activity Skills</i>	Outcome 1 <i>Skills for physical activity</i>
Outcome 2 <i>Self Management skills</i>	Outcome 2 <i>Self-management and Interpersonal Skills for Physical Activity</i>	Outcome 2 <i>Self-management and interpersonal skills for physical activity</i>
Outcome 3 <i>Interpersonal skills</i>	Outcome 3	Outcome 3
Outcome 4 <i>Skills for Physical Activity</i>	<i>Knowledge and Understandings for Physical Activity</i> Outcome 4	<i>Knowledge and understanding of movement and conditioning concepts for physical activity</i>
Outcome 5 <i>Attitudes and Values (CCWA, 1998)</i>	<i>Values and Attitudes for Physical Activity (CCWA, 2005)</i>	Outcome 4 <i>Knowledge and understanding of sport psychology concepts for physical activity (CCWA, 2008)</i>

The progress of the Attitudes and Values outcome (one of five learning area outcomes in HPE K - 10, but significantly the only one that was not formally assessed) is a significant example, ultimately resulting in its omission by 2008. Political lobbying by a group of respected and long standing Heads of Department working within the PRF “contributed to questions being raised at a high level” (CEO representative) in the ORF, regarding the credibility of the PES Values and Attitudes for Physical Activity outcome and socio-cultural dimensions of physical activity content area that was perceived to be associated with it. It was reported that the Values and Attitudes outcome “lacked clarity” (DoE Consultant), and was “unfocused”, “non-scientific and lacked rigour”, moreover “kids didn’t get it” (AISWA Teacher representative), “the literacy of sociology was difficult for students to access” (CEO Teacher representative). Moreover, the Lead Writer stated that:

Socio Cultural stuff was challenging. IPS and SMS in K – 10 had never really been established. Lip service was paid, but now they were accountable. I am not sure Teachers, and I am talking very generally here, but I am not sure they really took time to consider the essence of the content. It was attached to the SMS/IPS outcome and that pigeon holed it.

The integrated nature of this content was never realised. In this regard the outcomes did not do us any good. (Lead Writer)

The Lead Writer reported that as early as 2003 he wrote a paper for a Curriculum Consultants Professional Development day, considering the role of Values and Attitudes type outcomes across the whole suit of new courses. He demonstrated that such outcomes “can’t and shouldn’t be assessed”, a position that was “accepted” (Lead writer) and supported by the fact that the Values and Attitudes outcome in K – 10 was not assessed formally. The DoE consultant raised the issue of assessment in regards Values and Attitudes as an issue for PES (DoE Consultant), and consequently “by 2007 ish Values and Attitudes disappeared as it was perceived as difficult to teach and assess, and was just problematic for all” (DoE Teacher representative). Ultimately, in 2008, as a result of these powerful influences and “accepted” issues working within the PRF, changes were made within the ORF with two new outcomes introduced to the PES syllabus reflecting specific content at the expense of the Values and Attitudes. The Knowledge and Understandings outcome was reshaped and extended, and Outcome 3 became *Knowledge and understanding of movement and conditioning concepts for physical activity*, while, Outcome 4 became: *Knowledge and understanding of sport psychology concepts for physical activity*. A source comments, “the linking of content headings overtly to learning area outcomes signalled a significant shift in thinking away from context(s) to content based teaching. To me that was an important decision and I think my thinking changed there” (CEO representative).

Surprisingly, in light of the desire to align senior school courses to K-10 and the important role outcomes had in the design of the course, there was little evidence to suggest that they feature as significant components in the design of curriculum and pedagogic plans in the PRF or at school level in the secondary field of reproduction. The pragmatics of teaching content seemingly took over, with a number of content areas and other priorities taking precedence, most notably Biomechanics and the external examinations. An AISWA representative commented:

I think the content was fine but the whole issue was hijacked by biomechanics and then assessment issues, mainly because the outcomes and levels were still unclear in K – 10. So you could see from the start, while the course itself was sound, the focus would be on a number of issues that could hijack initial conversations. (AISWA Teacher representative)

Furthermore, the outcomes did not appear to have played a role in the examination brief and design. The Chief Examiner stated, “I do not recall the examination being part of

those conversations, other than at some time it would be part of the process” (Lead Writer). Evidently, the planning of external examinations did not start until the second year of implementation, at which time, although the four PES outcomes were front and central in the rhetoric within the syllabus, it appears “the outcomes were never part of our examination planning” (Chief Examiner).

The alignment of learning area outcomes to PES was ultimately terminated in 2009 with the political decision through the Minister for Education to abandon levels, and in particular assessment and reporting through learning area outcomes, in all senior school courses. A number of data sources refer to this being linked to a general lack of understanding (by various parties including principals, teachers, students and parents) about how levels would be articulated in senior school, in particular how this would relate to K – 10 and university entry. A DoE representative explained:

There was some confusion because in reality the levels were poorly understood in general in lower school, even though in theory they should have been being used by schools for nearly 10 years. But there weren't. There was mixed messages about levels 5 to 8 and where senior school started. A, B, C was well engrained, so I think amongst the confusion the Government took the easy option and just reverted to what everyone knew. Which was of course a bit of a nonsense because the course were designed with the outcomes based education in mind. (DET representative)

An AISWA representative commented that, “once that came out that was it, they went and did not feature again. There was no reason, it was just one complication gone and out of the way” (AISWA Teacher representative).

While significantly influenced by various actors and agents (HOD's and teachers) and/or competing discourse (for example, questions about what was considered relevant content, and the nature of assessment in senior school) working within the PRF, all the various changes identified in this section relating to the extension and alignment of the senior school environment to the existing K – 10 *Curriculum Framework* and LAO'S were made in the ORF.

Inclusivity and catering for a range of cognitive and physical abilities and interests

In Chapter 5 I established that PES in WA was conceived and designed against an International and National socio-political environment, articulated in WA through the *Curriculum framework* (CCWA, 1998) and *Our Youth Our Future* (CCWA, 2002). These included aspirations towards the inclusivity of cognitive and physical abilities, varied interests, disabilities and access and equity for all, to a range of tertiary entrance and

employment opportunities. At the forefront of this was the fifty or so new, and revised, senior school courses available to students, including PES, Outdoor Education and Health Studies, which reflected a diverse range of interests not previously catered for.

The initial 2005 PES syllabus clearly put issues of inclusivity and access and equity for all, front and central, stating that:

The Physical Education Studies course of study is inclusive of general and vocational education. That is, the course outcomes provide unifying ideas and purposes for learning that are intended to cater for the full range of student achievement in years 11 and 12. (CCWA, 2005, p. 4)

In addition, that “the Physical Education Studies course of study will appeal to a broad spectrum of students, with varying backgrounds, physical activity knowledge and dispositions, including students with disabilities” (CCWA, 2005, p. 5).

This priority for inclusivity was highlighted by members of the Reference Group, who confirmed that contemporary views of inclusivity were key items for discussion during the conceptualisation of the PES course. The DoE Representative recalled:

For the DoE the priorities were to create a new Post Compulsory system that reflected the vast array of schools, students and communities that we have. Impossible, I know but that meant it had to be flexible and inclusive, with lots of in's and out's built in. In the case of PES that meant range of abilities, disabilities, sporting interests, etc. Plenty of our kids have an interest in PE but are not planning to go to uni, so it all needed to be open enough to cater across all cases. So it needed to be practical, inclusive, flexible assessment and have VET links. (DoE representative)

Meanwhile, the AISWA representative stated:

There were lots of references in discussion to coaching and ways of learning. Not so much about practical assessment as such. We saw this as an opportunity for all to 'have a go', even if they were not great sport people. We have many schools with students with disabilities, it would provide great opportunities for them. (AISWA Representative)

Interestingly, however, the CEO Representative observed that this focus on inclusivity was:

Not a priority as I recall, but it was inherent in the template provided by Curriculum Council, which pointed you in those directions. But I don't recall it being at the front of the process or discussions about the workability of the course, such as support needed, assessment, how the practical exam would work for those with disabilities. I guess the reference group was empty canvas stuff, not operational. I think that came back to bit later. (CEO Representative)

The universal template for all new course design, provided by the CCWA, had a number of inherent features that supported inclusivity and provided for a range of abilities. The 2005 PES syllabus explains this design and offers the following statement (it should be noted that this statement was supported by a diagram, see Figure 1 and was included in all new courses):

To cater for the full range of students, six units have been developed. The units are guides to programming designed with starting points appropriate for a range of student achievement levels; these have been identified as suggested entry levels. To provide continuity and coherence across a two-year course, each pair of units is designed around the same essential content areas, which increase in complexity from one unit to the next. Each unit allows students to achieve all four of the course outcomes. This means that a school can offer the course at the level of complexity that best suits its student population, and teachers and students have the flexibility to undertake learning activities appropriate to students' needs, interests and/or post-school destinations. (CCWA, 2005, p. 16)

The Lead Writer confirmed that the template:

... was a constraint, but a positive one in some regards. I took on board discussion points and started putting them into the template. I think the template forced us to consider the scope of content and how that might look in the different units, and what themes might support that. (Lead Writer)

Similarly, alignment to existing levels of achievement from the *Curriculum Framework* and staged units including flexible entry and exit points, were important features of the PES course. The CEO Teacher representative recalled:

I certainly remember thinking that we are going to have all sorts doing this course, the old Wholly School Assessed kids and then some of the traditional TER kids. Some would be coming in at Level 7 already, other hardly on the scale. I was conscious that the content and assessments had to encompass a pretty broad range of student. I was very aware that the staged units were going to have to be well crafted to allow all abilities to find a home somewhere. (CEO Teacher representative)

From 2008 Provisional or "P" units and Units 1C/D were introduced. These allowed for a further extension of the varied entry levels and subsequent achievements. While the P units were universal to all courses across senior school, 1C and 1D units were only introduced where the need was identified. A CEO representative commented that:

In PE we soon realised that the entry point at Unit 1A was way too high for many, especially for those students with learning challenges. The P units were soon on the agenda and within a couple of years they were introduced, as well as the 1C and 1D which provided a non-TEE route through the course. While good for the students it was the start of the end

for the whole flexible staged system. Effectively we were already back to TEE and non-TEE already. (CEO representative)

The P units aimed to provide “opportunities for practical and well supported learning to help students develop skills required for them to be successful upon leaving school or in the transition to stage 1 units. The content is notionally pitched at Foundation and levels 1 and 2” (CCWA, 2008, p. 5). For example the initial Unit PA in 2008, focused on “personal awareness in physical activity” and stated that:

... this unit is particularly suitable for students who are working to develop a basic repertoire of fundamental movement skills and an understanding of basic health knowledge associated with physical activity. The unit is particularly suitable for students who are working in integrated programs and/or workplace learning programs. (CCWA, 2008, p. 11)

Likewise, the new 1C and 1D units were aimed at students who were working in integrated programs and/or workplace learning and provided “bridging support and a practical and applied focus to help students develop skills required to be successful for Stage 2 units” (p. 5). While further catering for all abilities, it at the same time created two systems and an environment that essentially put a halt to much of the flexibility built into the initial design. The DoE teacher representative commented that:

... IC and ID were great ideas, a very practical initiative, they undoubtedly filled a gap. Stage 2 was beyond many, but thereafter few even if capable, went onto stage 2 from there, unless they were definitely uni bound. Most just went 1A, B, C and D. (DET Teacher representative)

A key feature of inclusivity articulated in the initial course design was that teachers were encouraged to identify practical contexts that would support engagement with essential content, as related to syllabus content. The 2005 PES syllabus stated that to “ensure maximum flexibility, teachers can select the most appropriate learning contexts to cater for the needs and interests of their students within the constraints of school resources” (CCWA, 2005, p. 12).

Consequently, there is evidence that factors such as cultural, ethnic and geographical interests did play a role in course design:

We certainly played to the “English” audience we have and used soccer and rugby context and examples quite a lot. It’s what they know so in some way it provides short cuts to understanding, especially with our soccer programme kids. (DoE Teacher Representative)

I think it’s fair to say that this is one feature that all school took up as stated in the syllabus. Just using sports and activities that interested the students, not just in practical performance classes, but to help understanding in

theory classes as well. It helped some of our less able academically use their strengths of practical as well. It allows them to get some runs on the board, because later with the exam they often come up desperately short.
(DET Consultant)

These key elements of choice and flexibility were also afforded students in the external practical examination, which initially allowed students to present for examination in any sport they wished as long as it was affiliated with the Australian Sports Commission (ASC). “Candidates submitted portfolios that were marked by the Chief Examiner and experts in the chosen sport” (CCWA, 2008, p. 82). Prescribed and non-prescribed sports were examined in what turned out to be a very timely and expensive exercise costing \$348 per student (p. 84). Thereafter students were still afforded choice, however only from the prescribed list of 14 sports listed in the syllabus. Accordingly students could present for the external practical examination in a sport that had not necessarily been studied at school. This did create some problems with consistency of marking as teachers were still required to provide a school based mark for practical which would typically be the sport studied at school.

The rhetoric of inclusivity was strong in the PES syllabus from 2005 through to 2009. From 2009, following the demise of OBE and the move towards ‘practical performance’ rather than ‘practical contexts’, the emphasis changes, including for example, the phrase “including students with disabilities” (CCWA, 2005, p. 5) disappearing from the rationale of the PES course syllabus. However the features of choice and flexibility regarding practical contexts and practical sport for the external practical examination remained.

Summary

This chapter has focused on how the broader overlapping National and State key overarching discourse(s) and PES specific discourse emerging in the recontextualising field(s) were pedagogically translated into official text during the PES course design within the ORF.

Accordingly, attention turned to *why* there was a particular “central” focus on the “integration of theory and practice” in the ORF, and begins to report on *what* texts and translations of the PES’ central focus to integrate theory and practice, have been made during initial enactment in the PRF and subsequently the secondary field.

Working within the ORF, the narratives in this chapter illustrate that the representatives on the PES Reference group were key agents, making selections from the discourse to

design the official PES curriculum. The data presented has established that in most cases the various overarching discourse identified in Chapter 5 can be tracked within the ORF. However, over time discourse relations overlap between the ORF and PRF combining to change the status and expression of a discourse, and illustrating the blurred boundaries between these two fields, an issue that is explored in Chapter 8 and 9. Examples of these include the meaning of ‘integration of theory and practice’ and personalised learning in relation to PES. The data reveals that key agents in the PRF also included respected and influential Heads of Department, and textbook writers. These agents in the PRF engage in typically, contextual and openly political changes relating to, for example, external assessment and the status of certain learning area outcomes. Consequently there were significant changes in both the ways in which these and other discourse were expressed in the official course text and furthermore, in interpretations of that text.

In relation to the central focus of the PES course to integrate theory and practice, there was a strong narrative in the ORF amongst members of the reference group and initial course syllabus documents, especially in the rationale, other introductory comments and course unit descriptions. The rhetoric almost hints of a rather simplistic belief or assumption that ‘of course this course will integrate theory and practice’. Nonetheless, the syllabus (especially later drafts post 2006) did not contain sufficient content linkages and/or guidance and advice to support this emphasis. Features such as common language, definition of terms and assessment advice are bland or non-existent. Hence alignment between key messages in the course rhetoric, and content and assessment was questionable and in some instances, clearly lacking.

In the PRF the focus on the message of ‘integrated theory and practice’ became distorted and diluted. Amidst an apparent lack of conceptual understanding, the focus was on an alternative trajectory, with for example, the term ‘practical’ becoming fairly exclusively related to ‘practical performance’ rather than an essential learning context, and pragmatic issues taking precedent. A complex, contested and fluid relationship between policy-making and often-contested course design intentions was, therefore, very evident. Individual actors and agents in the ORF and PRF (and in some instances, spanning these fields by virtue of multiple roles,) contested and negotiated the meaning of certain discourses amidst changing structural and political conditions in WA and nationally.

As established in the Chapter 2, Penney and Evans (1999), MacPhail and Halbert (2005), Thorburn, Jess and Atencio (2009), Thorburn and Horrell (2011) and Penney (2013) amongst others have similarly highlighted, in other contexts, the slippery nature of text

and the influence competing texts and priorities can have on the pedagogical and curriculum practice. Similarly, the issue of context was an important one in this study. As acknowledged earlier, Ball and colleagues recently emphasised, “policy creates context, but context precedes policy” (Ball et al., 2012, p. 19). I emphasize the need to consider the data presented as reflective of specific contexts and simultaneously generative of contexts for ongoing interpretation and engagement with the new PES. Textual issues at play in Bernstein’s recontextualising and secondary fields are thus also clearly contextual in the sense that they generate and limit possibilities for discourse amidst ongoing interpretation. The PES course text is a document that will, can and was given multiple meanings by teachers in schools across WA. The negotiations and translations reported to this point were generative and influential in relation to the discourses that teachers would see, recognise and regard as legitimate and/or important to engage with as they give the PES meaning via the development of school curriculum and pedagogical practice. Accordingly, attention now turns to further actions within the PRF and in the secondary field. A series of case studies sought to gain a better understanding of the ongoing interplay between official texts and contextual influences in PES, and in particular, pursued the translations and integrated ‘theory and prac’ pedagogical practice emerging from enactment of the PES in schools.

In the next chapter attention turns to findings from a series of case studies that focused on the ways in which the notion of ‘integrating theory and practice’ in the PES was developed during enactment, and specifically, what pedagogic practice emerged as an expression of this ‘integration’ in schools.

Chapter 7

“Local translations” during enactment

The preceding chapters have provided a backdrop to Phase 2 of the study, which explored local translations of PES during enactment in the *Secondary Field* (see chapter 3). This chapter presents findings from a series of case studies that focused on the ways in which the notion of ‘integrating theory and practice’ in the PES was developed during enactment, and specifically, what pedagogic practice emerged as an expression of this ‘integration’ in schools.

The following case study reports use the texts and discourses identified in Phase 1 (outlined in Chapters 5 and 6) and the semi structured interview questions, as a framework for organising and presenting the data. Data relating to each of the case study schools is presented separately and organised using the following structure. This organisation acknowledges the significance of individual school contexts (Ball et al., 2012; see Chapter 2) while also providing a foundation for comparative analysis across cases. The case study reports are organised as follows based on interview questions.

- The philosophical approach to PES, including the role of personalised learning and inclusivity; and alignment to the WA Curriculum Framework
- An understanding of the phrase ‘the integration of theory and practice’
- The promotion of ‘the integration of theory and practice’ through the PES syllabus
- The role of integrated theory and practice in unit planning
- Integrated theory and practice in ‘practice’
- Integrated Theory and Practice and the ATAR ‘external written examination’
- The role of ‘practical’ performance in the teaching of syllabus content
- Resources and texts used in the teaching of PES
- The PES unit outline
- Assessment outline
- Case study summary

Case Study School 1

School 1 was an Anglican Christian High School, with an approximate enrolment of 800 students (Years 7 – 12) annually. At the time of this study, PES was offered in Year 11 and 12. There were two classes of PES in Year 11 and one in Year 12, with approximately 75 students enrolled across both years.

The teacher who was interviewed for the case study (and who provided resources and materials), will be referred to as 'Tom' and had 4 years' experience of teaching PES in WA since 2010. In total Tom had been teaching HPE for 8 years having come straight to the school from university. He described himself as 'Second i/c' in the department, with specific responsibility for senior school courses and inter-house activities. Tom taught all three classes of PES at the school in years 11 and 12, hence senior school teaching took up the majority of his timetable. He attended CCWA (SCSA) consensus and moderation meetings biannually, and had attended two other PES professional learning events in his four years of teaching the course. Otherwise Tom had little contact with other schools or networks in the context of PES.

The philosophical approach to PES

Tom believed that "the best job I can do is to get them a good ATAR score". He clearly felt some pressure in teaching a high stakes senior school course, stating that "it's a newish subject in the school and I need to get scores to keep it going". Nevertheless, he was comforted by the fact that, "the students are quite bright, they're almost handpicked. Our admin will not let students do subjects that they have no ability at". A key consideration in the teacher's approach was that the "students are very sporty". He commented that, "most of them do well at practical because they play sport outside, so I need to acknowledge that and ensure that they can use those skill and interests".

It was evident that while practical performance was a central consideration, it did not play a large part in plans for teaching, learning and assessment. This can be seen in the teacher's acknowledgment that students would select their own sport for the ATAR practical performance examination, with large numbers not using the school-based practical for the external examination. Accordingly, Tom stated that, "for me the actual practical exam stuff is almost a done deal" and that it is largely up to his students because they "are fairly independent in preparing for this at their various clubs". Tom believed that this feature "allows me to be inclusive of all abilities and personalise the course". However, other than the practical performance choice, students followed a common programme and students with particular needs or interests were dealt with on a case-by-case basis, through the school's academic support programme.

Tom believed that "PES is a practical course", stating that "the 'practical' in the course is in teaching content or the theory, through practical". The commitment to this was evidenced in the teachers comment that, "I put a lot of store in doing practical based

teaching” although he is “not sure if what I do is theory / practice, but it is based on practical doing and observation to demonstrate some of the content we do in class”. Tom made specific reference to the fact that this approach was sometimes compromised by a “big syllabus” with “lots of content” and there simply was not time to do everything in this way

Tom correctly understood that initially the PES course was designed to align to the WA Curriculum Framework, and the HPE learning area outcomes (see chapters 1 and 6). However, they expressed that this only played a small part in influencing the planning of the course. This can be seen in his comment that “I don’t think too many people take much notice of the HPE outcomes now. I only use them to balance types of assessment in my schedule. Other than that the outcomes have no place”.

An understanding of the phrase ‘the integration of theory and practice’

Tom understood the phrase ‘integration of theory and practice’ as meaning, “theory is the content of the syllabus in this course, practice or practical is activity that supports the students understanding and motivates them to learn”. For the teacher the integration of theory and practice was the “flip flopping between theory and practice”. He went on to say,

In our practical sessions I flip flop between different aspects of what we have learnt, by using teachable moments from the practical class. Sometimes I set this up, other times I just use examples from the practical session as it happens.

Tom’s approach to “flip flopping” had a clear pedagogic frame and intent. This was apparent when he detailed the approach, explaining;

So I’ll stop the play, and use that as an example to recall or illustrate a theory point. I have to prompt them obviously, so getting my questions right are important. I might ask them to recall a biomechanics principle we have worked on, and then relate that to what has happened, and then extend that by applying it to a training principle or how we learn, and so on. It gives focus to the practical.

Importantly for Tom this approach was “quick and easy” with “no specific planning” required and allowed him to ask students, “do you remember such and such from last week’s game of tennis or whatever”. Tom elaborated this understanding by linking the approach to the students’ experiences outside school and in their community sport. He explained,

... a lot of my students play sport at club and community level, some of them to a good standard, I've got a state swimmer, colts footy player, and a couple of girls who play a good standard of Netball. They look at their performance on video all the time, especially the swimmer, their coaches are talking to them about stuff and using vision to drum it home, so in principle that's what I am doing, using their practical performances to show them the theory or the content as I have planned it in my unit.

The promotion of 'the integration of theory and practice' through the PES syllabus

Tom believed that "the syllabus does, as a whole promote the integration of theory and practice, but the exam does not, at least not as much as is implied in the syllabus". He elaborated by stating, "the problem is that because teachers often teach to the test, if the two don't align then the exam will always be more influential". Accordingly Tom believes that "the syllabus needs more guidance which points teachers towards practical based teaching, and then the exam needs to reflect this". He commented that,

... the SCSA always say the exam is a reflection of the syllabus, so I say, change the syllabus and you'll get the result you want. At the moment it has lists of content described in disciplines, 'bio' etc and this is pretty much the case with the exam as well. Questions about content areas. So that is how we teach it. Nothing needs to be integrated.

Tom was critical of teachers in other schools. In reference to the syllabus and teaching via overt theory and practice, the teacher commented that, "yep the words are there, but large swaths of teachers will not do that because they want short cuts to success, more likely they think that if they cram content, that will bring success".

The role of integrated theory and practice in unit planning

Talking about the role of integrated theory and practice in unit planning Tom, in support of previous comments made in this report, articulates a strong commitment, stating "yes, I have it in my mind all the time". Accordingly he allocated "three days a week to theory content. I then generally break this time up into some theory / prac time, such as the labs, and knowledge time. I also use the squash session to look at some aspects". In terms of assessment to support the teaching and learning the teacher planned "a mix of tasks and these obviously play a part in what I teach at any given time. We do some of the data gathering for the tasks in class, I am always applying theory to practice then".

However, in relation to assessment it is pertinent that Tom stated, "I am mindful of the data gathering tasks being time consuming so I have to be careful not to overdo it". He highlighted the influence of the external written examination, commenting that, "it does not require students to analyse data anymore, so we don't do it as much as we used to".

Accordingly, Tom was keen to point out that, “I also do tests and exams because that’s what they will do in the WACE exam”. Further, he indicated that he was complying with external expectations by drawing attention to the fact that the “school requires a mid-year and mock exam”, followed by, “it’s what all Year 12 courses have to do”.

Integrated theory and practice ‘in practice’

Tom clearly believed that he integrated theory and practice through the ‘flip flopping’ approach previously referred to, class based lab activities, and in the investigative tasks he gave students. He commented that,

... the lab activities and investigation tasks that I plan reflect integrated theory and practice. They always start with some form of practical data gathering or example. I directly relate what they are then asked to do to this practical. I don’t so much integrate different content, biomechanics and exercise physiology for example, its theory and practice that is integrated.

Tom stated that, “I am always flip flopping between content and practical, doing labs, some of which are assessed, some are just for teaching purposes”.

Integrated theory and practice and the ATAR ‘external written examination’

Tom believed that the ATAR exam required students to specifically integrate theory and practice to a degree, although as he points out this is “limited because the long answer questions are the only real area where the students need to apply greater understandings”. Importantly, however he acknowledged the significance of this part of the exam and the external practical performance score, stating “but these are big scoring sections, so they can get well above the pass mark through their practical performance mark and good application and writing skills”. Nevertheless, he was keen to point out that he was not just focused on the examinations by stating that, “this is still a learning activity”. However, the requirements of the examinations appeared to be a complex pressure for him because he states, “I do not totally prescribe to the ‘teach to the test’ approach, although it’s always in the back of my mind”.

The role of ‘practical’ performance in the teaching of syllabus content

For the most part the Tom left the practical performance aspect of the syllabus “to them” (the students). He justified this approach by explaining that while the school allocated one lesson a week to practical performance (Squash), “only 6 out of 15 in 2014, probably less in 2015, did squash in the practical performance exam, most did other sports”. The

inference is that there would be little gained by focussing on the practical performance aspect of the syllabus in squash when most of the students were going to be examined in another sport. Despite this, Tom was keen to point out that practical sessions played an important role in the teaching and learning of course content, especially in regards maintaining student interest and motivation.

Resources and texts used in the teaching of PES

Tom was clearly not wedded to any specific text or resource. Accordingly, he used the “Nelson” text (McPartland, Pree, Malpelli, & Telford, 2010), for no other reason than, “one of the Authors used to teach me when I was at school all those years ago”. In addition he used numerous other resources including the Victorian based texts “Live it Up” and the WA course based text by ‘UWA’ (Whipp et al., 2011).

The PES unit outline

This section of the case study report is descriptive in nature and details the PES unit outline, practical context and assessment items developed by the teacher for the students.

Structure

It is a requirement for schools teaching PES to provide students with access to the course PES syllabus. In this case the syllabus was, in part, included within the unit outline (see Appendix E). Other syllabus representations were included such as recognition that Stage 2 course content was built on and revised during the year. The unit outline was simply organised with content and assessment described week by week. No lesson-by-lesson breakdown of the four lessons a week was offered. Tasks were outlined in the document, so students saw these from a very early stage. Other course details were provided under “Additional Course Requirements”. This included a letter to parents outlining their role in the course (parents were asked to sign the letter and return it to school), homework arrangements and reference to the chosen course text, which was the Nelson PE Studies for WA 3A, 3B by Darren McPartland et al. (2010). A number of other references were mentioned in the unit outline, in particular, Physical Education Studies Unit 3A – 3B by Peter Whipp et al. (2011).

Content descriptions

Each of the five ‘theory’ PES course content areas were distributed across the three terms of teaching, as indicated in the order below.

- Functional Anatomy – 2 weeks
- Biomechanics – 5 weeks
- Exercise Physiology – 8 weeks
- Motor Learning and Control – 5 weeks
- Sports Psychology– 2 weeks

Content descriptions for each week's focus were 'cut and paste' statements taken directly from the PES syllabus (CCWA, 2009). Across the unit outline all syllabus content was described and covered. In this regard there was a close correlation between syllabus and the unit outline.

Practical

The Practical performance context for year 12 was squash. Brief references to syllabus content were included in the unit outline in weeks 1 and 9 in term 1. In week 9 two separate syllabus references were listed, these were: Developing physical skills, strategies and tactics in a selected sport, critically analyse movement skills of self and others using movement analysis techniques and biomechanical principles and; Exercise physiology describe the relationship between energy demands and nutritional requirements during physical activity i.e. nutritional considerations—balanced diet, glycemic index, fats, proteins, carbohydrates, fluid replacement.

Assessment outline

There were 11 assessment points identified in the unit outline and allocated across the 3 terms (see Figure 6). These included three practical performance and investigations items and five responses. Weightings were allocated accordingly: Response was allocated 45% (tests and exams), including 30% of the total mark being made up of two semesterised exams (12 and 18 marks respectively). Investigation was allocated 25%. Neither of these assessment types were set at maximum weightings, and therefore represented a compromise. However, practical performance did receive the maximum possible of 30. Assessments were planned evenly through the three terms and typically culminated a period of work on the relevant topic. There was no overt link or integration between assessments.

Assessment outline

Unit 3APES: Integrated planning for participation: Unit 3BPES—Looking to the future

Assessment type	Assessment type weightings	Task	Content	Due date	%	Outcome 1	Outcome 2	Outcome 3	Outcome 4
Practical performance	30% (CC weighting 30%)	Task 1 Skill performance	Developing physical skills, strategies and tactics	Wks 10–15	10%	✓			
		Task 2 Strategies and tactics test	Developing physical skills, strategies and tactics	Wk 14	5%	✓			
		Task 3 Advanced skill and conditioned/game performance	Developing physical skills, strategies and tactics	Wks 26–28	15%	✓	✓		
Investigation	25% (CC weighting 20–30%)	Task 4 Lab activity	Biomechanics; exercise physiology	Wk 7	5%			✓	✓
		Task 5 Preparing for competition	Exercise physiology	Wk 16	10%			✓	
		Task 6 Remember the Titans	Motor learning and coaching; sports psychology	Wk 27	10%				✓
Response	45% (CC weighting 40–50%)	Task 7 Topic test 1	Functional anatomy and biomechanics	Wk 8	5%			✓	
		Task 8 Topic test 2	Motor learning and coaching	Wk 22	5%				✓
		Task 9 Topic test 3	Sports psychology	Wk 27	5%				✓
		Task 10 Semester 1 exam	Developing physical skills, strategies and tactics, functional anatomy; biomechanics; exercise physiology; motor learning and coaching	Wk 17	12%		✓	✓	✓
		Task 11 End of year exam	Developing physical skills, strategies and tactics, functional anatomy; biomechanics; exercise physiology; motor learning and coaching	Wk 28	18%		✓	✓	✓

Figure 6. Case Study School 1 assessment schedule

Other unit information

The unit outline also provided students with copies of “Lab Activities” that were to be used during the teaching and learning of Biomechanics and Exercise Physiology. These were different to assessment tasks, although one of the assessment tasks was a lab activity. There were examples of tasks aligning intimately to content, for example, Task 4, the “Lab activity” was a collection of investigations in which students considered Biomechanical content such as Impulse, Spin, Momentum and Balance and Stability.

Assessment Tasks

The following is a summary of assessment tasks described in the unit outline. This summary includes specific and detailed descriptions of sample investigation tasks. All tasks were identified based on potential or perceived components of ‘integration’, either of theory and practice or between different content strands. This section culminates with a detailed description of samples of the investigation tasks at school 1.

Practical performance tasks

Practical performance tasks at school 1 closely followed syllabus content and advice provided in PES based support materials. The structure for all practical assessments typically followed the format of the ATAR exam, with static and dynamic skills followed by a conditioned response (game type play). There were three practical assessment points for practical performance, two were ongoing and one was exam style on a given date. As with the ATAR exam none of the practical performance tasks were overtly linked to any of the other five content areas.

Investigation tasks

The Investigation tasks planned for the course were extended tasks with two weeks allocated to all three. The tasks aligned with the teaching and learning taking place in the unit schedule, including for example data gathering during class time at school with peers, and the application of concept in the syllabus to a specific context, covered in class time.

Response tasks

Response tasks included three topic tests and two semesterised exams. The topic tests included, one test comprising 60 questions and two ATAR exam style tests comprising three sections of multiple choice, short answer and extended answer questions. These typically came at the end of a period of teaching and learning on a particular content area

and were often positioned soon after an investigation was handed in. The two semesterised exams were 2 hours 30 minutes long and followed the same format as the ATAR exam.

Investigation samples

Lab Activity: Exercise in the heat (refer to Appendix F)

The focus of this task was Biomechanics and Exercise Physiology, and specifically, “to investigate responses the body makes when exercising in different environmental conditions and to examine implications of the findings on the design of training programs”. Despite the fact that the task sheet identified the practical context for the task as Squash, this was not evident in the task itself. This may have been an error.

Students weighed one another and measured body temperature, and then ran laps of an athletics track at a consistent pace in simulated hot and humid conditions by dressing varying degrees of clothing. The task followed a traditional format of science experiments, requiring students to gather data, present data (using a graph), analyse and conclude. The final two aspects were led by questions, which prompted students to apply their findings to specific context, for example;

- Using the data recorded, explain the influence of the two different environmental conditions on the physiology of each subject.
- Explain the benefits of acclimatising an athlete to heat before a major event.
- What are the dangers of not preparing athletes for optimal performance in the heat?

Remember the Titans (refer to Appendix G)

The focus for the task was Motor Learning and Coaching and in particular group dynamics and leadership. Students answered questions based on the film “Remember the Titans”. The task was organised around six questions and typically asked students to identify, describe and explain leadership styles being used in the movie and apply these to a chosen model of cohesion. The task could be found on the CD disc that accompanied the text Physical Education Studies Unit 3A – 3B by Whipp et al. (2011).

Case study summary – School 1

For School 1 the PES course and its various components reflected an attempt to balance a number of key considerations, including student strengths and weaknesses, pedagogical practices to support these and preparation for the PES ATAR examination. Students were encouraged to choose a practical performance context for the ATAR exam independent from the selected sport at the school, Squash, in this way the course was viewed as “personalised”. The WA Curriculum Framework HPE learning area outcomes played a very small part in planning as a tool for balancing assessment types.

The unit outline was a broad document that provided students with a teaching and learning shell, organised around content descriptors taken directly from the PES syllabus. The overall planning approach indicated a bias towards exam preparation and exam style tasks, but there was evidence of teaching and learning practices that lent themselves to the ‘integration of theory and practice’.

It was clear that Tom perceived that Biomechanics and Exercise Physiology were the most demanding content areas for students with these two being allocated 16 weeks, double the amount of time allocated to the other three theory based content areas; Functional Anatomy, Sports Psychology and Motor Learning and Control. Biomechanics was allocated the most amount of time and is taught at the end of the unit. Tom also brought up the issue of time in the context of the “big syllabus” which did sometimes compromise the way he went about his teaching and learning programme.

In assessment, the maximum weighting available of 50% was allocated to “response” (where students apply their knowledge and skills when analysing and responding to a series of stimuli or prompts, typically in tests and exams). Of this 35% of the total mark was made up of two end-of-semester exams (15 and 20 marks respectively), which suggested a strong emphasis around these two ATAR exam style preparation opportunities. Conversely, the minimum amount of marks was allocated to ‘Investigation’ (20%), while ‘practical performance’ received the maximum possible of 30%. This again suggested a strong emphasis on exam preparation.

There appeared to be little or no alignment between theoretical content and practical performance as described in the unit apart from a brief reference in week 9. Indeed while practical performance was attended to during school based teaching with Squash as the context, as a large number of students chose other sports that they participated in outside school (in community teams or individual settings), typically they were left to develop

their own practical performance outcomes. Squash was used as the school based context and accordingly formed the basis for the school based practical performance mark that was therefore not related to the external practical examination for most students. Further, there was no immediate correlation between practical performance and content, although sometimes content was referred to when it occurred in practical lessons. This was not directly planned and was more ad-hoc in nature.

Tom understood the phrase the 'integration of theory and practice' as meaning, "theory is the content of the syllabus in this course, practice or practical is activity that supports the students understanding and motivates them to learn". Typically this was manifested in, "flip flopping between theory and practice". This flip-flopping took the form of ad-hoc use of teachable moments as they occur in practical performance lessons, one theory/prac class and 'Investigation' tasks, which as previously stated made up 20% of the total school based mark.

The four lessons per week allocated to PES were timetabled as two 'theory' lessons, one 'theory/prac' lesson and one practical performance lesson. In this way a conscious attempt was made to integrate theory/prac, although not necessarily content strands (e.g. Biomechanics to Exercise physiology). Other approaches such as assessed and non-assessed lab activities, including for example, the 'Heat Lab' further supported integration of theory and practice. 'The Heat Lab' was an example of an assessed investigation task and was worth 5% of the total 20%. It required students to experience a variety of simulated conditions, then reflect, and apply findings and knowledge to a specific context (in this case a 1500m runner). Finally students proposed adjustments needed to prepare for a specific race in Cairns, in tropical Australia. The analysis required students to reflect on their, and others', data and then apply this to the runner, and provide advice; in doing so relating back to practice. It gave students an opportunity to apply their knowledge to a specific activity in the process of gathering data. Importantly, in the marks allocation a good proportion of marks (7/25) was allocated to the final application and "advice" questions. There were phrases that represented the intent of the PES course rationale and course summary referred to above, including references to 'higher' order terminology, such as "analyse", "examine", "using" and "explain". These presuppose an action in advance, and support such things as data collection (for analysis and/or evaluation) or participation in activity to adapt or critically analyse, or application of knowledge or experience by designing or implementing.

In school 1 there was a heavy bias on ‘exam’ based preparation of students (both theory and practical performance), which might also reflect a perceived time imperative. Assessment tasks were not integrated and typically represented discrete items, even though the course does allow for weightings from each of the three assessment types to be distributed across assignments. Opportunities to integrate on two levels in the assessment tasks were lost. Firstly, the integration of theoretical content from one to the other e.g. exercise physiology to functional anatomy, and secondly, specifically theory and practical, in an assessment setting. However, practical stimulus, examples and data collection were used for most investigation tasks, although they were not related to practical and/or school based practical performance session.

A variety of texts and resources were utilised, although the McPartland et al. (2010) text formed the basis for most study. Many of the laboratories and investigations were taken from the Whipp et al. (2011) texts.

Case Study School 2

The following is a case study report from School 2; a government high school, with an approximate enrolment of 1500 students (Years 7 – 12) annually. At the time of this study PES was offered in Year 11 and 12. There were three classes in Year 11 and two in Year 12, with approximately 120 students across the two years.

The teacher who was interviewed for the case study (and who provided resources and materials), will be referred to as ‘Sam’, and had 5 years’ experience of teaching HPE in WA since 2009, having come straight to the school from university. During that time Sam had taught senior school PES and Human Biology. One other member of staff taught PES, but Sam took responsibility for leading course development at the school. Sam attended consensus and moderation meetings biannually, and had attended numerous PES professional learning events in his five years of teaching the course. He worked closely with a friend from another school who also taught PES, and they shared resources. Otherwise Sam had little contact with other schools or networks in the context of PES.

The philosophical approach to PES

Sam’s approach to PES was centred on preparing students for the final external ATAR examinations. He highlighted that “the exam is the number one thing” and pointed to the influence of parents, stating that they, “are only interested in how students are going in relation to their ATAR score. They sometimes ask why are we spending so much time on

such and such and not doing more practice questions. We explain, but I am not sure it goes in". As such parental attitudes influenced the approach taken with the teacher responding by "getting the students prepared for the exam and that alone.

Sam made the point to students that "the syllabus is examined, not the texts" therefore a significant amount of time was taken to orientate and familiarise the students with the syllabus and terminology within it. This emphasis was seen in Sam's statement that;

If it's not in the syllabus we don't cover it. If the syllabus uses one term to describe something that may have another name, we use the syllabus version. Even if the textbook's use different terms and concepts sometimes, we stick to what the syllabus says.

In regards personalisation, Sam stated that;

Our course is a common one, it is not particularly 'personalised'. There is not a lot of time for kids to follow personal interests, accept the practical exam of course. They can use their knowledge of sports they know better in investigations and examples in tests.

Sam strongly believed that the WA Curriculum Framework outcomes (see chapter 1 and 6) were "dead, so we don't use those at all, at any time". The lack of affiliation to one of the key overarching discourse to extend and align of the WA Curriculum Framework (CCWA, 1999) and learning area outcomes from K – 10, was further evident in the teacher's statement that "in fact I didn't realise they were still in the syllabus until the other day. They do appear on our assessment scheme, but that's historical. I guess they should stay there".

An understanding of the phrase 'the integration of theory and practice'

Sam understood the phrase 'integration of theory and practice' to concern, "experiences", including the "consistent application and practice of content through experiences, as well as written consolidation". He emphasised that the "students need to experience it and then put it into practice". Sam was clear in pointing out that integrated theory and practice was not "simply a real life example, because that is not experiencing it" and highlighted that teachers need to take into account different learning styles in the understanding and application of theory into practice. He gave the example that, "cognitively learning for practical learners is that you have to see or do, while science based learners need to get there head around the concept first and then apply or do it".

The teacher clearly believed the application of theory into practice is compromised by more pragmatic considerations. This was reflected in the teacher's statement that;

I have a split personality. I know theory into practice is central to the course. At the back of your mind you know it's always there. But in reality, especially in Year 12, you only have some much time. One side of you wants to do it, but you end up doing another”.

Sam reflected, “today we were looking at ‘Spin’ and used coloured table tennis balls, spun them around, and the kids said ‘why don’t we do this all the time’ and my answer, is ‘because we don’t have the time’”. He also reflected on other opportunities when theory and practice is integrated into his teaching and learning, although he was keen to point out that this only really represented illustrations, not true theory into practice teaching. Sam commented, “only this week we spoke about Football’s drugs issues, the Commonwealth Games and Lance Armstrong’s ‘coming out’, they are ripe for using. This happens regularly. Things happen and you take the opportunity”. Sam alluded to the value of this kind of approach, but drew attention to the issue of time on two fronts. Firstly, preparation time for the teacher, and secondly, time doing the activity. Sam explained, “the students clearly got the idea of ‘Spin’. I think in the long term it would work, if you had the time to prepare, but the reality is you don’t. I have multiple classes to teach, you simple don’t do the prep that you need”. He acknowledged that typically little integrated theory and practice teaching took place, in favour of a more “didactic, here’s the knowledge your need” approach.

The promotion of ‘the integration of theory and practice’ through the PES syllabus

Sam was clear in thinking that the syllabus did not promote the ‘integration of theory and practice’. In short, “no, at the moment the syllabus is content driven, with the content areas described in order. Hence we teach it in those areas. If there was less content you could spend more time on that theory and practice stuff and relate it to more different content areas”. He highlighted that there “were few signals in the syllabus to really point you in that direction. The rationale ‘yes’, but who reads that. I think today might be the first time since university”. Sam emphasised the influence of the syllabus on their approach to the integration of theory and practice by stating, “we tell the students that the exam is a test of the syllabus, so if it’s not there, we are not going to cover it”. Sam added, “I cannot really put my finger on a phrase or bit of specific content that says apply this in a practical situation, so we tend not to approach it that way, despite the few examples I have mentioned”.

The role of integrated theory and practice in unit planning

Sam indicated that the integration of theory and practice was not an influential feature in planning considerations, stating “our main focus is on sequencing the content, which is mainly driven by the order of the text and which areas we think are the hardest”. However, the teacher emphasised that this decision “often depends on our kids as well. We change it to meet their needs”. He illustrated this by stating that, “Functional Anatomy gets less than all other 5 content areas, and we spend most time on Biomechanics and Exercise Physiology. This is because our kids find it (Biomechanics and Exercise Physiology) harder and it’s a bigger chunk of the syllabus”.

The pragmatic approach to planning was reflected in the design of unit assessments and tasks at this school. Sam used the full available weighting for ‘Response’ by designing and planning in-class based tests and exams. Moreover the ‘Investigations’ had a strong emphasis on ‘Responses’. He stated “we view the ‘Investigations’ as preparation for a test or ‘Response’. Mini tests always come after an ‘Investigation’ task, and are included as part of the ‘Investigation’ marks. Again reflecting the fact that it’s an exam they will be sitting at the end”. Sam drew attention to the fact that most ‘Investigations’ are applied to a practical context, for example, “in the Sports Psychology ‘Investigation’ the students must apply a chosen leadership model from the syllabus to a practical example of a local basketball team”. All tasks are completed in class, as this was considered “a reflection of the exam conditions”, “saves time” and also addressed the issue of plagiarism. Sam again highlighted the issue of time and the influence it had on decisions regarding assessment types, stating, “in-class tasks supported by clear marking keys are easier to mark. Marking an extensive ‘Investigation’ requires more ground work, a luxury we cannot generally afford. Plus, mind, the exam does not ask them to interpret data, so what’s the point of wasting time collecting it”

Integrated theory and practice ‘in practice’

Sam confirmed that during teaching and learning experiences and activities, there was little integration. This can be seen in the teacher's statement that, “what features I do use are random, ad hoc stuff, as you go. Often when we are playing Volleyball, I will relate to the phases of learning or perhaps technical advice based on biomechanics we have covered”. He stated that “mostly, it’s ‘chalk and talk’, and task and investigation driven. I do not subscribe to any particular theory and practice approach”.

Integrated theory and practice and the ATAR ‘external written examination’

Sam did not believe the ATAR exam required students to specifically integrate theory and practice, stating, “I don’t think students need to particularly relate theory to practice in the exam, its more knowledge and content based”. He highlighted that “the exam is the number one thing. It’s why we do the mock exams, and do the ‘Investigation’ and ‘Response’ thing the way we do”. Sam confirmed that “if the exam reflected an integrated approach more, we would change our approach, but generally it does not, so we don’t do it that way”. Accordingly, he believed that the key area was “hitting the marks” and getting down “key terminology”.

Terminology was clearly influential in Sam’s approach to examination preparation and teaching and learning in general. This was seen in his statement that, “students often cannot write extended answers very well in terms of grammar and developed answers, but if they use the correct terminology and write it down on the paper, they will get marks”. However, he stated that, “we do spend time looking at terms, for example, ‘identify, explain, adapt’. Yes we alert them to these and spend time to practice recognising these”. The school also encouraged students to attend the Academic Task Force, a commercial independent organisation, “who do a lot of work on exam techniques and how to attack the exam”. This further indicated a keen focus on the exam and its component parts was a key feature of teaching and learning within the PES course at School 2, rather than any particular aspect of integration.

The role of ‘practical’ performance in the teaching of syllabus content

Sam felt that practical performance teaching and the associated exam are typically separate from ‘theory’ teaching, apart from the ad-hoc use of examples mentioned previously. With regard the practical performance exam, approximately a ¼ of students chose to be examined in sports not associated with teaching in the course, while the remaining do Touch or Volleyball. Students participate in one lesson a week of practical performance, with a keen focus on the drill and conditions used in the ATAR exam. The teacher used the CCWA practical support materials to source these.

Resources and texts used in the teaching of PES

The school used the “Heberle” text (Heberle & Middleton, 2007) and explained that they felt that the “Nelson” text (McPartland et al., 2010) “lacked content”. There is “stuff missing and the layout and flow is too complex”. In contrast, they identified the “Heberle” text as “colour

coordinated and organised well”. In addition students received a pack of resources developed by Sam and his colleague, including “old faithfuls”, extracts from other texts and power point slides. Wordle (www.wordle.net) and Inspiration (www.inspiration.com) documents had been produced to support the student’s understandings of key terminology, which was considered to be a very important feature of examination preparation. The pack also included other course requirements, such as the unit outline and assessments. These were also available on the school intranet. Sam felt that the students were “over resourced if anything”.

The PES unit outline

The next section of this case study report is descriptive in nature and details the PES unit outline, practical context and assessment items developed by the teacher for the students.

Structure

It was a requirement for schools to provide access to the PES syllabus. In School 2 the syllabus extracts were included as part of the unit outline (see Appendix H). The unit outline was simply organised as content and assessment week by week. No lesson by lesson breakdown was offered and specific assessment tasks were not included. The week-by-week breakdown contained a description of content, such as Biomechanics, Exercise Physiology and Functional Anatomy; and practical performance references to the chosen contexts of Volleyball and Touch Rugby. A timeline for assessment was also included. Some brief text references were included in the week-by-week breakdown, and these referred to the “Heberle” text (Heberle & Middleton, 2007).

Content descriptions

Each of the five “theory” content strands were distributed across three terms of teaching, as below and in the following order:

- Functional Anatomy – 2 weeks
- Exercise Physiology – 7 weeks
- Sports Psychology – 3 weeks
- Motor Learning and Control – 3 weeks
- Biomechanics – 9 weeks

Biomechanics was allocated the most amount of time and was taught at the end of the unit. Content descriptions for each weeks focus were ‘cut and paste’ statements taken directly from the PES syllabus (CCWA, 2009).

Practical

Practical performance was allocated one lesson a week across the course. There were a number of brief references to the content area “Developing physical skills and tactics” in the weekly breakdown. This typically took the form of a simple reference to the sport and an associated skill or strategy or tactic to be covered. Four assessment tasks addressed practical performance across two sports (Volleyball and Touch Rugby) that were included in the timeline.

Assessment outline

Twelve assessment points were planned across the course (see Figure 7). These included four assessments per assessment type. The maximum weighting of 50% was allocated to ‘Response’ (tests and exams). 35% of this 50% was made up of two semesterised exams (15 and 20 marks respectively). Practical performance received the maximum possible of 30, while the minimum weighting of 20% was allocated to ‘Investigation’. Assessments were planned evenly across the three terms and typically culminated a period of work on a relevant content area. There was no overt link or integration between assessments apparent in the assessment schedule.

Unit 3APES/3BPES		Outcome 1	Outcome 2	Outcome 3	Outcome 4
	Weightings	Skills for physical activity	Self-management and interpersonal skills for physical activity	Knowledge and understandings on movement and conditioning concepts for physical activity	Knowledge and understandings of sport psychology concepts for physical activity
Performance and Response 30%					
Volleyball					
Basic Skills Test	5%	√	√		
Volleyball					
Skills, games and strategies Practical Exam	10%	√	√		
Touch Rugby					
Basic Skills Test	5%	√	√		
Touch Rugby					
Skills, games and strategies Practical Exam	10%	√	√		
Investigation 20%					
Physiology task					
Heat, cold & altitude	5%			√	
Biomechanics Task					
	5%			√	
Motor Learning Task					
In class essay	5%			√	
Sports Psychology Task					
Carron's model	5%				√
Response 50%					
Functional Anatomy Test					
	5%			√	
Mini Tests					
5 Mini Tests at 2% 5 each	10%			√	√
Exam 1					
	15%			√	√
Exam 2					
	20%			√	√

Figure 7. Case Study School 2 assessment schedule.

Assessment tasks

The following is a summary of assessment tasks carried out by students during the course, as described in the outline. This summary includes specific and detailed descriptions of sample tasks. All tasks were identified based on potential or perceived components of integrated theory and practice and/or interdisciplinary features.

Practical performance tasks

There were four assessment points for practical performance, two each for Volleyball and Touch Rugby. 15% of the total weighting of marks was allocated to each sport. 10% was allocated for games and strategies, and 5% for skills.

All practical performance assessment points followed a test or exam format and took place on a given date. The structure for all practical assessments typically followed the format of the ATAR exam, with static and dynamic skills followed by a conditioned response (games and strategies). Practical performance tasks in the course closely followed syllabus content and advice provided in the support materials available on the CCWA website. As with the ATAR exam none of the practical performance tasks were overtly linked to any of the other five strands of content.

Investigation tasks

Investigation tasks were completed 'in-class'. Students were given the assessment sheet and homework time to research and investigate the topic. Questions closely reflected the 'extended answer' style from the ATAR exam. The tasks aligned with teaching and learning taking place in the unit schedule. Tasks did not directly relate to the practical performance tasks of Touch Rugby and Volleyball.

Response tasks

Response tasks included two exams, one specific Functional Anatomy test and five mini tests. The two semesterised exams were 2 hours 30 minutes long and followed the same format as the ATAR exam. The five mini tests and specific Functional Anatomy test culminated a period of learning on a specific content strand and contained four or five 'short answer' questions, similar to those in the ATAR exam. The mini quizzes were completed in class.

Investigation samples

Biomechanics movement analysis (Appendix I)

The focus for the task was Biomechanics and specifically required students "to research the biomechanical principles evident in a pre-determined range of activities and sporting movements".

Students researched at home and then completed an extended answer style task in class during a 60 minute lesson. Pictorial and diagrammatic stimulus from a number of different sports and contexts were used as the basis for all questions. None of the sports and contexts used were Touch Rugby or Volleyball. Questions typically asked students to use information from the stimulus to "explain" and in one case "discuss" Biomechanical principles. A sample of these is included in Appendix I.

Preparing for competition (Appendix J)

The focus for the task was Exercise Physiology, and specifically evaluating “the implications of preparing and performing in varying environmental conditions”. The context for the task was elite athletes competing in varying environmental conditions throughout their career. The stimulus for the task was three major sporting events, including the 1986 Summer Olympic Games in Mexico, the 2010 Winter Olympic Games in Vancouver and the 2010 Football World cup in South Africa. Students were required to choose one of the events and answer questions accordingly. The task was organised around four questions and typically required students to “describe”, “explain” and in one case “discuss” specific environment factors as related to athletes in the choose completion context.

Case study summary – School 2

For School 2 the PES course had a strong focus on ATAR examination preparation, in particular the written examination, which was in part a response by Sam to perceived parent pressure and wishes, the nature of the syllabus and ATAR exam questions. No particular features of the course conceptualisation dealt with ‘personalisation’ other than that students could choose what sport they participated in from the fourteen choices for the practical performance examination. The WA Curriculum Framework HPE learning area outcomes (see Chapters 1 and 6) played no role in course planning, although they received a mention in the assessment schedule, which appeared a historical reference from past years.

The unit outline was a very pragmatic document and was organised with a firm focus on examination preparation in both theory and practical components of the syllabus. This is reflected in the assessment outline that provided maximum weighting of 50% to ‘response’ (where students apply their knowledge and skills when analysing and responding to a series of stimuli or prompts, typically in tests and exams) and 30% to ‘practical performance’ (which focuses on skill and tactics and strategies). Conversely ‘investigation’ was weighted at the minimum of 20%.

Time was the overriding factor influencing all facets of PES planning in this case study school: time to plan lessons, prepare resources, mark work, and to get through course content. There was a significant emphasis on ‘teaching to the (ATAR) test’ in terms of the approach taken to planning, sequencing course content and the nature of assessment tasks. Propositional knowledge in the syllabus was taught in order of the perceived degree

of difficulty, as related to the students, with the easiest content taught early in the year and the hardest as close to the examination as possible. The unit outline clearly demonstrated that Biomechanics was regarded as the most challenging content and was allocated the most time and taught as near to the end of the course as possible. By contrast, Functional Anatomy and Sports Psychology was considered less challenging and hence allocated less teaching time.

Sam identified the PES ATAR examination as being knowledge based, requiring students to “hit the marks” by using key syllabus based terminology. ‘Wordle’ and ‘Inspiration’ documents were produced to support student’s understandings of this important feature.

Assessments were overtly designed to reflect the fact that students would ultimately take the PES ATAR written examination. Maximum weightings were offered to ‘response’ while aspects of investigations also reflect test like conditions, variously taking the form of ‘in-class’ essays to simulate the ATAR examination conditions and “save time”. The school essentially chose to allocate 70% of marks to response style tasks, although 30% was wrapped up in ‘investigations’. Accordingly, the course represented a very pragmatic representation of syllabus requirements.

Sam had an understanding of the phrase ‘integration of theory and practice’ as meaning, “about experiences”, and the “consistent application and practice of content through experiences, as well as written consolidation. Students need to experience it and then put it into practice”. Nevertheless, he felt compromised and questioned the application of theory and practice in favour of more pragmatic considerations. Sam was of the opinion that the written examination did not require students to interrelate content areas and disciplines. Consequently, there was little evidence of the integration of theory and practice or indeed interdisciplinary references, either in the unit outline, pedagogical practices or assessments.

The PES syllabus was seen as a major sticking point in the promotion of an integrated theory and practice approach. Reasons for this included, firstly, a major emphasis placed by the CCWA on testing the syllabus. The teacher believed that despite the rhetoric in the course Rationale, the syllabus did not require students to integrate theory and practice. The syllabus was not seen as providing sufficient guidance or signposts for teachers towards the integration of theory and practice, and Sam did not foreground integration in developing the course in his school. Secondly, assessment types could be broadly interpreted and adapted (e.g. Investigations turned into tests). The integration of theory

and practice was not seen as a central feature of curriculum, assessment and pedagogy, and the Rationale was a part of the syllabus that Sam believed was not read widely.

Typically, opportunities to integrate theory and practice, for example during ‘investigation’ tasks, were not taken up, rather assessments took on a ‘response’ style or examination focus, with students given questions to ‘investigate’ and research, before answering the short and long answer questions in class. Tasks that required data gathering by students were not used because the external examination had, in recent times, not required students to analyse data. Both school-based examinations (practical performance and written) were discrete and separate from each other with no overt integration or link between the two evident.

There was evidence of some aspects of integrated teaching and learning akin to the “application and practice of content through experiences”. This included a lesson on ‘Spin’ during which students participated in various experiments with table tennis balls, before responding to written based prompts. There were plenty of examples, although not always obvious to Sam, of practical or sport based examples used to illustrate propositional knowledge or to act as a prompt in task guidelines (for example; the Olympics and Soccer World cups in different continents as contexts for a tasks on competing in varying environmental conditions; and the local basketball team as a context for a task that centres on social cohesion) or test style questions (for example photographic stills of a Badminton serve as a basis for a question on segmental interaction). Practical performance sessions in Volleyball were used on an ad hoc basis to illustrate ‘theory’ covered elsewhere, but this was not planned and was not a feature of the unit outline or practical performance tasks which were typically skills based, reflecting the practical performance ATAR examination of static and dynamic drills, followed by a conditioned response.

Decisions on texts were made based on their organisation and lay out of chapters and sections, rather than pedagogic factors. Indeed, pedagogy was not overtly planned or arranged in the unit outline, other than as related to tasks and assignments, and more broadly reflects knowledge transfer, or as Sam referred to it a “chalk and talk” approach.

Case Study School 3

The following is a case study report from School 3; a Catholic Secondary College, with an approximate enrolment of 700 students (Years 7 – 12) annually. PES was offered in

Year 11 and 12. There were two classes in both Year 11 and 12, with approximately 90 students across both years.

The teacher who was interviewed for the case study (and who provided resources and materials) will be referred to as 'Mike'. At the time of data collection Mike had more than 10 years' experience teaching senior school HPE courses in the UK and WA, including the teaching PES since 2008. Mike taught all PES classes at the school, this plus a pastoral leadership role in the senior school accounted for his total teaching load. Mike was highly involved in the Catholic school HPE network in the late 2000s, which organised various professional learning events, but at the time of data collection this network was not active. Mike attended consensus and moderation meetings when organised. Otherwise Mike had little contact with other schools in the context of PES.

The philosophical approach to PES

Mike's philosophical approach to PES was strongly student centred, with a keen focus on their strengths, weaknesses, intrinsic motivations, interests and academic aspirations. This was seen in the teacher's statement that,

I understand that most of the students that choose PES are practical minded kids. They like sport and want to use this interest to get a good ATAR score. Most of them are reasonably capable practically as well, not all, but most. I want to use that interest, the motivation of the ATAR and sport, to get them a good result.

Mike believed the best way to do this is to "feed the beast and use practical participation and sport as much as I can. Relate to them and their sporting interests". Mike did not believe that the design of PES in WA provided for any specific 'personalisation' features in the course. Accordingly, the use of practical performance and the student's keen interest in sport was also the basis for how he catered for personal interests and individual learning needs.

Mike viewed the course as "a sports science or sports studies course". He was critical of the use the phrase 'Physical Education Studies', as he believed that it was not a true reflection of the course and its component parts. He stated,

I see little PE in the course. It's the study of sport and I think everything about it supports that, the exam, syllabus, resources and texts, so my approach is guided by that belief and reality.

Hence, Mike emphasised the practical application of theoretical content to sporting contexts. This was reflected in his use of pedagogical approaches such as "through the

examiners lens”. Mike explained, “I try to alert them to different practical facets of the course, like putting them in the role of the examiner, where they look at the performance through the eye of the examiner”. This comment was tempered with a statement that also reveals a frustration with the nature of the ATAR examination. Mike stated that “the exam is very subjective, I don’t like it, I don’t say that to the students but that’s what I think”. Despite this, the application of theory to practice was still “front and centre” in his approach to PES. Mike was clear that “I still feel it’s important for the students to understand where the content applies to performance or practical whatever you want to call it. This strongly influences how I approach the course”.

According to Mike, the WA Curriculum Framework HPE learning area outcomes (see chapter 1 and 6) played “no role whatsoever” in his delivery of PES. This stance was reflected in his clear statement that the PES course “has moved on”. He also alluded to what he described as the “haphazard nature” of the development process during the initial years of enactment, commenting that, “you can still see signs of them in the course syllabus, but that’s just because stuff has been tagged on”. Mike was confident that despite the initial emphasis on learning area outcomes “few use them anymore in any way”.

An understanding of the phrase ‘the integration of theory and practice’

Mike viewed the phrase the ‘integration of theory and practice’ as “theory is knowledge, practice is practical application, involvement, doing, applying knowledge to doing and vice versa”. He made the point that he viewed the integration of theory and practice as multi-layered, with the understanding of course content as being only one of these layers and somewhat one-dimensional. This can be seen when he states “ ‘theory’ does not have to be course content ... I am interested in the kids viewing this course from a number of lenses”. To illustrate this understanding he provides the following example.

I ask the students, what do the examiners see when you perform or write something down? I want my kids to understand the content, ‘yes’, but it’s also important they understand it’s wider application.

Examples of this can be seen in coming sections.

The promotion of “the integration of theory and practice” through the PES syllabus

Mike felt that the syllabus did not support the integration of theory and practice. This was evident when he expressed concern about the synergies between certain aspects of the course. He stated, “look, the syllabus does state it’s central to the course, but we learnt

long ago that there was not a good relationship between the syllabus, its rhetoric, the final exam and the way it is assessed. They simply don't line up". Despite this concern, Mike had a very pragmatic view regarding his pedagogical approach to the course. He stated, "I need to interrelate the content because that's how I think my kids learn best and how I keep them on track, motivated".

The role of integrated theory and practice in unit planning

Mike indicated that the integration of theory and practice is a fundamental feature in planning considerations. This was clearly evident when he stated that:

... the unit I design is mapped out to include syllabus content, aligned to practical illustrations or a practical session. What I mean by 'practical session' is volleyball. In this I will spend time doing volleyball, but also make reference to and illustrate something we have learnt 'in class' [teacher used fingers to indicate inverted commas].

The integration of theory and practice was further evidenced in task design, in which he also linked the pragmatics of time and examination preparation. Mike elaborated on this by specifically identifying what were described as the "through the examiners eyes" task. He stated, "I get the kids to apply theory and practice "through the examiners eyes". That's what I call it with them. Let's experience, and practically do the examiners role. I think it saves some time, opens eyes, kills two birds with one stone. They do not just do tests and practice being bad at tests". Mike explained, "I do some theory work and then set a task or job for them to do. If time allows I get them to look at the task and ask, 'if you were marking this what would you look for?' He utilised past marking keys from the CCWA website as food for thought, and students discussed and agreed on "what it looks like". Mike acknowledged that this process could take some time, but "I think it's time well spent". Consequently all students did the task "or we take turns, it depends on the nature of the task". Students 'live mark' or marked later, "through the examiners eyes", then provided feedback to peers. He stated that, "in written answers if I find a general theme happening, I'll go back over stuff. Then I might get them to do it again for homework. That's it really. I think this is a really useful process and I employ this more than doing tests".

Mike believed that task 2 (Practical Investigation and Report: Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others) and task 3 (Investigation and Report: Exercise Physiology - "High Performance Manager"), would be the best task that the students do for illustrating his approach to planning the integration

of theory and practice, believing that this is where “kids use ‘practical’ (teacher used fingers to indicate inverted commas), to get into the content or theory, whatever you want to call it” (Note, these tasks are expanded on later in this chapter).

Finally, Mike expressed that using a theory and practice approach allowed students to develop a rich understanding of the content, which in his view, despite the trade off with time, ultimately payed off in the exam. He stated:

I'll say something here which is not very PC. Teachers talk a lot about time. They employ tests to save time, they think longer tasks are lengthy and take up too much time. So they don't do longer tasks because that's not the type of assessment the students will do in the exam.

Contrary to this the Mike felt that it was vital to look at the exam and/or test and ask, “What skills do kids need to answer the questions. In that old fashioned way, say ‘what are the words asking me to do’”. Mike was therefore prepared to invest time in this kind of approach.

Integrated theory and practice ‘in practice’

Mike clearly considers the use of practical performance and illustrations as being central to his pedagogical practice. This came through in his comment that, “I think I do it, day in day out. I start most lessons with a practical based experience or example, like a demo in my skill based normal PE lessons”.

More specifically to PES, Mike elaborated on his approach by stating that, “I demo what I am going to focus on. It might be a few balls spinning or a bit of You Tube. Whatever, it's something practical that they see or do. I might then give them some theory inputs, then I apply it to a situation or sport, so its practical, theory, apply, that's the basic plan”. Interestingly Mike drew comparison between their approach and the Tactical Games Approach (TGA) (Mitchell et al., 2006), highlighting that “the approach is a bit like the TGA, let's understand what we are discussing and get some sense of the content here in a practical context”.

Mike believed that it was important for the students to challenge some of the content. Accordingly, his pedagogical practice sought to facilitate this, he explained, “I am not sure that some of the syllabus content is all ‘theory’ [teacher uses fingers to indicated inverted commas]”. Mike prompted students to think for themselves, and posed the questions ‘what do you think? Do you agree with this idea?’ “I challenge them to investigate the idea. Most times they end up agreeing, but at least they consider the

possibilities”. He was keen to point out that his approach is firmly grounded in student’s needs, interests and perceived learning style, highlighting that:

... it’s not the exam paper itself that requires theory into practice teaching or why I teach the way I do. It’s the kid’s understanding. I am not teaching to the test, I think my students learn best like this. God it’s like raising the dead some time, so getting them up doing stuff is a necessity as well as a teaching approach.

To provide flexibility and to support Mike’s approach students were required to come to all PES classes in PE uniform even when they are timetabled in a classroom. Space around the school is used on an ad-hoc basis. Mike felt that this flexible approach to where he actually did his teaching reflected and supported this pedagogical practice. In support of this he highlighted:

I get one lesson in the big gym and internally we organise a space for me on the outside courts. I allocate the gym space to volleyball. One lesson a week for the year on volleyball is enough and I only do this one sport in Year 12.

A normal “traditional classroom” of four wall, tables and chairs was timetabled for three of the four lessons allocated to PES, but the teacher stated:

Sometimes I don’t go in there. I do use the whiteboard in the pool area a lot, that’s not heated so only gets used terms 1 and 4. It’s a good space, but on the timetable it says the lesson split is one practical and three traditional classroom based. At least that’s how the deputies putting together the timetable view it, but we play with that idea.

Resources and texts used in the teaching of PES

The school used the ‘Heberle’ text (Heberle & Middleton, 2007), “simply because it was the first one out and we bought a class set. It’s now a little dated in terms of syllabus alignment”, and the ‘Nelson’ text (McPartland et al., 2010) which students are asked to buy as part of the booklist. “I use the ‘UWA’ text (Whipp et al., 2011) as well and some students get this one as well”. Numerous other resources are placed on the school PES course site.

The PES unit outline

The next section of this case study report is descriptive in nature and details the PES unit outline, practical context and assessment items developed by the teacher for the students.

Structure

The unit outline (Appendix K) was a detailed document, including termly and weekly plans for the teaching of course content, supporting topics, practical performance, resources and referencing and assessments. Two separate texts (McPartland et al., 2010; Whipp et al., 2011), including page numbers were referenced, in addition to a range of materials including WACE support materials, WAIS training programmes, coaching styles DVD's and relevant websites.

Content descriptions

Each of the six strands of content were planned across the course, as below and in the following order:

- Biomechanics – 4 weeks
- Motor Learning and Control – 4 weeks
- Sports Psychology– 3 weeks
- Functional Anatomy – 3 weeks
- Exercise Physiology – 5 weeks

Exercise Physiology was allocated the most amount of time, but all were punctuated by periods of revision, which appeared to cover the various course content areas. Various, content taken directly from the PES syllabus (CCWA, 2009) had been edited and described as a series of dot point. Course content from the two Stage 3 units had been sequenced across three terms of teaching.

Practical

The practical performance context for the course was volleyball. Ongoing weekly practical sessions were planned, with specific skills, tactics and strategies content identified. These sessions were used for both developing practical performance and data gathering for investigations including the Practical Investigation and Report: Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others, which is detailed later.

Assessment outline

Eleven assessment points were allocated across the three terms (see Table 6). These included three 'practical performance', two 'investigations' and seven 'responses'

(although one was a small orientation quiz). Weightings were planned accordingly with ‘response’ allocated the maximum weighting of 50% (tests and exams). 30% of this total mark was made up of two semesterised examinations (12 and 18 marks respectively). ‘Practical performance’ also received the maximum possible of 30%, while ‘investigation’ was allocated the minimum of 20%. The eleven assessments were planned evenly across the three terms and typically culminated and/or supported a period of work on the relevant topic. A mock examination culminated the year. There was no overt link or integration between assessments, although practical performance did provide data for at least one task.

Table 6

Case Study School 3 Assessment Schedule

Task	Practical	Investigation	Response
Quiz			√
Test 1			√
Task 1 – Practical Investigation and Report		√	
Test 2			√
Task 2 – Performance Analysis	√		
Semester One Exam			√
Task 3 – Mental Skills Investigation / HP Manager		√	
Test 3			√
Task 4 – Volleyball Practical Exam	√		
Test 4			√
Semester Two Exam	√		√

Assessment tasks

The following is a summary of assessment tasks carried out by students during the course, as described in the outline. This summary includes specific and detailed descriptions of sample tasks. All tasks were identified based on potential or perceived components of integrated theory and practice and/or interdisciplinary features.

Practical performance tasks

There were only two practical performance assessments, which were a mix of performance and self-analysis based tasks. One practical assessment was a simulated examination situation, during which the teacher marked students performances in drills and a conditioned game, against established standard based criteria similar to those used in the ATAR examination. The other practical performance task focused on the self-analysis of skills, strategies and tactics in static and dynamic drills, and game situations akin to those provided in the WACE practical support materials, and required students to perform, record and analyse themselves and others. In one case the students were also required to employ a biomechanical analyse of volleyball skills and game play, linking theory based course content to practical performance. This task is considered in greater detail later in this report.

Investigation tasks

There were two Investigation tasks based around the context of a High Performance Manager, which took the form of a Mental Skills Investigation and Exercise Physiology task. These investigations were extended tasks with two to three weeks allocated for completion. The tasks aligned with teaching and learning taking place in the unit schedule and in the case of the Mental Skills investigation data was collected during practical sessions.

Response tasks

Response tasks included one small quiz, four topic tests and two semesterised exams. The four topic tests typically took the form of the ATAR exam with multiple choice, short and long answer questions. These typically came at the end of a period of teaching and learning on a particular aspect of course content. The two semester exams were 2 hours 30 minutes long and follow the same format as the ATAR exam, indeed in both cases they were whole or in part, past papers from previous years.

Investigation samples

Practical Investigation and Report: Motor Learning and Coaching ‘Ultimate Frisbee’ game performance analysis of self and others (refer to Appendix L)

The focus for the task was Motor Learning and Coaching, and specifically to “create a game notational analysis system to describe and evaluate performance and create a skill and/or strategy-based intervention that would potentially address your own and others weaknesses and improve performance”.

In this staged task students completed a number of “conditions” which started with experiencing the game of Ultimate Frisbee. Following the initial game students must, in condition two, “create a ‘notational game analysis system’ (NGAS) that allows game-based data to be collected”. In the final two conditions students applied the NGAS to skill execution and game play situations and collect data accordingly. The task sheet guided students towards an NGAS that incorporated and interrelated a number of course content areas, for example:

Throwing (recording number of throws made; and consider accuracy of throw, length of throw, type of throw, action evaluation – including preparation phase, delivery phase and follow through along with biomechanical qualities such as velocity development and balance).
Catching (recording number of catches made and the field position in which they were received; and consider success of catch, type of catch, action evaluation – including preparation phase, and contact/absorption phase along with biomechanical qualities such as force absorption and balance).

Following the data collection phase guided by the various ‘conditions’, students presented their data, discussed the effectiveness and critically analysed the notational analysis that they had designed. Students then designed a tool to assess mental skills influences on your subject’s performance. Finally students discussed the importance and relevance of this.

Practical Assessment (Volleyball)

The focus for this task was practical performance. Students acted as WACE examiners and analysed their own and others practical performance of ATAR examination style static, dynamic and conditioned responses. Following the initial performance students applied a “biomechanical perspective” and identified “significant errors” before suggesting fault correction actions that identify how the correction of the error will improve the skill execution from a biomechanical perspective”. Finally students applied the same process to game play, during which they analysed game recordings and

identified and explained any strategies and tactics that the team being analysed could employ against the opposition. Following application of these strategies and tactics students commented on the effectiveness of these tactics, before finally suggesting how these may have benefited the team.

Investigation and Report: Exercise Physiology - “High Performance Manager”
(refer to Appendix M)

In this task students cast themselves in the role of a “*High Performance Manager*” with overall responsibility for the physiological performance of the selected athlete. Students choose one of three different sporting contexts (either Soccer, Gymnast or Golfer) and “Identify and evaluate the key nutritional components (pre, during and post competition) pertaining to this athlete, and describe how these can be used to maximise game day/competition performance”, before identifying and justifying a recovery regime. Finally, students evaluated the implications and strategies for preparing and performing the selected sport in either heat/humidity or altitude. There was a strong emphasis on ‘Bloom-like’ terms to build rigour within the task and students were asked to apply and interrelate a number of different aspects of the exercise physiology course content (including nutrition, preparation phases and varying weather conditions).

Case study summary – School 3

School 3’s PES course and its component parts reflected the influence of a strong practical focus supporting student motivations, the ATAR practical performance and written examination preparation. While the integration of theory and practice was considered and planned, no specific plans for personalisation were included. Inclusivity and issues related to cognitive or physical abilities were catered for on an individual needs basis and did not play a part in the generic course design. The WA Curriculum Framework HPE learning area outcomes (see chapter 1 and 6) played no part in planning at all. The unit outline was a detailed document with a weekly breakdown, providing students with a range of information and supplementary resources. A clear and overt relationship between practical performance and course content was articulated.

Exercise Physiology was allocated the most teaching and learning time, however there was no greater emphasis placed on this content area, than any other. There was however, a strong emphasis on ‘practical’ and ‘doing’, although this was not always evident in the course design as ‘practical performance’ was only allocated the minimum 20% weighting, while ‘response’ tasks were allocated the maximum of 50%, with a relatively large

number of examination style tests undertaken, which suggest a keen eye on the end game as well. While preparation for the ATAR exam was a central feature, there appeared a good balance in the course, especially as practical tasks double as integrated tasks with Biomechanics and Exercise Physiology components embedded within the same task.

Mike's own personal definition of the 'integration of theory and practice' emphasised 'experiential learning', and use of engagement 'through' physical activity as the stimulus for understanding and applying course content. This definition and the general tenure of the course supported the Mike's assertion that the students are motivated by sport and physical activity and that this is a "Sports Studies" course, rather than a Physical Education one. There were informal and formal examples of practical based teaching, supported by the fact that students were encouraged to come to every lesson in PE uniform and that ad hoc outdoor spaces were commonly used. The requirement to always be in PE uniform was a simple but interesting signpost that practical was an important feature of teaching and learning, and emphasises that the venue for teaching was flexible with 'theory' teaching not restricted to the classroom.

There was clear evidence that aspects of the course are integrated, including during both assessment tasks, and class based teaching and learning activities. In one example, practical performance time, typically used for Volleyball, was also allocated to data gathering for an investigation task in the context of Ultimate Frisbee. Accordingly, while no specific pedagogical framework was evident it is clear that the intention to interrelate and integrate theoretical course content was common, consistent and overtly planned. There was a brief reference to established pedagogical practices such as Game Sense and the Tactical Games Approach, which may be the basis for this integration.

Students were challenged to view content through a number of different lenses. This included, during separate investigation assignments; the role of the ATAR Examiner and High Performance Manager. In both instances students interrogated data in and through this specific role, and applied knowledge about course content to a specific context. Students were also encouraged to challenge theoretical concepts and principles in the course and suggest other solutions if appropriate.

A range of resources, including websites, DVDs and worksheets were referenced, and included direct use of all three WA PES based texts (i.e. Heberle & Middleton, 2007; McPartland et al., 2010; Whipp et al.; 2011). No specific preference was articulated and

evidence suggests that the teacher dipped in and out of all these resources to source teaching and learning materials.

Mike had a clear view that the PES syllabus and the ATAR exam do not align in terms of the need for students to integrate theoretical content to practical contexts in the final examination. Nevertheless, there was a keen emphasis on terminology that required students to use higher order skills such as application and justification, as these were used in the ATAR examination. Accordingly, he placed emphasis on students reading the question and understanding what is being asked. Questions and instructions used in tests, exams and investigation tasks subsequently emphasised ‘Bloom-like’ terminology, for example, predict, justify and evaluate, which appeared in investigation tasks and examinations alike.

Case Study School 4

The following is a case study report from School 4; a country government high school, with an approximate enrolment of 600 students (Years 7 – 12) annually. PES is offered in Year 11 and 12. There is one class in both Year 11 and 12, with approximately 45 Students across both years.

The teacher who was interviewed for the case study (and who provided resources and materials) will be referred to as ‘Maria’. At the time of data collection Maria had 7 years’ experience teaching PES in WA and the NSW equivalent since leaving university in 2007. Maria taught all PES classes at the school, this plus three lower school classes of HPE accounted for her total teaching load. Maria had two years of experience as a PES ATAR written examination marker, and had attended a number of ACHPER State Conferences and a variety of professional learning events. She kept in touch with PES colleagues in a few other Country schools and there was some “very limited” sharing of materials and resources.

The philosophical approach to PES

Maria acknowledged that the “students are very involved in sport in the community, so their practical performance is strong”. Accordingly to support this she used “a very practical based approach” in which “theory into practice is every day”. Maria’s approach to teaching and learning is based on the belief that students learn through doing. This can be seen in her statement that “I learn best by doing and I think most of my students do as well. I have not tested that but it’s a reasonable assumption. The more practical I do to

apply the content, the better I think they understand it". As such there was evidence of a heavy reliance on school-based inputs, which are "made up of as much practical as possible", supported by a web based school intranet, which Maria refers to as the 'Wikispace'. Maria explained that, "a lot of what we do is based around the 'Wikispace' site. I chunk the syllabus up into big bites and organise the work and to a lesser extent the site accordingly". Maria explained that she runs lessons during school time and then students are required to use resources and materials on the site "to follow up". This approach placed a great deal of responsibility onto the students, but she felt that the students generally responded well, she stated,

I cannot say the course is 'online' as in a university course, but students need to view it like that a little. I set a lot of work to be completed in study time and for homework. I rely on them doing that, and generally with a few exceptions they play their part.

Interestingly, the school started senior school courses at the end of Year 10, "so that gives us some time to start this process and get them used to it. By the end of Year 11 most have got it or they have chosen to do something else".

A broad range of students was encouraged to take the PES course, although ultimately they did tend to be "the sporty ones". In support of this Maria highlighted that "I try to set tasks that allow them to draw on personal experiences and normally they will use sporting examples from their own participation to illustrate this. I certainly encourage them to do that". Despite this emphasis on using personal experience to inform responses, Maria was unclear whether her approach could be considered personalised learning, this can be seen when she posed the question, "Is this personalised learning? I don't know. Students certainly work in a personalised way. I would not have a clue how most of them manage their time. But as I say in most cases they do the work and results are ok". Student who did have problems with academic issues utilised the school tutor system, based on 'Old Scholars' and parents who can offer support both privately and/or directly in class.

The PES outcomes were not influential in the teachers' philosophical or pragmatic approach to planning or teaching the course. The teacher explained that, "I started teaching this course after they (the outcomes) were taken out of the syllabus. So I have never had to worry about them. They are on the assessment schedule but that's only because we are often reminded that we should still plan across the Curriculum Framework, in CCWA circulars and moderation events". The inference was that any reference to outcomes in documentation was purely tokenistic.

An understanding of the phrase ‘the integration of theory and practice’

Although Maria pointed out that, “it’s not a phrase I realised was in the syllabus”, she was familiar with the phrase ‘integrated theory and practice’ and understood it to mean, “theory and practice is using theory to explain how the body and mind function when we move. I guess we put theory into practice and apply theory to practice”. Maria’s understanding of the term “integration” emphasised the interrelated nature of the phrase and was firmly grounded in the spirit of the phrase articulated in the rationale of the PES course. This was highlighted in her comments that “we should be bringing this all together into one, relating different aspects together, applying them across different disciplines like biomechanics to physiology and coaching motor skills. Integrating movement principles and applying across sports, running to rugby, basketball, athletics, and so on”.

The promotion of ‘the integration of theory and practice’ through the PES syllabus

Maria clearly felt that the syllabus was culpable in not promoting the “integration of theory and practice” in PES. In regards to this matter she stated, “I certainly do not think the syllabus promotes it”. She drew attention to the fact that she did not even know that it was mentioned in the Rationale of the PES syllabus. She commented, “if it’s in there, like you say, I certainly haven’t even noticed a specific mention of it. The content is organised in sections, biomechanics, exercise physiology and so on, so I am going to have to say ‘no’. I am not sure it integrates it much”.

The role of integrated theory and practice in unit planning

Maria stated that, “after what I just said, I guess the integrated bit does not take place much at all in my planning”. Nevertheless she highlights, “but the theory and practice, absolutely, ‘yes’. I guess I can honestly say that it is a large part of what I do. I deliberately plan my course with it in mind”. Accordingly, she goes on to clearly articulate integrated features, commenting that “some tasks include large parts of applied theory and practice, where they have to apply content to practical examples. I talk about it a lot, including examples and videos, and we do practical examples to explain content”. While, the inference from Maria was that she does not ‘integrate’ theory and practice in her unit planning, her comments suggest otherwise, with this last comment (as previously) reflecting key features of the conceptualisation.

Integrated theory and practice ‘in practice’

Maria believed that they included theory and practice “quite a lot”, although she did not typically acknowledge this as being ‘integrated’. She stated that, “while I do plan for it, I always try to apply what we have done in class to whatever we are doing in the practical classes”. Maria drew on the following example:

... we are lucky to have good space and not much is timetabled at the same time as us, so I can always use the gym space or outside ovals for an impromptu practical class to work on some theory content. The other day we did a Padder Tennis class instead of Baddy, because we were doing Bernoullis and Magnus (Effect). Padder Tennis is good for that. I did some stop, starting. (the teacher explains stop, starting). Something happens, I stop it, recall or replay it, perhaps ask why I stopped it, or what happened, explain and off we go again. It can be a bit random, but I know that over a period of time sooner or later I’ll see examples.

Again while not overtly acknowledged as such, this example illustrates a number of key features of integration most notably the direct acquisition of knowledge and understandings as a result of participation in a physical activity.

Maria drew on assessment tasks as examples of theory and practice. She highlighted that the “movement analysis task asks them to apply Biomechanics to practice”. They applied “bio” principles to video analysis and then identified some teaching points to correct a skill. She stated, “it’s simple but it asks a bit of them. It’s good I think”. The importance of applying theoretical understandings to the video prompts was emphasised in the allocation of marks. Maria emphasised that “I give lots of marks to the applied bit”.

Maria emphasised the importance of the applied process, and indirectly acknowledged that it does take time, a trade-off she was happy to accept. She explained;

This is not the only time they do this type of task as we have a couple of practice runs. They can use sports from outside and video it or do it at school. The bright ones, I should say conscientious ones, spend the time at clubs or training collecting video, others wait to do it at school. They waste a little bit of time, but hey that’s part of learning. Some actually choose to draw, I do say diagrammatic is ok, other use software like ‘Dartfish’, or simply just run the family digital camera and get a few frames. Whatever, that’s all used for this task. I reckon this is all applying theory to practice. They have to collect materials and shots that are going to allow them to apply the corrections and the bio. If they don’t understand the bio they don’t know what to collect, does that make sense. I am happy with what they get, and as I say we do a few run throughs so it’s a bit of a pedagogy I guess.

Integrated theory and practice and the ATAR ‘external written examination’

Maria “hates” the ATAR examination and broadly speaking did not believe it required students to specifically integrate theory and practice to any degree. She acknowledged that, “there are some examples to draw on in the questions. A question is organised around a sporting situation or picture, like the slip catcher last year, the Rottnest channel swim a year or two ago, but ‘no’ it only just provides a situation to relate it to”. The inference is clear that Maria does not believe that a picture or illustration that contextualises the question is an example of integration. Maria drew on her experience as an ATAR marker to further illustrate this opinion, explaining;

I do some marking and know that the answer does not need to specifically apply to the situation or sport shown. Like, a couple of years ago, as long as you put the swimmers name, Mary or whoever it was, and mentioned swimming somewhere it in the sentence, you had ‘related’ it. What I am saying is, as long as you put something like ‘Mary would need to drink 4 litres of water in the 24 hours leading up to her swim to Rotto swim’, that’s relating to it.

She believed that “it would be better to ask the students to identify a sport or event, ‘in a sport or event of your choice’, and then apply their answer to that, at least you get some idea if they have made the connection”. Accordingly Maria was adamant that “theory and practice is not an important part of the exam, but it’s an important part of most kids understanding the content for the exam, so indirectly it is required”.

Maria recognised the importance of preparing students for the external examination and understands that it is something of a contradiction. She emphasised “but you cannot teach to the test all the time. I can do it with the best of them, my revision stuff on the site is all (ATAR) exam based. It is about getting ready for the exam as well. But it cannot all be just that, not for the sanity of the students and me”. As such Maria drew attention to the importance of keeping students motivated and engaged, hence while exam preparation has its place it cannot be the central focus all the time.

The role of ‘practical performance’ in the teaching of syllabus content

Maria generally tried “to apply what we have done in class to whatever we are doing in the practical classes”. However, she acknowledged the problems faced relating course content to practical lessons and explained that “half of my students don’t do the school based Baddy, so it’s a balance. I have to do enough practical Baddy to get those who will choose it through, while also realising that I am wasting others time, apart from the applied bits of the prac lessons”.

Accordingly, for those doing Badminton for the practical performance examination, Maria covered sufficient drills and exercises from the support materials in class time and then ran an “unofficially compulsory” lunchtime club for game skills. She explained “in this way I can still do some of the theory and practice stuff, and know that they are getting their baddy in at lunchtime”. She drew attention to the difficult position that the nature of the practical performance exam often placed teachers. Effectively, teaching a sport and allocating time to an activity that a large number of students would not use in the final external examination.

Resources and texts used in the teaching of PES

Maria used “the Whipp book (Whipp et al., 2011), because it’s got lots of worksheets and resources that go with it. It’s also good on content, probably better than the old one (Heberle & Middleton, 2007)”. She also felt that the Heberle and Middleton text was somewhat out-dated, because the syllabus had changed and some of the content was in different places. The school still had a class set of the “old one” which was sometimes used in class as an extra reference. Interestingly, the teacher observed that the students seem to “stick to one” and mostly use the “Wikispace”.

The PES unit outline

This section of the case study report is descriptive in nature and details the PES unit outline, practical context and assessment items developed by the teacher for the students.

Structure

The unit outline (an extract from this unit can be found in Appendix N) was a simply organised document, which included content (typically direct cut and paste from the PES Syllabus), the assessment items and a schedule of dates. No week-by-week or lesson-by-lesson breakdown was offered, rather four or five week chunks of content (typically related to a content strand) were scheduled. This somewhat reflected the ‘online’ nature of some of the teacher’s approach described earlier in this section. The unit outline was made available to students on the course ‘wikispace’, hence satisfying the requirement to make a copy publically available.

Content descriptions

Each of the six course content areas were planned across three terms of teaching, as below and in the following order:

Exercise Physiology – 5 weeks

Functional Anatomy – 5 weeks

Sports Psychology– 3 weeks

Motor Learning and Control – 6 weeks

Biomechanics – 6 weeks

Content descriptions for each week's focus were cut and paste statements directly from the PES syllabus (CCWA, 2009).

Practical

The school based practical performance context was Badminton. No specific references to practical performance syllabus content were included in the unit outline.

Assessment outline

Nine assessment points were allocated across the course (see Figure 8). These included two 'practical performances', three 'investigations' and four 'responses'. Weightings were allocated as follows; 'response' was allocated 45% (tests and exams). 33% of the total mark was made up of two semester examinations (20 and 13 marks respectively) and 'investigation' was allocated 25%. Neither of these were maximum weightings, therefore represented something of a compromise. However, practical performance did receive the maximum possible of 30%.

The assessments were planned evenly across the three terms. However 'investigations' were completed earlier in the year, while 'response' was more of a feature nearer the end. There was no overt link or integration between assessments in the schedule. The PES outcomes were referred to and there was a relatively even spread of these.

Assessment type	Assessment type weightings	Task	Content	3AB		Outcome 1	Outcome 2	Outcome 3	Outcome 4
				Due date	%				
Practical performance	30% (CC weighting 30%)	Task 1 Skill and game performance assessment	Developing physical skills, strategies and tactics	Ongoing Wk 1-16	15%	✓			
		Task 2 Skill and game performance assessment	Developing physical skills, strategies and tactics	Ongoing Wk 16 - 32	15%	✓			
Investigation	25% (CC weighting 20-30%)	Task 3 Nutrition for Athletes	Exercise physiology		9%		✓	✓	
		Task 4 Lab Reports	Exercise physiology, biomechanics		8%		✓	✓	✓
		Task 5 Movement analysis portfolio	Biomechanics, Motor learning & coaching		8%	✓	✓	✓	✓
Response	45% (CC weighting 40-50%)	Task 6 Test 1	Exercise physiology		6%			✓	
		Task 7 Semester 1 exam	Biomechanics; motor learning and coaching; functional anatomy; exercise physiology		13%			✓	✓
		Task 8 Test 2	Exercise physiology; motor learning and coaching		6%			✓	✓
		Task 9 Exam	Biomechanics; motor learning and coaching; functional anatomy; sports psychology; exercise physiology		20%			✓	✓

Figure 8. Case Study School 4 assessment schedule

Assessment tasks

The following is a summary of assessment tasks carried out by students during the whole course, as described in the outline. This summary included specific and detailed descriptions of sample tasks. All tasks were identified based on potential or perceived components of 'integration', either of theory and practice or between different course content areas.

Practical performance tasks

Practical performance tasks in the course closely followed syllabus content and advice provided in PES based support materials. The structure for all practical assessments typically duplicated the format of the ATAR examination, with static and dynamic skills followed by a conditioned response (game type play). There were two assessment points for practical performance. Both were exam style and undertaken on a given date in a formal examination situation. None of the practical performance tasks were overtly linked to any of the other five strands of content.

Investigation tasks

The investigation tasks were extended tasks with two or three weeks allocated to all three of these. The tasks aligned with the teaching and learning taking place in the unit schedule, for example, task four was a series of two 'labs', while task five required data collection, which could be done at school or at home. In both cases these tasks related to theoretical content covered in class and required students to apply this to a practical setting or context, typically data collected. The 'lab reports' were completed in class using the data collected to answer a series of questions.

Response tasks

The response tasks included two topic tests and two semester exams. Both topic tests covered Exercise Physiology, although the second test also incorporated Motor Learning and Coaching. The exams were both two and half hours long and comprised three sections of multiple choice, short and extended answer questions, as per the ATAR written examination.

Investigation samples

Movement Analysis (Appendix O)

The focus for the task was Biomechanics, and specifically movement analysis. Although not directly stated students were also required to suggest fault correction teaching points which incorporated aspects of Motor Learning and Coaching. Students were required to gather video, stills or provide diagrams of four key skills in a sport of their choice. The teacher previously explained that this could be done at home and be related to community sport that they play, or badminton done at school. Using a simple movement analysis sheet, made available on the course Wikispace, students conducted a movement analysis, identifying key skill deficiencies and biomechanical principles that applied to the skill. Students were required to outline the key teaching points related to each skill chosen, before finally explaining the application of two biomechanical principles to each skill.

Nutrition for a Marathon Runner (Appendix P)

This task focused on the Exercise Physiology content strand and explored the way in which athletic performance can be further enhanced with appropriate nutritional strategies and performance enhancers. Students were required to identify and explain the nutritional requirements of an athlete participating in a 42km marathon. Then, design a 12-hour diet plan for an athlete leading up to and after the event. Finally, students were asked to choose one nutritional performance enhancer and identify the effects that it would have on the athlete, highlighting its benefits and side effects.

Case study summary – School 4

School 4's approach challenged the intent of the PES course, in that integration was not overtly addressed and practical performances were deliberately diluted for specific student-centred reasons. There was a strong teaching and learning focus with students required to be independent learners. This was in part facilitated through a web based "Wikispace" used by students to follow up teaching and learning during class time. The site included a range of resources and support materials, including templates, worksheets and class notes, as well as CCWA documentation, past exam papers, and revision notes.

The unit outline was a very simple document and provided students with a teaching and learning shell which was organised in content descriptors taken directly from the PES

syllabus and allocated broadly into three to six week blocks, which the teacher (Maria) believed provided flexibility. Maria was lucky in having access to practical facilities as “not much is timetabled at the same time as us, so I can always use the gym space or outside ovals for an impromptu practical class to work on some theory content”. Broadly speaking Maria allocated relatively equal time of five or six weeks, to all content strands, except Sports Psychology. There did not appear to be any particular priority given to any specific content strand.

The WA HPE learning area outcomes were not influential in either the teacher’s philosophical or pragmatic approach to planning or teaching the course. The only reference to the outcomes was in the assessment schedule, which appeared purely an accountability exercise. ‘Personalisation’ was not an overt feature of the course although Maria drew on personal experiences to illustrate content strands and a large percentage of sports chosen by students for the practical performance examination were outside and community based, reflecting the students’ personal interests.

In the assessment schedule the maximum weighting of 50% was allocated to ‘response’ with 33% of the total made up of two end-of-semester examinations (13 and 20 marks respectively), which suggested a strong emphasis around these two ATAR examination style preparation opportunities. Investigation was allocated 25%, while practical performance also received the maximum possible of 30%. While there was no overt emphasis given to ATAR exam preparation in these two areas, both practical performance assignments were exam style, and the investigation based ‘Lab reports’ were completed in class under test conditions.

The school based practical performance context was Badminton, however a large percentage of students chose sports participated in outside school for the external examination. Accordingly practical performance class time was divided between skills and drills for Badminton and theory and practice time, which focused on illustrating course content. Additional opportunities to develop Badminton skills, drills and game play were offered during “unofficially compulsory” lunchtime sessions.

Maria understood the phrase the ‘integration of theory and practice’ to mean, “theory and practice is using theory to explain how the body and mind function when we move. I guess we put theory into practice and apply theory to practice”. Accordingly, she acknowledged the two-way nature of theory and practice. There was a strong emphasis placed on theory and practice with Maria articulating a number of these approaches, such

as, drawing on a student's personal sporting experiences outside school, including, the option of gathering performance data for assignments; "stop, starting"; applied theory and practice in assessments tasks (e.g. the Movement Analysis assignment) and laboratory reports; and the finally the application of class based theory teaching in practical performance lessons. However, as Maria was not aware of the 'integrated' intent of the course referred to in the Rationale of the PES syllabus, there was no focus on this in planning of teaching and learning or assessments.

There was an undercurrent of preparation of students for the ATAR written examination, for example, one of the investigations was completed in class under test conditions, following data collection prior to this. All practical performance tasks followed the external examination structure and there were two full semester examinations.

Time was not seemingly a major concern for Maria. Rather, the impression was that time was saved by trading off practical performance for more content-based teaching, while students were also expected to follow up class work at home through the Wikispace. Two texts were typically used, one a set text (Whipp et al., 2011), the other an older class set (Heberle & Middleton, 2007). Other resources were provided and sourced through the aforementioned Wikispace site.

Summary

Chapter 7 has focused on the second phase of the research study and summarised findings from a series of case studies that examined how teachers in schools translated, contextualised and pedagogically arranged the PES course syllabus, examination and support materials during initial implementation. The chapter has reported on what 'integrated theory and practice' arrangements (relating to curriculum, pedagogy and assessment) have emerged amidst enactment. Analysis and discussion of the case study findings follows now in Chapter 8.

Chapter 8

Analysis of Case Study findings

The intention of the four case studies was to investigate what texts and translations of the PES course's central focus, to integrate theory and practice, were made during "enactment" (Ball et al., 2011), and specifically what pedagogic practice to support this emerged in the secondary field.

In summarising each individual case study it is evident that pedagogical practice in the secondary field, relating particularly to the 'integration of theory and practice' was significantly affected by texts accompanying and 'surrounding' the official PES syllabus. Assessment (both school based and external) and time, which might loosely be described as relating to a 'pragmatic discourse' (Penney & Evans, 1999) were key issues shown to influence enactment in the case study schools. Accordingly, in the following analysis of findings from the four case study schools, I use the discourses emerging from phase 1 (outlined in Chapter 6 in particular) and other discourses emerging from the case studies, as a framework for analysis. The chapter therefore addresses the following:

1. Teacher understandings of integrated theory and practice
2. The "Integration of theory and practice" in enactment
3. Alignment to the WA Curriculum Framework HPE Learning Area Outcomes
4. Personalised learning
5. Unit Organisation
6. Assessment, including alignments to the ATAR Examination; the nature of tasks and weightings; and, the ATAR exam
7. Time

Teacher understandings of integrated theory and practice

All case study teachers were asked to clarify their understanding of the phrase 'integration of theory and practice'. Importantly it needs to be acknowledged that the PES syllabus, while claiming that the "integration of theory and practice is central to studies in this course" (CCWA, 2009, p. 2) and hinting at Arnold's (1979) conceptualisation of learning *in, through and about* movement (see Chapter 2) in early versions, did not define this phrase or provide any specific guidance for teachers in relation to its prospective role in course design, assessment or teaching and learning practices.

Various all case study school teachers were able to articulate an understanding of the phrase ‘integrated theory and practice’, although comments typically focused on the terms ‘theory and practice’, rather than the ‘integrated’ aspect of the phrase. Sam at School 2 understood the ‘integration of theory and practice’ to be “about experiences”, and the “consistent application and practice of content through experiences, as well as written consolidation”. He said that students needed to “experience it and then put it into practice”. Importantly, Sam placed a strong emphasis on experiential learning linked to propositional knowledge as being central to this definition, highlighting that integrated theory and practice is not “simply a real life example, because that is not experiencing it”. Tom at School 1 shared the emphasis on practical experience, activity and application but clarified that “theory is the content of the syllabus, therefore integration of theory and practice is activity that supports the students understanding of the content” and importantly “motivates them to learn the syllabus content”. Similarly practical application was central to Maria’s (School 4) understanding, however integration was perceived to be a two-way process, as illustrated by the statement that:

... theory and practice is using theory to explain how the body and mind function when we move. I guess we put theory into practice and apply theory to practice. The integration component however is that we should be bringing this all together into one, relating different aspects together, applying them across different disciplines like Biomechanics to Physiology and coaching motor skills. Integrating movement principles and applying across sports, running to Rugby, Basketball, Athletics. (Case study teacher 4)

This two-way process was also articulated by Mike at School 3 who while stating that “theory is knowledge, practice is practical application”, also stated that, “It’s doing and applying knowledge to doing and vice versa”, and concluding that, “it’s theory to practice and practice to theory”. Importantly for Mike, understanding was not limited to syllabus content alone. Mike made the point that “the theory does not have to be syllabus content. I am interested in the kids viewing this course from a number of lenses which are content based, but also, what do the examiners see when you perform or write something down?” Accordingly, his focus was on the students understanding the examination process and then applying that knowledge to their written work and practical performance.

Interestingly the centrality of the term ‘integration’ to PES was not widely acknowledged in the teachers’ definitions. Sam and Maria at Schools 2 and 4 did not appear to realise that the term ‘integration’ appeared in the Rationale of the PES syllabus. In their enactment of PES there was little or no emphasis placed on the interrelationships between

‘sub-disciplines’ (Thorburn, 2008), for example, Exercise Physiology and Biomechanics. Rather, the ‘sub-disciplines’ were seemingly ‘siloes’ from each other. Indirectly, however, emphasis was placed on “integrated application” (Hay & Penney, 2009) through the two-way nature of practice and theory (‘prac/theory’), where the development of understanding started with ‘experience’ through engagement *in* practical context, and followed a sequential link of ‘practice to theory and back to practice’ (‘prac/theory/prac’). In this latter approach, integration took place when ‘meaning’ and understanding of knowledge through experience was then developed through more high-order cognitive processes that was subsequently used and applied. The perceived importance of experiential learning as a motivational tool was also evident in the case study teachers’ data. Specifically, the understandings of integrated theory and practice of all teachers highlighted the view that, for many students taking PES, there was intrinsic value attached to participation in physical activity.

In referring to the section above, I refer back to the definition and matrix (see Table 1) of ‘integration of theory and practice’ provided in chapter 2, to acknowledge that the data highlights that all case study teachers working as they were in the secondary field of reproduction and in the context of PES in WA, broadly interpreted the ‘integration of theory and practice’ in Arnold-like ways with components being *similar* to the definition. The teachers acknowledged that their emphasis on the term ‘practice’ was on participation *in* physical activity, not simply the use of illustrations or examples of a pictorial or visual form. They also placed an importance on experiential learning, supporting the view that kinaesthetic awareness *through* practical ‘doing’ attaches or “transports” (Thorburn, 2008) meaning *about* knowledge (or ‘theory’). All teachers emphasised the importance of participation *in* physical activity playing a strong motivational role in learning.

The ‘integration of theory and practice’ in enactment

As highlighted above, while there were some synergies between different teachers’ understandings of the phrase ‘integration of theory and practice’ in the secondary field, with all of the case study teachers broadly acknowledging the complex nature of the ‘theory/prac’ terminology and defining ‘integrated theory and practice’ in Arnold-like terms, there were also distinct variations in the texts emerging in course design, assessment and pedagogical practice during enactment across the schools. The following section analyses the influence of the PES syllabus on pedagogical arrangements, in particular the ‘integration of theory and practice’. It then explores the differences and

synergies referred to above. This includes identifying some examples of practice, which are used later in Chapter 9 to consider whether any “creative and original” (Ball et al., 2012) integrated theory and practice arrangements emerged during enactment. The section finishes with some comments in relation to how physical activity and ‘doing’ are employed in the context of Arnold’s (1979) conceptualisation of learning *in, through and about* movement during enactment.

The PES Syllabus, including the course rationale, content, units and assessment requirements

The PES syllabus was seen as a major sticking point in the promotion of an integrated theory and practice approach (All Schools). Tom and Sam from schools 1 and 2 respectively, felt that despite the rhetoric in the PES course Rationale, the syllabus did not require students to integrate theory and practice. They felt that the syllabus did not provide specific guidance and had “few signals” (Sam) to teachers towards the integration of theory and practice, subsequently schools often did not approach PES in that way (all schools).

Data suggest that assessment types could be broadly interpreted and adapted (e.g. School 2 where ‘investigations’ are turned into tests). Subsequently, the integration of theory and practice in assessment was not seen as a central feature as portrayed in the Rationale, a part of the syllabus that was not widely read and often not noticed (School 1, 2 and 4).

All schools directly or indirectly referred to a lack of alignment between course rhetoric in the syllabus and the external examinations, in particular the emphasis placed in the ORF (by the CCWA) on testing the content knowledge in the syllabus. As a consequence, teachers felt compromised in their enactment of the PES and specifically, questioned the application of integrated theory and practice in favour of more pragmatic considerations.

The second part of this section analyses individual case study schools integration of theory and practice in enactment of PES. It begins with School 3, where the most expression of integration of ‘theory and practice’ against the definition and matrix offered in Chapter 2, was seen. Thereafter the case study schools are presented in an order that reflects their different degrees of expression in relation to the matrix (School 3 is followed by School 4, and then School 1 and finally School 2).

School 3

In School 3 Mike indicated that the ‘integration of theory and practice’ was a “fundamental” feature in shaping the enactment of PES and stated that, “the unit is mapped out to include syllabus content, aligned to a practical illustration or a practical session”. To enable flexibility in pedagogical approach, students were required to come to PES in PE uniform even when they were timetabled in a “traditional classroom” (Mike), in this context this meant four walls, tables and chairs. Free teaching spaces including the school swimming pool stand and the spare corner of the oval were used in an opportunistic basis. Mike felt that this flexible approach to where they did their teaching reflected and supported the integration of theory and practice. He referred to regular “off the cuff” teaching and learning, using opportunistic instances *in* movement and ‘practical’ to illustrate knowledge previously covered in a “traditional classroom” setting. It is interesting to note Mike’s use of language around what he deemed a “traditional classroom” and the way in which this reference is used to position an oval or pool stand as something significantly different. It is clear that in Mike’s case the language of teaching spaces is integral in maintaining the ‘theory-prac’ divide.

Mike was able to articulate a clear pedagogical framework that drew on Arnold-like concepts shaping learning through an integrated theory and practice approach for his students. This took the form of ‘experience (typically *in* movement)/applied *about* theory/practical application’, typically including a practical experience or demonstration of the lesson focus, followed by some applied theoretical inputs, supported by some activities to explore the topic, and finally practical application. Mike stated:

I think I do it day in day out. I start most, but not all, lessons with a practical based experience or example of what I am going to focus on. It might be a few balls spinning out in the yard or a bit of You Tube in class or quickly on my ipad. Whatever, it’s something practical that they see or do. I might then give them some theory inputs, then apply it to a situation or sport, so its practical, theory, apply, that’s the basic plan (Mike).

Mike drew a brief comparison between this approach and the Tactical Games Approach (TGA), which use Arnold’s conceptualisation of learning *in, through and about* movement as an “underpinning philosophy” (Pill, 2013, p. 6). In the TGA tactical awareness is developed through the framework of ‘game/practice/game’, typically contextualising a tactical situation and associated skill set in an introductory game type situation, before developing understanding and skill set(s) through a prescribed practice, and finally, putting that understanding and skill set back into a game for application.

Hence the practical ‘experience’ *in* acted as contextualisation, and ‘theory inputs’ focused on the development of understandings *about* knowledge. Finally, the linkage(s) between theory and practice is developed *through* ‘application’.

Another example of integrated theory and practice referred to by Mike in School 3 was what he called, “through the examiners eyes”. Students took on the role of the examiner (“let’s experience, and practically do the examiners role”) and interrogate the course content from the examiners perspective. Mike stated, “I give them the marking key or some points to address and they consider their own and each other’s work and performance”. The approach turns the table on integrated theory and practice, as ‘practice’ acts as a prompt for reflection from two perspectives – a student’s and examiner’s. For example, firstly, ‘how have my peers interpreted the questions and /or task and applied the knowledge?’, and secondly, ‘what can I learn about how the examiner views my work?’ from this practically based activity. On the surface this arrangement uses the constructivist features of Arnolds *in, through and about* conceptualisation, to experience, design and apply understandings to a practical setting on dual levels, performer and examiner.

Mike believed that Task 2 titled ‘Practical Investigation and Report: Motor Learning and Coaching ‘Ultimate Frisbee’ game performance analysis of self and others’, would be the best assessment task for illustrating his approach to planning using the integration of theory and practice. He believed that this was where “kids use practical” (Mike used fingers to indicate inverted commas) to get into the content or theory, whatever you want to call it”. Similar to the example above, while essentially designed as an assessment task, this task had a constructivist edge. The task was staged and provided a frame for students to potentially learn *in, through and about* movement. Students completed three ‘conditions’ which started with a game experience’ in Ultimate Frisbee to “create a ‘notational game analysis system’ (NGAS) that allows game-based data to be collected”. The task guided students towards a NGAS that incorporated and interrelated a number of theoretical syllabus content strands (Biomechanics, Motor Learning and Coaching, and Developing physical skills, strategies and tactics). In the final two conditions students applied the NGAS to skill execution and gameplay situations and collected data accordingly. Following this data-gathering phase, students presented their data, discussed the effectiveness, and critically analysed the notational analysis that they had designed. Then they applied the “Motion Analysis Model”, and designed a tool by which the mental influence on their subject’s performance could be assessed.

The use of terms such as apply, design, create was overt in the task which represented an extended version of the basic framework referred to earlier: ‘experience (typically *in* movement)/applied *about* theory/practical application’. The experience was used as the basis for the application of ‘theoretical knowledge’, which in turn was used for data gathering. Data that the students had gathered was used for Biomechanical analysis, with the results of this then informing an intervention that was applied to the performance.

School 3 also included aspects of the integration of theoretical and practical components of the syllabus in the practical assessment as well. For example, on two occasions practical performance tasks acted as both assessments of practical performance, and also a data gathering exercise for a separate task. Another required students to use two performance analysis models and, in short, collect data, analyse self and others, apply theoretical ‘sub-disciplines’ and design an intervention applied through identified relevant coaching methods.

School 4

At School 4 Maria believed that she could “honestly say” theory and practice played a “large part” in the enactment of PES at her school, especially in terms of assessment and pedagogical practice, and she used it “quite a lot”. Her understanding of the term ‘integration’ was associated with the integration of various aspects of course content (for example, Biomechanics and Functional Anatomy), rather than necessarily making a link to knowledge *about* PES, *in* practical performance. Nevertheless, there was evidence of pedagogical practice in which the conditions for learning were arranged to integrate theory and practice.

An example of this was what Maria called “stop/ starting”. Maria explained this in the context of Tennis and the teaching of ‘spin’, stating, “something happens, I stop it, recall or replay it, perhaps ask why I stopped it, or what happened, explain the reason or the point I want to make, and off we go again”. She admitted that it could be “a bit random”, but that she knew that “over a period of time, sooner or later I’ll see examples”. While considered “random” by Maria, a clear framework is evident: ‘practical example - explain and apply theory to example - practical’ and so on. This pedagogical practice had features of what Havighurst (1952) termed ‘teachable moments’ during which she takes the opportunity to illustrate and/or praise and/or reaffirm learning in context, typically looking for good performance or specific areas for attention. For example, stop the drill

or game, ‘I have just seen’, ‘that’s excellent, well done’ or ‘this is the area we need to work on, ok back into it’.

The arrangement optimised the value of practical experiences implicit *in* movement and providing a reference point for illustrating PES knowledge and reflecting on previous learning. It was a pedagogic arrangement that contextualised knowledge *about* movement included in the course, *in* movement.

Assessment tasks at Maria’s school also reflected some elements of the ‘integration of theory and practice’. In Task 5 - Movement Analysis, students were required to gather video, stills or provide diagrams of four key skills in a sport of their choice. Students used a simple movement analysis sheet, to identify key skill deficiencies, and biomechanical principles that apply to the skill. Finally, students designed teaching points for fault correction. The collection of data for the task could be done at home and be related to community sport that they played, or Badminton done at school. Maria explained:

I give lots of marks to the applied bit. They apply ‘bio’ principles to video and teaching points they have identified to correct a skill. It’s simple but it asks a bit of them. I reckon this is all applying theory to practice. They have to collect materials and shots that are going to allow them to apply the corrections and the ‘bio’. If they don’t understand the ‘bio’ they don’t know what to collect, does that make sense. I am happy with what they get, and as I say we do a few runs so it’s a bit of a pedagogy I guess.
(Maria)

This task was described as “fairly standard” (Maria at School 4) and clearly required students to apply theoretical understandings to a practical setting, but it was this final point that I believe was crucial. The collection of data to carry out the “fairly standard” task, required specific application of theoretical understandings to identify examples and record each phase of the skill, which could then be used for analysis, hence allowing students to demonstrate their understandings as best as possible. Poor understandings of biomechanical principles and subsequently inadequate recordings would prevent the student demonstrating their knowledge. Arguably, the integration of theory and practice was achieved through a set sequence: theoretical inputs – collection of data to demonstrate understanding – application of theory to data analysis.

School 1

In School 1 Tom’s articulation of the phrase “integration of theory and practice” typically manifested itself by the “flip flopping between theory and practice”. This took two forms,

firstly, ad-hoc “flip flopping” where interrelated principles were linked. Tom elaborated this understanding by explaining:

A lot of my students play sport at club and community level, some of them to a good standard, I've got a state swimmer, colts footy player, and a couple of girls play a good standard of Netball. They look at their performance on video all the time, especially the swimmer, their coaches are talking to them about stuff and using vision to drum it home, so in principle that's I what I am doing, using their practical performances to show them the theory or the content as I have planned it in my unit. (Tom)

The approach was similar to Maria's “stop/starting” at School 4, and essentially sought to contextualise knowledge *about* movement included in the course, *in* movement and their own performance.

Secondly, the pattern of timetabling of classes across a week served to enable a focus on a link between specific content knowledge and practical performance. One ‘theory/prac’ lesson per week was explicitly scheduled, alongside two ‘theory’ lessons (meaning in a classroom; four wall and chairs) and one practical performance session. A conscious attempt was thus made to engage students in an ‘integrated theory/prac’ activity. This did not necessarily span more than one content strand, rather, integration focused on learning specific content knowledge through a practical learning context, such as unassessed lab activities. For example; The ‘Heat Lab – Exercising in the heat’ (see chapter 7), was an investigation task and included three steps: data collection, analysis and application. Firstly, students participated in physical activity by running 400m, wearing different layers of clothes to simulate varying conditions. Time and heart rate (student wore a heart rate monitor) were taken and recorded, and a scale was used as a framework to guide understandings of exertion. Secondly, students analysed the data by answering a number of questions that focused on the advantage and disadvantages of acclimatisation. Thirdly, students then applied their understandings to a runner preparing for a 1500m in Cairns, in tropical Australia. The task sheet included references to ‘higher’ order terminology such as “analyse”, “examine”, “using” and “explain” which presuppose an action in advance, and supports data collection (for analysis and/or evaluation) or participation in activity to apply knowledge or experience by “designing or implementing”. The task focused on learning *about* the human body's physiological responses, and employed involvement *in* physical activity as a starting point for the development of understandings *about* relevant PES course content, finally requiring students to produce suggestions for adjusting a contextualised training programme.

Elsewhere the assessment schedule in School 1 focused heavily on exam style tasks for students, even in ‘investigations’. Typically, practical stimulus and examples of performance-based data were used for most exam-based and investigation tasks, but these were not related to actual practical activity.

School 2

In School 2, there was little evidence of planned integration of theory and practice or indeed theoretical content strands, either in the unit outline, pedagogical practices or assessments. There were plenty of examples of practical or sport based examples being used to illustrate propositional knowledge *about* physical activity or movement, or to act as a prompt or context in a task or a stem to an exam (for example; the Olympics and Soccer World cups in different continents as contexts for tasks on competing in varying environmental conditions) or for test style questions (for example; photographic stills of a badminton serve used as a basis for a question on segmental interaction). Practical performance sessions in volleyball were used on an ad hoc basis to illustrate aspects of content knowledge covered in other (theory) lessons, but the connections were not planned and were not a feature of the unit outline. Practical performance tasks were primarily skills-focused, reflecting the external ATAR exam (see chapter 1). Typically, assessments in School 2 took a ‘response style’ or examination format. This occurred even in ‘investigations’ with students given questions to research prior to answering short and long answer questions in class. Both the school-based exams (practical and theory) were discrete and separate from each other, with no overt link between the two evident.

The enactments evidenced in case study schools 3, 4 and 1 in particular, recognise that as Kirk et al. (2002), Macdonald and Brooker (1997), Hay and Penney (2009), Brown and Penney (2013) and Brown (2012) have suggested Arnold’s work continues to be a useful reference point for “situating physical activity as a site for learning and assessment, and promoting integrated thinking about content and contexts of learning in PE” (Hay & Penney, 2009, p. 393). Indeed it is evident from the case study schools that physical activity typically acts as a ‘site’ or starting point for the development of knowledge and understanding *about* human movement, and in particular PES content areas such as biomechanics, anatomy and exercise physiology. Accordingly, the emphasis placed on the term ‘practice’ is typically on ‘doing’ or participation *in* physical activity. However, the appearance is of shallow engagement with the notion of *in* and that actually the ‘doing’ often revolves around learning *about*, i.e. the propositional knowledge described in the PES course content.

Importantly, Arnold's notion of learning *in* does not focus on the use of physical activity for the purposes of engagement with 'other (external) learning', rather as Stolz and Thorburn (2015) emphasise, "meaning is derived from being consciously engaged through doing something that is personally meaningful to the agent in question" (p. 5). Broadly, the emphasis in case study schools 3, 4 and 2 is using 'doing' as Thorburn (2007) highlights, as a potential stimulus to elicit reflection and its associated benefits by making linkages between knowledge and personal experiences, typically created through 'doing'. This supports Brown and Penney's (2013) contention that the "logical starting point" for thinking about pedagogy, in senior physical education "must be the (moving) body" (p. 19), which can then be "developed and utilise[d]" (Hay & Penney, 2009) in further practical activities, contexts and situations

The pedagogical arrangements evident in this analysis most commonly employed 'prac/theory' (rather than 'theory/prac') with 'experiences' gained through engagement in physical activity or movement used to 'open up' or contextualise understanding *about* propositional knowledge. However, the arrangements were not always 'one-way' acknowledging the potential for an understanding of knowledge to inform further experience, moving from 'doing' and understanding to use, application and review of the knowledge. Accordingly there were a number of different examples of 'prac/theory/prac' employed by teachers. In moving the discussion on I foreground that the examples of data discussed here from the secondary field will form the basis for further discussion in Chapter 9 relating to the nature of 'integrated theory and practice' and in particular whether any "creative and original" integrated theory and practice can be identified in enactment.

Alignment to the WA Curriculum Framework HPE Learning Area

Outcomes

Phase 1 of the study, centring on the Official Recontextualising Field (ORF) (Bernstein, 1990, see Chapter 3) established that the alignment of senior school courses to the K-10 WA Curriculum Framework and its learning area outcomes was a primary policy imperative of *Our Youth Our Future* (CCWA, 2002). Initial PES course syllabus and materials reflected this. However, this phase of the study also confirmed that the alignment to learning area outcomes was effectively terminated in 2008 with the Minister for Education making a decision to end assessment via outcomes. Thereafter, advice in the PES course syllabus guided schools and teachers to "use the outcome progressions

along with the unit content and contexts to; plan appropriate lessons and activities for their students, and; develop specific assessment tasks and marking keys” (CCWA, 2005, p. 4).

Despite this it is evident that other texts designed in the ORF, most notably the redesign of assessment requirements in the 2009 PES syllabus and the written external exam, exacted significantly more influence. Accordingly in enactment teachers at case study schools employed a pragmatic approach that as the HPE learning area outcomes played little or no part in course accountability, they need not attend to them in planning and/or delivery. There were a few references to the learning area outcomes on task sheets at School 2 and 3, but these played lip service to the alignment of PES and the lower secondary HPE curriculum or were simply historical references yet to be deleted, or materials designed in the PRF such as initial course texts (Heberle & Middleton, 2007). These texts were still very usable and significant as content guides and continued to have influence, just not in relation to the learning area outcomes.

Personalised learning

During enactment the general interpretation of the overarching discourse of personalised learning was some way from the original conceptualisation of ‘Personal participant and participation profiles’ articulated in the 2005 syllabus or the ‘personal interests’ rhetoric of 2008 (see Chapter 6). Personalised learning was overtly articulated by three of the four teachers (School 1, 2 and 4) as referring to students’ choice of sport for the practical performance exam. In contrast to the other teachers, Mike at School 3 believed that “it’s inherent in everything I do”, relating syllabus content to “them and their sporting interests”. Regardless, there was evidence across all schools of regular (School 1, 3 and 4) and/or occasional (School 2) gathering of personal data, typically during labs for investigations, which students used to analyse and reflect on their own performance, and that of others. As discussed previously, there were also examples of experiential teaching and learning practice in all schools, which allowed for kinaesthetic awareness, which was innately very personal.

The case study data appeared to largely support the earlier assertion in Chapter 5, that like the learning area outcomes, somewhere ‘personalisation’ appeared to have got lost, having been “bashed on the head” (CEO School based representative) by more powerful texts produced in the ORF, most notably the practical performance examination.

Unit Organisation

Three of the case study schools used the same timetable arrangement for PES, comprising one practical performance and three theory based lessons per week. School 2 varied in allocating one practical performance, one ‘theory/prac’ and two theory-based lessons per week. Accordingly they were allocated a ‘practical’ facility (e.g. a gym or oval) for practical and/or theory/prac and a classroom space for theory. There was evidence of some variation within this arrangement. In School 3, for example, students were required to come in PE uniform even when they were timetabled in a classroom. School 1 allocated one lesson as a ‘theory/prac lesson’, which was generally allocated to lab style activities; and in School 4 timetabling of facilities for teaching was flexible.

Assessment tasks were mapped out across the school year to support content taught. Content was generally organised in terms of the perceived degree of difficulty, with the easiest content taught at the beginning of the year and the hardest at the end and nearest to the exam, although this was not the case in School 4. Biomechanics and Exercise Physiology were the content strands allocated the most amount of time, with each allocated on average six weeks. Motor learning and Coaching, Functional Anatomy and Sports Psychology were allocated approximately 4, 5, 3 and 3 weeks respectively. All schools had exams at the end of semesters 1 and 2.

In all case study schools there was a clear and direct relationship between the PES syllabus content descriptors and what was taught, reflected in the comment of Sam at School 2 that “if it’s not in the syllabus we don’t cover it. If the syllabus uses one term to describe something that may have another name, we use the syllabus version. Even if the textbook’s use different terms and concepts sometimes, we stick to what the syllabus says”. There appeared little variation from the syllabus in all case study schools. In this sense the PES syllabus designed in the ORF clearly held the status of being an authoritative text in curriculum and assessment planning (see Chapter 3).

Alongside the PES syllabus the case study schools typically used a core textbook for the units they planned. The textbooks were produced in the PRF by various commercial publishers over a period of four years, and were in all cases WA based PES specific texts, although mention was made of other references. School 1 used *Physical Education Studies for WA* (McPartland et al., 2010), while Schools 2 and 3 used *Physical Education Studies: a resource for Units 3A to 3B* (Heberle & Middleton, 2007) and School 4 used

Physical Education Studies 3A/3B - Textbook for teachers and students (Whipp et al., 2011).

Some teachers explained why they chose specific texts, while in others the reasoning was simply economic. For example, Sam at School 2 chose to use the Heberle and Middleton (2007) text because he felt it was “organised well”, compared to others. Mike at School 3 also used the Heberle & Middleton text but explained that this was “simply because it was the first one out and we bought a class set”. He added, “it’s now a little dated in terms of syllabus alignment”, and explained that they had encouraged students to personally buy the McPartland et al. (2010) text as well. Maria at School 4 also only used the Heberle and Middleton (2007) text because they had a class set, this was used in conjunction with the newer Whipp et al. (2011) text.

Various these textbooks and other resources were used in conjunction with each other. Some assignments (for example, Remember the Titans in School 1) were taken directly from a text, but this was not commonly the case, and the data did not suggest that textbooks overly influenced assessment. Thus, while textbooks were important tools in the enactment of the course, there was not an overwhelming sense from the data that the textbook(s) guided pedagogy during enactment of PES. None of the case study teachers linked the textbooks to pedagogical practice, and in this regards it may be that these artefacts produced in the PRF were not convincing enough to influence other authoritative texts produced in the ORF, and merely acted as a convenient content source.

Assessment

In examining how the various teachers approached school based assessment in the PES, this section considers data from Chapter 7 that focused on the three forms of assessment prescribed in the syllabus, namely Investigations, Response and Practical Performance (see Chapter 1). In particular, it highlights the influence that authoritative texts produced in the ORF (in particular the PES syllabus, and the written and practical external examinations) had on assessment practice in the secondary field and in turn pedagogical practice during enactment.

The PES ATAR written examination was considered to be “knowledge based” (Mike at School 3) which required students to “hit the marks” (Tom at School 1) by using key syllabus based terminology. As indicated above, texts produced in the ORF were therefore, a major influence on readings and responses seen across the case study schools.

Accordingly, many of the teachers' assessments were overtly designed to reflect that students would ultimately take the PES ATAR exam (all schools). The maximum weightings of 50% were offered to 'response' tasks at Schools 2 and 3, while School 1 and 4 allocated 45%, although there was flexibility to weight this as low as 40%. Of the 50% allocated to 'response' tasks, end of semester exams made up between 30% and 33% in Schools 1, 3 and 4, and 35% in School 2 of this total weighting.

All case study schools allocated the maximum 30% to 'practical performance'. Schools 2 and 3 allocated the minimum 20% to 'investigation' (although this can be allocated up to 30%) while Schools 1 and 4 allocated 25% to 'investigation'. Aspects of 'investigation' were also reflected in test-like conditions (School 1, 2 and 4), variously taking the form of in-class essays, with students responding to extended answer questions to simulate the written component of the ATAR exam (School 2). In the case of School 2, they had essentially chosen to allocate 70% of marks to 'response' style tasks, although 30% was wrapped up in 'investigations'. Investigation tasks were somewhat varied, ranging from research based 'in-class' extended answer task (School 2), to two or three week research based tasks, including data gathering, analysis and written response. Despite the breadth of some of these investigations, they were typically allocated only a small amount of marks, 10 marks being the maximum at School 1, but 5 marks being the norm.

All case study schools included a practical performance exam(s) or test(s) worth up to the total 30% in the case of School 2, for the school based course. This was despite the fact that the sport that they were being assessed on may not be the context they presented in for the ATAR exam (see Chapter 6 for clarification of the ATAR performance exam format and arrangement). The practical performance assessments in all schools typically took the same form as the ATAR exam, with static and dynamic skills followed by a conditioned response (game type play), using the PES Practical Support Materials (produced by the CCWA, see Chapter 6) as the basis for this. School 3 included one practical assessment, which was based on 'self-analysis', involving students identifying significant errors before suggesting fault correction actions. Students then applied the same process to game play, during which they analysed video recordings and identified and explained any strategies and/or tactics that the team being analysed could employ against the opposition. Following application of these strategies and tactics students commented on the effectiveness of these tactics, before finally suggesting how these may have benefited the team.

There was some convincing, if limited, evidence of integration between different assessments in terms of theory and practice or indeed across assignments. For example, data used for multiple purposes, such as ‘practical performance’ data as a basis for the theory based ‘investigations’ (examples include, School 3’s ‘Ultimate Frisbee’ game performance analysis of self and others assignment, and the Volleyball Practical, and School 4’s Movement Analysis). However, the comment was made that “if the exam reflected an integrated approach more, we would change our approach” (School 3). Typically, the integration of theory and practice is not seen as a central feature of assessment. Teachers felt compromised and question the integration of theory and practice in favour of more pragmatic discourse.

Time

Time was consistently referred to in three (Schools 1, 2 and 3) out the four case study schools as a significant feature in all facets of PES enactment. Only the teacher at School 4 did not articulate time as a concern. As such this section analyses the role time played in planning units, designing lessons and assessments, prepare resources and marking work.

While none of the teachers questioned the amount of time allocated (typically four lessons per week of approximately one hour duration) by their school to PES (as this would typically be the same for all senior school courses), School 1 and 2 both felt that PES was heavily content laden or as Tom said a “big syllabus”, and consequently saw a compromise between the time allocated and their ability to “get through content” (Sam at School 2).

Significantly, integrated theory and practice, by way of lab work or experiential learning, was considered *time consuming* in terms of time taken to teach and prepare (School 2). Broadly, there was a significant emphasis on ‘teaching to the (ATAR) test’ in terms of the approach taken to planning, sequencing content and the nature of assessment tasks. This was reflected in all case schools through a notable (but not universal) emphasis on ‘response’ style assessment types (such as exams, topic tests and in class essays), including approaches to ‘investigations’ which were finalised in class by way of long answer ATAR style questions (School 2 and 4). The intention was not only to prepare students for the final exam, but also to *speed things up* in terms of marking and time spent gathering data and researching for longer style ‘investigations’. There was some contrast to the above at School 3, with the view held that the integration of theory and practice (be

it in a ‘theory’ or ‘practical performance ‘lesson) actually “saves some time”, the two being mutually complimentary and effectively “killing two birds with one stone”.

In School 1 and 2 the propositional knowledge in the syllabus was taught in order of perceived degree of difficulty, as related to the students and time allocated to content adjusted accordingly. What was perceived to be the easiest content (Functional Anatomy and Sport Psychology) was therefore given least time and taught early in the year and the hardest (Biomechanics and Exercise Physiology) given most time and taught as close to the exam as possible.

Across the case study schools one period a week was allocated to practical performance (although in School 4 this lesson was sometimes used for other matters). Various, the focus for the practical performance sessions were the static and dynamic drills and conditioned responses performed in the exam. In one case (School 1) little emphasis was placed on practical performance in the school setting as many students chose to be examined on sports that they typically participated in community sport and not the context chosen by the school. In this case the school left the practical performance aspect of the syllabus “to them”. School 4 also had a large number of students who chose sports from outside the school, this school also did not prioritise the practical performance exam to the same degree as the theory paper. Accordingly, time was saved for other theory based inputs.

Summary

Focusing on Bernstein’s Secondary Field of Production (see chapter 3), the intention of the four case studies was twofold. Firstly, to investigate the translations of the PES’s central focus to integrate theory and practice during enactment and secondly, to identify what pedagogic practice emerged as an expression of this ‘integration’ in schools.

Locating the analysis presented here within the broader study, I point to the need for pedagogic practice to be seen in and amidst complex contexts of curriculum development, negotiation and interpretation across the recontextualising (ORF and PRF) and secondary fields. In the context of PES in WA clear tensions emerged amidst enactment, between the senior schooling reform intent (see Chapter 1 and 5) and artefacts produced in the ORF, such as the PES syllabus, and the format and content of the ATAR external examinations.

The data presented reflects that, while some evidence of integrated theory and practice was apparent, there was a lack of clarity for teachers in relation to what the pedagogical intent of PES was in this regard. This compromised their responses. In addition, there were several factors, not the least being ‘time’, that openly inhibited the development of ‘integration theory and practice’, as articulated in the course rationale as a central facet of PES in WA. The analysis above identified that teachers in enactment developed translations and “meanings” (Penney, 2012), which might collectively be described as a ‘pragmatic discourse’ (Penney, 2013), constructed and variously influenced by the artefacts produced in the ORF and the teachers own personal beliefs, values, and experiences. These profoundly affected planning and pedagogical practice.

The data highlighted that broadly speaking, these teachers saw the ‘integration of theory and practice’, similar to the definition offered in the Chapter 2, which acknowledged the complex nature of the ‘theory / prac’ terminology and defined ‘integrated theory and practice’ in Arnold-like terms and in particular learning *in* and *about*. These teachers supported the view that kinaesthetic awareness through practical ‘doing’ attaches or “transports” meaning and knowledge (Thorburn, 2008). Typically, however, the appearance is of shallow engagement with the notion of *in* and that the ‘doing’ often revolves around learning *about* content described in the PES syllabus. Essentially while there was evidence of some integrated theory and practice pedagogy, there was little or no sign of an established ‘integrated theory and practice’ pedagogy across schools.

This analysis has also considered school based assessment practices emerging from the case study school data. In particular it has foreground discussion in Chapter 9 that will highlight that texts designed within the ORF such as the PES syllabus and the written and practical external examinations represented profoundly powerful texts influencing practice in the secondary field, to the extent that they became the overriding text in all matters regarding assessment and pedagogy during enactment.

Central to the discussion in the following chapter is *what* “creative and original” integrated theory and practice emerged from this enactment. Importantly, however, Chapter 9 also pursues key findings apparent in this analysis and that of the other chapters relating to *how* and *why* a pragmatic discourse “trapped” (Brewer, 2003, p. 592) the overarching discourse, resulting in this being somewhat ‘lost in translation’ within and across the fields of recontextualisation and the secondary field.

Chapter 9

Discussion

The following discussion addresses the issue foregrounded in the opening paragraphs of the introduction to this study. Specifically, that despite the central intent of PES course in WA to integrate theory and practice, findings revealed that during “enactment” (Ball et al., 2011) this message appears for the most part, to have been *lost in translation* in the “logics of practice” (Hardy & Lingard, 2008), with evidence of only *modest* integrated theory and practice pedagogy in schools to support this course intention. Consequently, in this chapter I re-visit and critically engage with the research questions that guided this study. I firstly discuss competing tensions and contestations evident in the ORF and PRF. Here I address data that highlights how competing texts featuring in the design and implementation of PES in WA produced distortions of the overarching discourses, that were identified as part of research question one. Secondly, I consider why “pragmatic discourse” (Evans & Penney, 1999, p. 44) and issues such as syllabus alignment, the format and content of the external examination, and time had a profound impact on local translations of the new PES in the PRF and secondary fields, and thus, on the emerging pedagogical practice in the secondary field. Thirdly, I focus on the secondary field to again engage with the data from the case studies to discuss the particular forms of ‘integrated theory and practice’ that emerged during enactment and the “creative and original” practice seen amidst this.

The chapter and indeed, the study as a whole, foregrounds that, as indicated by Penney and Evans (1999), Ball et al. (2011), Reid and Thorburn (2011), Thorburn and Collins (2006) and Penney (2013), it is naïve to believe that the philosophical basis of a course such as the PES in WA, especially a primarily pedagogic one, will take precedence over what Penney and Evans (1999) refer to as “pragmatic discourse” (p. 44) and accountability features of “surrounding texts” (Penney 2013), such as the ATAR exam and syllabus adherence. Furthermore, it highlights that senior physical education pedagogy is clearly impacted by many influences, not least the degree of alignment and distortion of interests and discourses seen at the nexus between curriculum, pedagogy and assessment. Teachers in this study were quite openly and understandably seeking to reconcile curriculum and classroom practice with the needs of their students, in the context of the end game, namely the ATAR exam for PES in WA. The sections that follow expand upon the tensions that they sought to navigate and resolve amidst their readings of and responses to the new PES course.

Competing tensions and contestations in the ORF and PRF

Thorburn and Collins (2006) highlight the “general difficulty of transferring curriculum policy to programmes of meaningful student learning” (p. 4). Thorburn (2007) has further pointed to the challenges faced by high stakes PE courses in “transferring philosophy to policy and practice” (p. 181), and drawn on the work of Brewer (2003) to warn against PE becoming unnecessarily “trapped by certification” (p. 592). Acknowledging these comments, this section predominantly draws on data associated with the first two research questions to discuss the specific challenges faced in WA in transferring the overarching discourses (identified in Chapters 5 and 6) into course design in the ORF, and then during enactment in the PRF and secondary fields. I specifically point to *how* and *why* competing and “surrounding” texts (Penney, 2012) pertaining to the initial course design, and a “pragmatic discourse” during enactment contributed to a disjointed and “trapped” course focused on content and examinations. The environment I describe was one in which the discourse of integration of theory and practice was difficult, messy and challenging to enact. I contend that the impact of “pragmatic discourse” across the ORF and PRF led to a failure of the curriculum development to produce the outcomes articulated in the rationale of PES in WA, and consequently in enactment the PES course was driven by pragmatics rather than rationale. As I discuss below, this shift in (and displacement of) discourses is at the heart of the notion of the intent of integrated theory and practice being *lost in translation*.

The extension and alignment to the WA Curriculum Framework (1999)

In Chapter 5 I discussed the CCWA commitment to maximising learning outcomes for students through a seamless focus on outcomes from kindergarten to year 12, as expressed in the *Curriculum Framework* (CCWA, 1998). I drew attention to the CCWA’s explicit emphasis that new post-compulsory arrangements were intended to provide “for a coherent K-12 focus on the outcomes and principles of the Curriculum Framework and a seamless transition from compulsory to post compulsory education” and make “the outcomes of learning and the standards students are expected to achieve explicit for them, their parents, potential employers and post-secondary institutions” (CCWA, 2002, p. 14). Necessarily, within the ORF, alignment to this existing text was an important starting point for those involved in the PES reference group (see Chapter 6). It is worth recalling that the PES course template (as for all courses) had spaces for the HPE learning area outcomes, elaborations, and progressions to be articulated. It was a non-negotiable

structure; all the spaces needed to be filled in, and hence there was the scope for passive or no debate regarding the structural framework for the new PES course. The situation could thus be seen as one in which the Curriculum Framework was a text lodged within a text (Luke, 1995) (the new PES), which was itself set within a text (a prescriptive template for all new senior secondary courses).

I refer to this as an example of how the expression of key discourses was at this earliest point influenced or as Bernstein (1990) would refer “appropriated” by the creators of another text or artefact (for example, the template). This was a restrictive text or a non-negotiable frame for course/text development within the ORF, setting a particular trajectory for the new PES course in WA. Furthermore, it contributed to the creation of an environment whereby the course was driven by content and the nature of the external exam(s). As data presented in Chapter 6 shows, the termination of outcomes in 2009 led to a dominant focus on content that was also reflected in the nature of the external written and practical exam. This shift and the nature of the examinations then developed, played a major part in limiting understanding and expression of the integration of theory and practice in particular. Data from the PRF and case studies has highlighted that teachers typically ‘taught to the (content focused) test’ and adopted a pragmatic discourse that favoured time saving and ‘examination pedagogy’ (a phenomenon also discussed by Brown and Penney (2016) in their analysis of senior secondary physical education in Victoria).

Two examples stand out as particularly illustrative of these tensions arising amidst the attempt to extend the Curriculum Framework in WA and the alignment the new PES to the HPE learning area outcomes. Firstly, the naming and recontextualisation of the PES outcomes, as different to the HPE learning area outcomes, and secondly, links between these outcomes and external assessment.

Recontextualising and reconceptualising the HPE outcomes

In Chapter 6 I established that HPE learning area outcomes for the Curriculum Framework, namely Self Management Skills (SMS), Attitude and Values (AV), Interpersonal Skills (IPS), Skills for Physical Activity (SPA) and Knowledge and Understanding (KU), required recontextualisation or alteration to suit the PES. Consequently, the outcomes were adjusted to include the following: Outcome 1, Physical Activity Skills (PAS); Outcome 2, Self-management and Interpersonal Skills for Physical

Activity (SMS/IPS); Outcome 3, Knowledge and Understandings for Physical Activity (KU); Outcome 4, Values and Attitudes for Physical Activity (VA), (CCWA, 2009, p. 5).

Within the overall outcomes-based orientation of the new senior secondary courses (see chapter 1), all the content needed to address and provide potential for students to achieve in all outcomes. This requirement had significant implications for curriculum, assessment and pedagogy, as the nature of the outcome would dictate content to support it. Interestingly, however, while the data suggests that there was a presumption that the integration of theory and practice would play a profound role in the course, including, “I assumed theory into practice would be the key driver for this course” (CEO Representative), there is little evidence of these assumptions making it beyond being just that; assumptions. Hence, talk of pedagogy and more specifically, the interrelationship between content disciplines to support the conceptualised course outcomes, was essentially missing in the ORF. Data supported Almond’s (1997) assertion that pedagogy is often the “missing ingredient” in conversations regarding curriculum, assessment and pedagogy in physical education (see also Penney & Waring, 2000). Debate centred around issues such as, but not exclusive to, the challenging nature of VA and what content applied to this and whether it could be assessed; and, what appropriate content would support SMS/IPS, which had been combined without any evidence of a rigorous and convincing conceptual debate, and which distorted the original meanings. Already, content-oriented and pragmatically rather than pedagogically focused discourses were drivers in the ORF.

Privileged positions

Significantly, the data presented in Chapter 6 pointed to an “elephant in the room” (CEO representative) in the ORF in the shape of competing texts and discourses. Notably, there was a hierarchy at least implied within the learning area outcomes, with PAS and KU privileged. This undercurrent of preferential treatment was explained by the CEO representative, who stated, “the elephant in the room was that we all knew that PAS and KU were the most important. It was an unsaid, but there was an underlying hierarchy in them. It was always going to come to a head”. It appeared that a game of word association was being played out in the ORF, with the KU outcome effectively meaning knowledge about sports science, the PAS meaning purely ‘practical’ (as contrary to Arnold’s conceptualisation referred to in chapter 2 and later in this discussion), and VA together with IPS/SMS being equated to socio-cultural content. To some extent at least, data from actors in the ORF implied that an approach was with the view taken that ‘if it is not

immediately recognisable as sports science or practical, it is socio-cultural content'. As such VA and to a lesser extent IPS/SMS, were ultimately destined to be marginalised in this PES development. The conceptualisations around the VA and IPS/SMS outcomes for PES that were presented in the ORF were perhaps too esoteric, with the consequence that the link between these outcomes (VA and IPS/SMS) and content in the syllabus was not overt and clear. This contrasted to the seemingly secure and historically understood link between KU and Sports Science (Biomechanics and Exercise Physiology) and between PAS and the practical demonstration of sport technique (a phenomenon not unique to senior secondary PES or to WA). The privileging of these outcomes contributed to a divide between the content and outcome in the texts produced within the ORF and ultimately also compromised the potential for the expression of interrelated and interdisciplinary pedagogy in the ongoing processes of recontextualisation and enactment of the PES.

“Conflict and contestation is rife in the PRF” (Singh, 2002)

Singh (2002), drawing on Bernstein’s work, points out that “conflict and contestation is rife in the PRF, as agents of recontextualisation struggle for control over the pedagogic discourses that regulate the production of pedagogic contexts” (p. 577). More recently, Luke et al. (2013) have reflected, “curriculum settlements are by definition unstable, contingent and volatile” (p. 9), a notion further illustrated by Penney (2013) in the context of the Australian Curriculum HPE development.

The data presented in Chapter 6 revealed that by September 2008 and following the release of the PES course text to schools in 2007, a bloodless coup by a “coalition” (Goodson, 1988) of Heads of Department, who carried sufficient weight of opinion and credibility, led to concerns about the lack of clarity and non-scientific language associated with the VA and socio-cultural content in the course. As a result, the VA outcome was replaced by an additional KU outcome, with existing content then revised to support this shift. The new outcome split the existing KU outcome, into Knowledge and understanding of movement and conditioning concepts for physical activity, and Knowledge and understanding of sport psychology concepts for physical activity. The shift to sport psychology, rather than socio-cultural or even social-science, reflected the strength of discomfort or uncertainty associated with socio-cultural knowledge and understandings. Sport psychology was seemingly a focus that brought with it a distinct, recognisable and more appealing discipline base.

This commentary, based on evidence from Chapter 6, highlights matters of influence within the ORF that extended to agents associated with the PRF and secondary fields. It connects with what Penney et al. (2015) refer to as the “who, what, how and why” (p. 54) of policy and pedagogy in HPE or in this case, senior physical education. Using this framework I reach the following conclusions:

What? In recontextualisation, texts relating to VA and socio cultural content were seen as too complex. *Why?* They were lodged within multiple other texts, including assessing VA, understandings of socio-cultural content and the literacy of sociology. Accordingly the conceptualisation was viewed as unclear and unpalatable because of its complexity. Consequently there was confusion, assumptions and opinions expressed in the PRF particularly, that were equally poorly conceptualised and conceived, but nonetheless reflective of a body of thought amidst key actors, that was sufficient to hold sway amongst dominant actors in the ORF. *Who?* Key actors in privileged positions in the PRF, brought palatable and pragmatic, yet confusing and presumptuous arguments or restrictive texts, to contest some unpalatable and challenging course conceptualisations, proposed in texts arising from the ORF. The power in the simplicity of the text presented by those in privileged positions in the PRF was ultimately critical in setting particular direction for the ongoing development of the PES. *How?* Political lobbying, in tandem with the broader resolve to terminate Outcomes Based Education (OBE) in 2009 with the Ministerial decision to end assessment via outcomes using levels and returning to grades, produced a profound change to the nature of PES as conceived in the ORF. Thereafter, advice in the PES, guided schools and teachers to “use the outcome progressions along with the unit content and contexts to; plan appropriate lessons and activities for their students, and; develop specific assessment tasks and marking keys” (CCWA, 2005, p. 4). Teachers at the case study schools confirmed that thereafter the PES learning area outcomes played little or no part in course planning and delivery, with focus having firmly shifted to content. The most significant and sustained reference to the learning area outcomes was to balance assessment types (Schools 1 and 4). Within the PRF, the discourse to extend and align learning area outcomes from K - 10 into Senior Schooling, was dramatically re-appropriated, marginalised and ‘lost’. Significantly however, the content in the PES syllabus, and indeed textbooks initially produced (Heberle & Middleton, 2007), were still outlined and positioned with the learning area outcomes in mind. This created a new textual tension or distortion that was most overt at the assessment, curriculum and pedagogy nexus.

The linkage between the PES outcomes and external assessment

Attention now turns to the linkage between the PES outcomes, which were conceived in the ORF, and the external examinations. Data from Chapter 6 highlighted that the planning of external practical and written examinations did not start in any detail until the second year of course implementation and the first year of examination, in 2008. This said, it should be acknowledged that throughout the production of the 2007 course text, there was a constant pressure on the writing team to focus on the course being ‘externally examinable’. This was confirmed by a CCWA Curriculum Officer:

This is something that was always at the fore of pressures when I was writing for the initial course text and that came to a head at the point of articulating outcomes and content. It was part of the why around VA being dropped and similarly socio-cultural being pushed back and replaced by sport psych – which was seen as far more concrete and ‘examinable’.
(CCWA Curriculum Officer, personal communication, 16 July 2015)

The external examination texts were subsequently, critical texts produced within the ORF that then powerfully influenced readings of the PES syllabus text. Nevertheless despite this, the Chief Examiner for the written examination development commented that, “the outcomes were never part of our examination planning”. Consequently, PES external written papers did not include any overt reference to the relationship between questions and the outcomes. Nor did they articulate any interrelated or inter-disciplinary features. It appeared that a narrow content-focused discourse of assessment (particularly prominent amongst actors associated with the PRF) and the production of influential examination texts that aligned with this; effectively marginalised the PES curriculum development exercise as a whole. It highlights that teachers and others acted as gatekeepers in the PRF and secondary fields but furthermore, acted as gatekeepers more broadly, to trap the curriculum initiative and ensure that it progressed with an emphasis on dominant, familiar discourses. Seemingly absent or excluded amidst the development of the examination texts, was a discourse of pedagogy. Yet, as the case study data highlighted, these texts became powerful drivers of pedagogy.

The examination texts thus were highly selective in their representation of PES discourses. They were powerful in repositioning or in some case sidelining overarching discourses that had provided the foundation and original directions for the course development (see chapter 5). The examination texts were subsequently afforded a privileged position pedagogically in the secondary field, where data revealed that school

based assessments and teaching and learning approaches were significantly influenced by the content and nature of both the external written and practical exams.

Personalisation

Similar to the fate of PES outcomes, the face of personalisation and personalised learning, articulated in early iterations of the PES syllabus profoundly changed during the course design process. The tailored central organiser of “personal participant and participation profiles” (CCWA, 2005, p. 21), that had the potential to bring together integrated, interrelated and interdisciplinary integrated aspects of the course content, ‘morphed into’ (and was reduced to) the choice of the student’s own practical examination context, or analysis of their own personal data during a lab or investigation. The former is another example of the pragmatic discourse centred round the examinations. These two articulations of personalisation were a long way from the original conceptualisation and vision of personalisation as a pedagogical driver of curriculum and assessment in PES.

Turning to case study data, it is interesting that personalised learning nevertheless found some way into teachers’ consciousness, but the purportedly “central focus” of integrated theory and practice seemed to struggle to reach this level of acceptance. A key distinction appears to be that the acceptance of (a version of) personalisation has arisen from consistent appropriation of the discourse to mean two distinct, pragmatic things; choice of activity, and a particular focus for investigation tasks. Teachers have focused on the pragmatic bottom lines of course content, practical performance and assessment, less so pedagogy to support broader visions of personalised learning in physical education. This repositioning and re-articulation of personalisation further highlights the dynamic relationships between the ORF, PRF and secondary fields in determining the expression of particular discourses in the texts and practice of the PES.

“Pragmatic discourse” (Penney & Evans, 1999)

As explained in Chapter 2, Penney and Evans (1999), MacPhail and Halbert (2005), MacPhail (2007), Thorburn et al. (2009), Thorburn and Horrell (2011) and Penney (2013) amongst others, have in a range of different contexts, highlighted the slippery nature of text and the influence competing texts and priorities can have on the pedagogical and curriculum practice in enactment. In addressing the second and third research questions, my data suggests that translations of the PES in the PRF and secondary field were intimately driven by a pragmatic discourse and were influenced by a web of texts which

compromised and distorted curriculum, assessment and pedagogy in the PES in WA (as an official text and as enacted in schools). This pragmatic discourse goes to the heart of Ball's belief that "contemporary policy and enactment is multi-layered and multi-dimensional, and involves 'interpretations of interpretations' (Rizvi and Kemmis, 1987)" (Ball et al., 2012, p. 3).

This section provides a synopsis of ways in which this 'pragmatic discourse' influenced schools' and teachers' approaches to the PES in WA, and more specifically, to the integration of theory and practice (as evidenced in the case study schools). The discussion centres on surrounding texts, including: the official text(s) associated with the course most notably the PES Syllabus and its design, content and requirements; practical support materials; the external practical and written ATAR examinations; and time considerations. I also acknowledge the influence of other texts linked to professional development, textbooks and sample support materials.

Official text(s) - The PES Syllabus and Practical Support Materials

Penney (2013) highlights that:

... the publication of a final version of a new curriculum document is far from the end of "meaning making" and that the process of, "implementation" is destined to be complex and contested and will play out differently in different contexts. (p. 190)

In the context of PES development in WA, it is evident that the influence of the course syllabus, the key official text produced in the ORF, was profound. Agents and teachers in the PRF and secondary Field "in the processes of making sense of the new instructional discourse" (Kirk & Macdonald, 2001, p. 565), transformed and reconstructed the text in their local contexts, and subsequently had significant influence on the direction and enactment of PES, and in particular the integration of theory and practice. Furthermore, it is evident that other official texts, variously informed by the PES syllabus text, and particularly, the examination texts, had a fundamental bearing upon these processes.

Specifically in relation to the notion of 'integrated theory and practice' data suggests that teachers interpretations of an openly "writerly" (Ball et al., 2011) text have exposed the PES syllabus itself as a major sticking point in the expression of integration in curriculum, pedagogy and assessment practices. Ball et al. (2011) acknowledge that official texts (such as the PES syllabus) typically contain "writerly" and "readerly" aspects. "Writerly" aspects require teachers to "bring judgement" (p. 614) and context to their interpretation.

However, they also acknowledge the importance of “readerly” aspects as providing a basis for interpretation. Accordingly, one comment from Sam at School 2 is particularly pertinent; that, “if it’s not there, we are not going to cover it. I cannot really put my finger on a phrase or bit of specific content that says apply this in a practical situation”.

In reporting research focusing on the (then) new Victorian Certificate of Education Physical Education (VCE PE) Brown and Penney (2013) pointed to the critical need for coherency between policy and assessment in course design to avoid aspirations such as the integration of theory and practice being compromised. In the PES course in WA, while the rhetoric of integrated theory and practice was strong in the rationale of the official text (a section of the syllabus that evidently is rarely read), it was evident that many other sections of the text and accompanying official texts did not support this approach. For example, the syllabus did not provide a specific definition of ‘integrated theory and practice’ and neither the PES text nor accompanying texts provided clear official guidance or signposts to teachers as to how this central overarching discourse of the PES should be reflected in curriculum, pedagogy or assessment. This in part reflects that there is a structural tension in the ORF in terms of the respective authority various agents have across curriculum, pedagogy and assessment and particularly, that pedagogy is effectively deemed beyond the remit of the CCWA such that it’s official texts can’t stray into what is regarded as matters of pedagogy that are the domain of the systems, schools and teachers.

Within the PES course syllabus, there was also no overt alignment between the PES course rhetoric of integration and content in key areas of the syllabus document. Most obviously, particular ‘theory’ (content related to biomechanics, exercise physiology, human anatomy, etc.) and what was positioned as practical knowledge, skills and understanding, are positioned separately, and described as such in the PES text and similarly, in the official examination texts.

Assessment guidelines in the PES syllabus are on one hand specific, in terms of assessment types and boundaries for weightings of these various types, yet on the other hand these can be broadly contextualised and interpreted. This was always part of the design, but it may be that the balance between the two is somewhat *out of kilter*. The data from this study suggests that the flexibility within the assessment types provides further opportunity to expand the ‘teach to the test’ philosophy. The most notable examples of this were that three out of four of the case study schools allocated the minimum 20% to ‘investigations’ and the maximum 50% to ‘response’ (tests and exams), and that, in some

schools, ‘investigations’ are often designed in such a way as to include additional test style features. Hence, in recontextualisation (both in the ORF and PRF) and in reproduction in the secondary field, a number of competing texts and tensions between discourses have come to the fore, the most influential being the examination discourse and associated texts. This study has shown that in relation to integration in senior secondary PE, this compromised the PES syllabus and in turn, teachers pedagogical practice.

As I discuss later it was within these investigations that some of the most convincing evidence of teachers planning towards integrated theory and practice can be found – yet, as a mode of assessment investigations were marginalised. Amidst the flexibility within the syllabus and a lack of rigorous moderation and other checks and balances within the ORF the examples of clear and substantive integration appear few and far between in comparison to exam/test style assessment, and reaffirmed teachers’ major preoccupation with traditional exam/test style assessment in senior school courses (as previously highlighted by MacPhail, 2007, and more recently by Brown & Penney, 2016).

The practical support materials produced by the CCWA represented another influential ORF text, which perhaps unintendedly, reinforced particular discourses in assessment. It is apparent that the CD’s featuring static and dynamic drill exemplars, provided to all schools, were commonly (and in some case systematically) used as the basis for ‘practical’ lessons. One specific quote from Chapter 5 highlighted their impact:

Once the practical examination was on people’s radar, the notion of practical changed to mean purely performance.... the arrival of support materials changed the way practical was viewed. Now it was about performance and using your practical lessons for improving raw performance. (CEO Teacher representative)

In the secondary field the pedagogic implications were that the message about linking theory to practice got lost amongst the influence of a powerful assessment text. The “readerly” (Ball et al., 2011) features of the PES syllabus and accompanying assessment texts were not strong enough to support the integrated theory and practice message that in the rationale was claimed to be ‘central’ to the course. Consequently, distorted and, I believe, inappropriate features arose from the “writerly” (Ball et al., 2011) dimensions of the official texts, with the result that theory and practice became further isolated from one another.

Accordingly, the integration of theory and practice is not seen as a central feature of assessment practices arising in enactment of the PES. Teachers in the case study schools reported feeling compromised and questioned the integration of theory and practice, instead favouring a more pragmatic discourse and approach. Where integrated theory and practice was articulated, it was associated with motivating for students or as appropriate to their learning styles, rather than being seen as a central plank of the course.

External practical and written examinations

In foregrounding the role of external ATAR assessment in the ‘pragmatic discourse’ surrounding PES, it is worth reflecting back on Singh (2002) and Maton (2007) who, in referring to Bernstein’s secondary field of production in particular, stress that assessment practices send strong messages about what counts as legitimate knowledge and knowing, and play a significant role in establishing “what counts as valid acquisition of instructional (curricular content) and regulative (social conduct, character and manner) texts” (Singh, 2002, p. 573). Similarly, Kirk (1989), Macphail (2007) and Thorburn (2004), Hay and Penney (2013) and Casey and O’Donovan (2013) all point to assessment as a powerful text influencing teachers’ pedagogic practices, to the extent that it can become the overriding text in curriculum, assessment and pedagogic considerations. Indeed as Casey and O’Donovan (2013) highlight in a recent study “although student enjoyment and engagement were important, the teachers highlighted throughout that ultimately the exam results were central” (p. 14). MacPhail (2007), Bryce and Humes (1999) and Brewer (2003) in the contexts of the SGPE and HGPE in Scotland (see chapter 2) have all expressed concerns about the “conspicuous” (Bryce & Humes, 1999, p. 657) role of assessment in these examinable courses, and have variously discussed how the effects of external assessment procedures on PE have influenced teachers’ pedagogical practice of primarily teaching to fulfil the knowledge and understanding obligations of these courses. Indeed it was similar pedagogical concerns that in part, led Penney et al. (2011) in the context of PES in WA, to explore the potential for digital technologies to facilitate a pedagogic shift in relation to the assessment and specifically, the external examination.

Perhaps not surprisingly therefore, it was clear from the findings of this study that of all the texts produced in the ORF (including the PES syllabus and practical support materials) and in the PRF (including textbooks and professional development events and resources), the external ATAR exams and marking keys were very clearly the most influential in relaying the message about what was ‘important’ and ‘valid’ in the PES course. Consequently, it was these texts that impacted most profoundly on teachers’ practice. In

contrast to the approach taken with other key texts such as the syllabus, teachers followed the message relayed in the examination papers intimately. For example, two teachers in case study schools (Tom and Sam) held the view that students are rarely required to interpret data during the external examination. Accordingly they believed that teaching, learning and assessment that focused on data gathering and analysis was not required, and hence they did not do any. In addition, the view was expressed by Tom from School 1, and Sam from School 2, that the written examination typically related to a number of discrete content areas in the syllabus (i.e. biomechanics, exercise physiology, etc.). Consequently they perceived that there was no need for students to have inter-disciplinary knowledge, and they do not address this.

With regards the practical examination, the perception amongst the case study teachers appeared to be that this purely involved a live performance of static and dynamic drills, and a conditioned response/game-like situation; no more, no less. The CCWA support materials prescribed the skills to be assessed and provided samples of the drills and situations used to assess these. Accordingly, the findings from the case studies and semi-structured interviews confirmed that this support material was what directed the teachers' pedagogy. It was common practice to simply rehearse the prescribed skills and drills published in the official text.

Overwhelmingly, the data from the case studies also conveyed that practical performance was not viewed as important or as much of a priority as the written examination. In addition, there was no need for students to draw on practical performance knowledge, experience and understandings for the written examination. As evidenced earlier in the study the inclusion of practical performance in the course was an overarching discourse during the development of PES in the ORF. However, the nature of the ATAR practical performance examination, as it played out during enactment, was such that students were not required to apply theoretical knowledge and understanding to their practical performances. Accordingly preparation for the exam was interpreted as simply practicing the skill, drills and conditioned responses or students were left to their own devices to prepare for these requirements in their respective club and community contexts. The notion of integration as a central facet of the course had been explicitly lost in the practical examination context. As an official text the practical examination and iterations of it progressed over the initial years of implementation, are located with the ORF. The examination texts have therefore been influenced by other ORF texts associated with assessment in senior secondary courses in WA. This influence was particularly evidenced

in the concern about the overall mean score of the course, which I addressed in the introduction to this thesis, and fiscal concerns about the cost of the live external practical performance exam. Also, a reluctance to move away from the live format as a context that was perceived to hold fewer risks than technologically based alternatives explored in research (Penney et al., 2011).

The data indicated that in the PRF little recontextualisation related to the practical examination has taken place. Various external bodies (such as sports associations, professional associations and independent providers) have provided support to teachers on a commercial basis, and tertiary institutions in preparing students for the profession have turned to agents in the ORF to facilitate pre-service teacher engagement.

However, teachers in the secondary field were quick to see the wood for the trees. As pragmatic creatures they quickly understood the bottom line, and effectively gate-kept an acceptance of the practical examination scenario, which allowed their cohort of students to score well and use existing skills. There was a passive acceptance of this practical examination scenario as it allowed many students to use existing skill sets without too much additional input, affording time to be spent on the written examination.

Time considerations

MacPhail (2007) highlights that “time has been reported as a perennial issue in the innovation literature and is at a premium in schools, especially when changes to the curriculum take place” (MacPhail, 2007, p. 55). Similarly, Casey (2012) and Casey and O’Donovan (2013), all point to time, be it actual or perceived, as an issue that can compromise the choice of pedagogical practice in senior school PES. In support of this previous literature, a common feature of the ‘pragmatic discourse’ expressed in the data, both in the PRF and secondary field of this study, was concerns about time, typically driven by teachers’ desires to cover content and prepare students for the ATAR examination(s). Subsequently, teaching, learning and assessment targeted key content, such as biomechanics and exercise physiology (which were allocated the most time by all case study schools); focused on exam style assessment tasks (both practical and theory); and featured perceived ‘short cuts’ to syllabus coverage.

Concerns regarding time have been at the forefront of teachers’ mind since the introduction of PES in WA. As early as 2007, Jones and Alexander (2007) reported that “time factors featured as the overwhelming obstacle for teachers in planning and delivery of the PES content. Time for planning; time for getting all the content covered; time for

attending and engaging in PD to increase personal knowledge of the course content” (p. 5). In particular, a major concern was the constant reference and observation regarding “doing practical and attempting to provide students opportunities to show improvements while trying to get through the content as well” (p. 5).

Similarly in data from this study some six or seven years later, a number of teachers still considered time taken to get through content, and the preparation and delivery of integrated theory and practice teaching and learning, as time consuming. However, the emphasis in and around the issue of time has changed somewhat, with preparations for examinations now playing a significant recontextualising role. Across the case study schools there was evidence of teachers ‘teaching to the (ATAR) test’ in terms of the approach taken to planning, marking, sequencing content and the nature of assessment tasks. The approach is one in which, what is deemed most efficient and effective for the examination, drives teachers’ use of time. As explained in Chapter 8 propositional knowledge in the syllabus was taught in order of perceived degree of difficulty (Schools 2, 3 and 4), with the easiest content given least time and taught early in the year and the hardest given most time and taught as close to the exam as possible. Theoretical knowledge (biomechanics, human anatomy, etc.) and practical performance were typically planned and taught separately across the case study schools, a tendency seemingly accentuated by the syllabus and the nature of the examinations.

As explained in Chapter 8, a large percentage of assessments across the case studies, for the most part, reflected ‘response’ and/or exam-like features, including for example, ongoing and prolonged assessment types, under the ‘investigations’ category, turned into ‘responses’ (tests), to further simulate exam situations. More extensive (or arguably authentic) approaches to ‘investigations’ were perceived as (too) time consuming, both in terms of students completing and marking, and from the perspective of compromising prospects of getting through the syllabus. Similarly, while some integrated theory and practice approaches were variously employed, the predominant pedagogy was through ‘chalk and talk’ and/or exam style tasks. The view is also expressed that the collection of data through investigative style tasks is ‘time consuming’ and a ‘luxury’.

A further time-saving strategy seen in School’s 1 and 4 was the expectation for students to independently develop practice performance skills through clubs and practices out of school or at lunchtime. This was especially the case for those students not choosing to participate in the school based practical sport for the purposes of the external examination. In this regard it is important to recall that students can choose to be externally examined

in sports that they have not studied as part of their school PES course in either year 11 or 12. Through the apparent emphasis on time saving and its influence on practice, it is evident that this ‘pragmatic discourse’ has created a tension between assessment and examination on one hand and curriculum and pedagogy on the other, subsequently throwing curriculum, assessment and pedagogy profoundly out of kilter.

In contrast to these findings, Penney (2012) reaffirms the critical inter-relatedness of curriculum, pedagogy and assessment, acknowledging that “the dynamics between curriculum, pedagogy and assessment are identified as avenues via which to extend thinking and practices in physical education beyond current limits of that which is currently accepted, normalised and recognised as possible” and foregrounds “the dynamic between curriculum, pedagogy and assessment over and above any of them individually” (p. 5). In acknowledging this statement I point to the importance of the alignment between curriculum, pedagogy and assessment in establishing an environment for integrated practice. The current propensity to teach a section of content, assess it and move on to the next section of content in the syllabus, segregates learning and compromises time. It fails to make the most of the potential to interrelate theoretical contexts and principles in more rounded and educative teaching, learning and assessment, and subsequently the potential for deeper understandings. In the context of this current focus on the issue of time, I suggest that interrelated and integrated curriculum design, utilising appropriately crafted pedagogy and educative assessment has the potential to be time saving, rather than time consuming for teachers. This was a view expressed by Mike in School 3 who, as explained in Chapter 8, referred to the integration of theory and practice (be it in a theory or practical performance lesson) actually “saves some time”, the two being complementary and effectively “kills two birds with one stone”. Talking with this teacher it was also evident that there is a trade-off, with more time required in initial pre-planning and that this is a trade-off that may not always be palatable to teachers.

Identifying creative and original integrated theory and practice pedagogical practice

In addressing the third research question I specifically focus on the secondary field to engage with the data from the case studies to discuss the nature of ‘integrated theory and practice’ and whether any creative and original integrated theory and practice can be identified. In Chapter 2 I acknowledged that Arnold’s (1997) three-dimensional conceptualisation of *learning in, through and about movement* continues to offer a

suitable basis for engagement with the notion of integrated theory and practice. I noted that Arnold's emphasis on the interconnection between the three dimensions rather than them being viewed in isolation is an important one, and pointed to Arnold's conceptualisation as a frame for the linkage between knowledge (or theory) and practical performance (or practice) elements of senior secondary courses such as the PES in WA. As discussed in Chapter 2, this is a linkage that populates many senior school course in Australia (Victoria and Queensland) and internationally (Scotland and England) and is particularly relevant to the rhetoric of PES in WA. Indeed as data in Chapter 6 acknowledged early PES syllabus iterations in the ORF, used 'Arnold-like' terms, as a basis for the rationale of the course, for example:

The emphasis is on learning *through* movement and personalised learning experiences to achieve progress towards the course of study outcomes of *Physical Activity Skills; Self-management and Interpersonal Skills for Physical Activity; Knowledge and Understandings for Physical Activity and Values and Attitudes for Physical Activity*. (CCWA, 2005, p. 5)

Accordingly, I proposed to define the 'theory and practice' nexus as; an understanding 'about' theoretical knowledge and principles, "developed and utilise[d]" (Hay & Penney, 2009), 'in and through' practical activities, contexts and situations. I therefore identified theory and practice as *interrelated and integrated*.

This definition read in tandem with the recognition of the complex nature of terminology such as 'integrated', "interrelated", "interconnected" and "interdisciplinary" (see chapter 1), formed the basis for addressing the third research question which sought to identify 'integrated theory and practice' pedagogical practice in the field of senior school PES in WA. As a complex conceptualisation I acknowledged that pedagogic examples from the data might have specific strengths and/or emphasis. Consequently using the literature and definition referred to in Chapter 2 and above as a basis, I designed an 'integrated theory and practice' matrix (see Table 1 in Chapter 2), which provided me with a mechanism for identifying various examples of integrated theory and practice pedagogical arrangements.

I start by discussing ways in which "integration of theory and practice" (CCWA, 2009, p. 2), has been interpreted and enacted by teachers in schools. Importantly readers should recall that the PES syllabus, while claiming that the "integration of theory and practice is central to studies in this course" (p. 2) did not define this phrase or provide any specific guidance relating to its role in course design, assessment or teaching and learning practices. Accordingly the following discussion centres on teacher interpretations of what

‘integrated theory and practice’ encompasses, before turning specifically to address what integrated pedagogical practice has emerged in enactment of the PES.

What is integrated theory and practice?

The case study data highlighted that teachers in the secondary field of reproduction and in the context of PES in WA, broadly interpreted the ‘integration of theory and practice’ in Arnold-like terms with components being *similar* to the definition offered above and in Chapter 2. There were however significant variations in the interpretation and use of Arnold’s three-dimensional conceptualisation of *in, through and about*, which was often simplistic or incomplete. This perhaps supports Stolz and Thorburn’s (2015) and Pill and Stolz’s (2015) comments that PE teachers’ do not really understand Arnold’s conceptualisation, despite the assumption that it is generally accepted as a philosophical basis for the subject. Moreover, Brown (2012) points out that it is only components of Arnold’s conceptualisation “namely education ‘about and through’ movement, rather than necessarily the whole notion” (p. 2) that resonate with teachers. Teachers in this study typically acknowledged the fundamental importance of physical experiences or experiential learning, supporting the view that kinaesthetic awareness *in* and *through* practical attaches or transports meaning and knowledge (Thorburn, 2008). The general emphasis placed on the term ‘practice’ was on ‘doing’ or participation *in* physical activity, not simply illustrations or examples of a pictorial or visual form.

As Brown and Payne (2009) and Tinning (2008) have previously highlighted, the intrinsic and motivational value of physical activity and movement is variously mentioned as an important feature. There is a general view that cognitively it provides for deeper higher order understandings of knowledge and concepts by typically active learners, and pragmatically it engages students or as one teacher comments, “sometimes raises the dead” and provides an ideal vehicle to potential learning. However, the essence of the engagement *in* physical activity and movement in the data was typically shallow with the notion of ‘doing’ typically revolving around learning *about*, i.e. the propositional knowledge described in the PES course syllabus. This is somewhat contrary to Arnold’s notion of learning *in* which does not focus on the use of physical activity for the purposes of engagement with ‘other (external) learning’

Variously, the teachers in the case study schools acknowledged the integrated and interrelated nature of theory and practice. This tended to refer to a two-way process between content knowledge (‘theory’) and practical experiences and/or activity

(‘practice’) rather than as Arnold (1979) emphasised, the important interrelated and interconnectedness of the three dimensions, which are “conceptually discrete but functionally related” and hence “overlap and merge” (p. 177). Importantly it is also necessary to acknowledge that while these various definitions are offered and understood by the individual teachers themselves, this understanding did not always relate to pedagogic practice to support this in their schools. One teacher referred to a “split personality”, reflecting that, “at the back of your mind you know it’s (that theory into practice is ‘central’ to the course) always there, but in reality, especially in Year 12, you only have so much time. One side of you wants to do it, but you end up doing another” (Sam at School 2). As discussed previously the pragmatics of assessment, time and accountability often compromised the teaching and learning approaches employed within the case study schools.

The final section of this discussion focuses on the secondary field of production and whether any “creative and original” (Ball et al., 2012) integrated theory and practice arrangements have emerged during enactment.

Opportunistic, structured and investigative/guided integrated theory and practice arrangements

All teachers in the case study schools articulated pedagogic teaching and learning arrangements and plans for their students in PES. While there was evidence of ‘some’ or what might be called “modest” (Brown & Penney, 2013) examples of integrated theory and practice teaching and learning arrangements in the case study findings, the extent and nature of links developed varied considerably. Consequently, there was little or no sign of an established or consistent ‘integrated theory and practice pedagogy’ across schools in the secondary field of production. This in itself is arguably an important finding, given the statements made in the course rationale.

Using the definition of integrated theory and practice offered in Chapter 2 to interrogate my data, I identified three broad approaches to the ‘integration of theory and practice’ that was referred to by the case study teachers (noting that teachers were specifically asked to identify examples of ‘integrated theory and practice’ pedagogy in their practice). I have termed these three categories of pedagogic approach towards ‘integration of theory and practice’ ***Opportunistic, Structured and Investigative/Guided***. These terms necessarily reflect general features found in different planning arrangements made by

teachers. Importantly they are used as basic reference points for discussion in this thesis and are not offered as pedagogic modes.

In the following discussion I use these three categories to identify specific and contrasting examples of integrated theory and practice. Firstly, I clarify the meaning of each term *opportunistic, structured and investigative/guided*. Secondly, I provide an example(s) of each approach from the case studies. For illustrative purposes I have in some cases extended insight into the approach by way of an example of what it may look like in practice. Then, using the ‘integrated theory and practice’ definition and the matrix (Table 1 in Chapter 2) I identify their various features in relation to the integrated theory and practice conceptualisation, recognising that pedagogically within teacher’s interpretations there will be variations.

Opportunistic arrangements for integrated theory and practice

Opportunistic arrangements for integrated theory and practice, includes approaches where teachers in an impromptu basis and ad hoc way take the opportunity to use movement to illustrate a theoretical principle and/or concept when it arises, commonly in a practical performance lesson. This supports Brown and Penney’s (2013) contention that the “logical starting point” for thinking about pedagogy, in senior physical education “must be the (moving) body” (p. 19).

One case study teacher referred to “Flip flopping” (Tom at School 1), while another referred to “Stop/starting” (Maria at School 4). For the purpose of this discussion I will use the phrase “Flip flopping” to refer to both. “Flip flopping” refers to the use of open movement situations and ‘teachable moments’ to flip flop between interdisciplinary content and practical examples as they occur. More specifically, in the context of physical activity (note that this approach takes place during a designated theory/prac class which is practically based) the teacher recognises ‘teachable moments’ (or opportunities, happenings, occurrences) and uses these examples as illustrations of personal experience to relate and integrate interdisciplinary knowledge (such as exercise physiology, functional anatomy and motor learning) to practical examples.

The teachable moment, while necessarily spontaneous, is planned in such a way that the teacher can be assured that if certain conditions are put in place, the *moment* or experience will occur. As Mike at School 3 explained, “something happens, I stop it, recall or replay it, perhaps ask why I stopped it, or what happened, explain and off we go again. It can be a bit random, but I know that over a period of time sooner or later I’ll see examples”.

Accordingly the teacher did not pedagogically arrange for an event to occur, rather they put in place the conditions that might facilitate opportunities that they would be able to pick up on, and then employed a general plan to capitalise on occurrences as they occurred. For example, a game of 3-on-3 Basketball has the potential for students to perform and experience open and closed skills, understand and see examples of the open and closed skill continuum, and relate biomechanical principles to specific skill sets such as a lay-up. Similarly, the potential to relate the feeling of their heart beat, and the response to exercise performed there and then, to their anatomical understanding of how the heart functions. The approach is both planned and opportunistic, in that the game is innately generative of multiple opportunities that can be explored and used as contexts for learning. Importantly, analysis and diagnosis of the teachable moment is prompted by teacher questioning, which aims to elicit appropriate responses from students as a basis for developing relevant understanding of course content.

Stolz and Thorburn (2015) have highlighted Arnold's emphasis that, "meaning is derived from being consciously engaged through doing something that is personally meaningful to the agent in question" (p. 5). Necessarily, 'Flip flopping' between sub-disciplines (for example, biomechanics, exercise physiology, motor learning and human anatomy) allows students to relate previous or new theoretical understandings to the personal physical experience *in the moment*. Writing in the context of phenomenology, Thorburn (2008) refers to this as the "essence of the experience" (p. 265) and points to the meaning associated with the embodied action, "including kinesthetic awareness of one's movements and the importance of sensations as they are experienced by the body" (p. 265). The above example of *opportunistic* arrangements integrates the dual dimensions of theoretical principles and concepts to practical settings (Penney & Kirk, 1998). It is experiential and has the potential to elicit reflection and its associated benefits (Thorburn, 2007) by making linkages between knowledge and personal experiences.

Extending the phenomenological links here, Thorburn draws on the work of Kerry and Armour (2000) and his experiences within the HSPE in Scotland to point to the potential of narrative writing to add to this lived experience. This perhaps adds a missing link to this *opportunistic* approach, specifically the challenge to consolidate the linkage between knowledge and practical experiences to the extent that deep and rigorous understandings can be developed. Thorburn (2007) proposes that:

Through reflections about performance, students are expected to review the qualities inherent in performance and their future learning goals. In

this way, constructive teaching environments based on a personalised account of students' lived experience (supported by data) links to relevant underpinning content knowledge in ways that could feasibly develop the capacity for reflective illumination about performance. (p. 180)

Accordingly, written reflective tasks and/or homework to support, extend and consolidate knowledge and understanding, could be a necessary adjunct to this *opportunistic* approach, although this was not a feature of the tasks evidenced in the case study schools.

The intent of the *opportunistic* pedagogical arrangement is to make the most of situations as they occur. However, the likelihood of these occurrences is heightened by planning productive and generative activities.

The approach optimises the inherent value of practical experiences implicit *in* (Arnold, 1979) and *through* movement and provides a reference point for reflection on learning that is either distinctly new to students, or that may be familiar to them. Hence, the essence of the engagement *in* physical activity and 'doing' in this context typically revolves around learning *about*, i.e. the propositional knowledge described in the PES course syllabus. As referred to earlier this is somewhat contrary to Arnold's notion of learning *in* which does not focus on the use of physical activity for the purposes of engagement with 'other (external) learning', but nevertheless in the context of the integration of theory and practice, this is a useful linkage. It is a pedagogic arrangement that contextualises and 'opens up' understanding *about* the course content and needs to be employed in conjunction with other arrangements to consolidate and ensure deeper and higher conceptual understandings. Finally, it is also important to recognise that the opportunistic approach requires teachers to have explicit knowledge of the course content and the dynamics of the pedagogical arrangements for it to be effective.

***Structured* arrangements for integrated theory and practice**

The *Structured* approach relates to a teaching and learning framework or structure, which underpins understanding of a theoretical principle or concept through a practical experience or illustration or task. Typically, the teacher is directive and the learning arrangements are prescribed and closed in nature. The approach commonly includes an applied feature, requiring students to use and apply their understandings to affect performance. Examples from the case study data included the concepts of 'practical experience / applied theory / practical application' (or what I call *prac/theory/apply*), and 'through the examiners eyes'.

The examples that I draw upon in this section relate solely to lesson and/or multiple lesson-based examples, referring to *structured* pedagogic frames and/or theories and ideas. While, these were sometimes linked to assessments, such as investigations (the next category), they were not directly used for assessment purposes. It should also be noted that the examples I draw upon here are all from one of the case study schools (School 3).

The first example of the *structured* approach uses a framework that has three parts, these are: “practical experience/applied theory/practical application” or *prac/theory/apply*. Mike the teacher at School 3 explained that:

I start most, but not all lessons with a practical based example, like a demo in my skill based PE lessons. I demo what I am going to focus on. It might be a few balls spinning or a bit of You Tube. Whatever, it’s something practical that they see or do. I then give them some theory inputs, then we apply it to a situation or sport, so its practical, theory, apply, that’s the basic plan. (Mike)

Accordingly, a ‘*prac/theory/apply*’ paradigm is evident, in which the initial experience and theoretical explanation is developed through application and possible reapplication back to the practical contexts.

This framework is intentionally planned in such a way to use a constructivist approach to building understanding through interaction and/or reference to a practical experience. In using a physical experience or demonstration/illustration to instigate learning and understanding this approach, supports the work Thorburn (2007, 2008) who drew on the work of phenomenologists such as Husserl (1931), Merleau-Ponty (1962) and Heidegger (1962) to highlight the potential for “experiences to provide the basis for a rigorous methodology, which could lead to specific forms of experiences (thoughts, perceptions, feelings) linking to associated subject knowledge meanings to achieve learning goals” (Thorburn, 2008, p. 265).

An example of this *structured* frame might include; in teaching fluid forces, students experiencing swimming a few laps. The teacher asks the students to ‘feel/experience’ the water on their bodies. Where can you feel it? Your head? Your shoulders? Your hands? The teacher provides some theoretical inputs, such as ‘drag effect’, slipstream, and/or technical inputs related to ‘cutting through the water’ (e.g. hand position, shoulder rotation). This will include looking at student examples of good/poor technique or exemplars on YouTube. The student ‘might’ engage in some reading and/or written comprehension activities and/or further digital analysis. Finally, using, the experiences

and theoretical understandings students then design and/or identify an intervention (a drill or activity) to apply to a specific coaching situation, be it with a partner or in a group. Accordingly students: Do → Know / Understand → Develop → Use/Apply/Modify (see Table 7, below). The process may take one/two or multiple lessons; the critical issue is that the starting point is ‘an experience’, and the experience forms the basis for theoretical understandings, which is then extended through application.

Table 7

Prac/theory/apply ‘Structured’ Arrangements

Practical	Theory	Apply
Experience – do – see the principle / theoretical knowledge e.g. Projectile motion	Learn some more about it – know and understand the principle / theoretical knowledge	Apply understanding of the principle / theoretical knowledge to context(s)
<i>Q/A to explore issue</i>	<i>Conceptual understanding</i>	<i>Application to context(s)</i>

This *structured* arrangement is strong in constructivists features especially contextualisation and applied production of knowledge. Theoretical understandings and practical application are integrated and Arnold’s three dimensions of *in, through and about* are featured, although the strength of the *about* feature is dependent on the rigour explored through the quality of the diagnosis and teacher questioning, the application of theoretical understandings to the experience/context and the applied nature of the task to support this.

The second example of *structured* arrangements is ‘through the examiners’ eyes’. Casey and O’Donovan (2013) refer to a similar approach in their recent work based on the Cooperative Learning model. In the example from this study, Mike from School 3 explained that:

... part of my theory and practice teaching, in both the classroom and outdoors, is getting the kids to do that “through the examiners’ eyes”. That’s what I call it with them. Let’s experience and practically do the examiners role. I think it saves some time, opens eyes. We design or I give them the marking key or some points to address and they consider their own and each other’s work and performance. (Mike)

Interestingly, the main motivation for using this approach is to short-circuit the ‘teach to the test approach’. The teacher comments that “they do not just do tests and practice being

bad at tests” (Mike). As a consequence, this approach seeks to turn the traditional view of preparing students for external exams on its head, by focusing integrated theory and practice on students interrogating practical and written content through an examiners lens.

The framework for this arrangement takes the following form (note details of how this approach is arranged in the teachers’ words can be found in Chapter 7): Teaching and learning inputs/setting of task/marking criteria established/task completed (attempt 1)/student observation and marking/discussion and feedback/possibly attempt 2 (as homework if written). Accordingly, the teacher engages in some teaching and learning (for example, “chaining” – Motor learning and Coaching, 3A, PES Syllabus; CCWA, 2008, p. 29). This may be done in the classroom or preferably practically based. The teacher sets a short or extended task (depending on time allocated), which requires students to use their understanding of “chaining” to design coaching/training activities to improve performance in selected skills. The students and teacher design marking criteria or observation points for the chaining task. Working in small to midsize groups, students carry out the task. The chaining activities are observed and marked by the students. The students and teacher then discuss the answers and feedback is provided. If appropriate a second attempt is undertaken. Consequently, students reflect on their performance or interrogate their understanding through multiple lenses (designer, performer and marker). The students have opportunities to reflect on their understanding through the performance/task completion, observation/marking, feedback and a possible second attempt.

The ‘through the examiners eyes’ pedagogic arrangement is strong in constructivist features. Real world, simulated and ‘hands on’ experiences are central to this approach, and students are required to design and apply understandings. In the example provided above, the two-dimensional features of theory applied to a practical setting are integrated on dual levels, performer and examiner. In a practically applied context the interrelated and interconnected dimensions or *in, through and about* are strong.

Investigative/Guided arrangements for integrated theory and practice

Investigative/Guided integrated theory and practice, usually takes the form of an assessment based task or lab, in which experiential data are collected and analysed, theoretical understandings are applied (normally through some prompting questions) and then applied back to the performance or alternative practical scenario. The intent of the approach is to commonly confirm or assess understandings of knowledge. In contrast to

the *structured* approach here the student are cast as active agents (investigators) and the teacher is cast in the role of guide (a guided discovery agent).

An example of this arrangement from the case studies is the lab activity: *Exercising in the Heat*, from School 1 (see Appendix F). In this task students participated in data gathering by running laps of a 400m track simulating different heat levels by dressing in different types of clothing. Data relating to heart rate and body temperature, for example, were recorded. An exertion scale was used as a baseline to measure effort. Students were required to plot the data on a graph and then use this to reflect on a series of questions, which required them to explain the effects of heat on different data sets, consider the potential dangers, and suggest adjustments to training programmes. The *Exercising in the Heat* task is a typical example of *investigative/guided* arrangements. It has some constructivist features, including real world context, hands on experiences during data collection and the production of suggestions for adjustment to training programmes. The task requires students to integrate the two dimensional features of theory and practice. The task is strongly oriented to learning *about* movement, however the interrelationship between *in, through and about* movement is weaker.

A second investigative example is the Practical Investigation and Report: *Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others*, from School 3 (see Appendix L and Chapter 7). This *investigative/guided* task required students to design a game notational analysis system. They determined the important elements of the game and subsequently created the notational analysis system that would allow them to describe and evaluate performance. The students were required to collect data on themselves and others, then work in pairs to analyse and reflect on skill and strategically-related strengths and weaknesses of performance. Finally, they provided feedback to the performer, and then, prompted by some questions, they created training activities that were designed to improve performance of self and others. The *Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others* task, is strong in constructivist features. The contextualised design process, analysis (of themselves and others), reflection and the production of remedial activities to improve performance in this investigative task, supports Thorburn's (2007) ascertain that integration on this level allows students to "acquire (gather, recall, comprehend and sort information), apply (interpret and analyse information) and evaluate (hypothesise, predict and justify)" (p. 168) and subsequently provides a keen constructivist and educative edge. The task is integrated, and has potential for significant interrelated and interdisciplinary

links. Accordingly the potential for students learn *in, through and about* movement in this task is high.

Summary

In summary, the case study data highlighted some *modest*, “creative and original” (Ball et al., 2012, pp. 2–3) integrated theory and practice pedagogic arrangements, when analysed against the ‘integrated theory and practice’ matrix (see Table 1, Chapter 2). I use the term *modest* to refer to the amount and variety of examples seen, rather than to imply quality. I contend that the examples illustrated in this chapter have significant potential for course content to be understood. Three categories of pedagogic arrangements have been identified, including: *Opportunistic, Structured and Investigative/Guided*. All approaches are variously planned or arranged in such a way to transport meaning (understanding of knowledge) through lived experiences (movement).

A common feature of these arrangements is that while the teacher takes on differing roles in each of the approaches identified, they remain the key agent in the teaching and learning process. In the case of the *opportunistic* approach this is by arranging the conditions for opportunistic examples to be used for illustrative purposes. In contrast, *structured* approaches employ a teaching and learning framework or structure to underpin understanding of a theoretical principle or concept through a practical experience or illustration or task. Here, the teacher is directive and the learning arrangements are prescribed and closed in nature. Finally, during *investigative/guided* arrangement student are cast as active agents, with the teacher taking on the role of guide or a guided discovery agent. In all cases learning *in* and *through* movement and physical activity contexts is front and central to developing understanding *about* course content.

Possibilities and limitations of Arnold’s *in, through and about* conceptualisation

In addressing the third research question it is evident that, teachers in the context of PES in WA interpret the ‘integration of theory and practice’ in Arnold like terms, be it, as Brown and Penney (2013) have similarly highlighted in the context of the Victorian Certificate of Education Physical Education (VCEPE), that there conceptualisation and understanding of *in, through and about* is often simplistic or incomplete. Consequently, while these understandings and interpretations vary considerably, and in acknowledging the concerns of Stolz and Thorburn (2015) and Pill and Stolz (2015) about the lack of deep understanding, Arnold’s conceptualisation even in its most simplistic and pragmatic

form, provides possibilities for the development of pedagogic arrangements that integrate theory and practice, within the context of the existing PES course(s) to generate “new knowledge” (Kirk, 1989, p. 1).

Some thought provoking points are made by a number of teachers in the case study schools who acknowledged the intrinsic value of physical activity and movement experiences *in and through*. As Brown and Payne (2009) and Tinning (2008) have previously highlighted we should not underestimate the potential of Arnold conceptualisation. Not the least of these is keeping teachers honest in this regard and utilising the intrinsic qualities of movement. Hence in reducing the conceptualisation to its most simplistic form, with two of the three words, *in and through*, broadly referring to ‘doing’ and experiencing, it provides a baseline to advocate for balance against the proliferation of *about* in examinable PE teaching and learning arrangements.

In reviewing existing practice in the secondary field, I contend that there are examples of modest *opportunistic, structured and investigative/guided* pedagogic practice that variously reflect features of integrated theory and practice against the definition and accompanying matrix proposed in Chapter 2. These examples highlight the significance of the constructivist features of Arnold’s interrelated conceptualisation, in taking pedagogical arrangements beyond simply the situated individual experience and learning that comes *in, through and about*, to emphasising the importance of contextualising theory *about* PE *in and through* practice and vice versa, including the necessary application, reflection and production of learning to that context.

Data from this study supports the view previously expressed by MacPhail (2007), Thorburn (2007), Thorburn and Collins (2003), and Brown and Penney (2013) that while teaching and learning arrangements purporting to be based on learning *in, through and about* movement are variously evident in senior school courses, it is not an overriding pedagogic arrangement, nor is it consistently expressed. Instead, practice often reflects less systematic arrangements or a complete disregard for this overarching discourse in a variety of courses internationally, in favour of a more pragmatic discourse, around time and rote learning in preparation for the external examinations.

This discussion has recognised some pedagogical possibilities presented by Arnold’s conceptualisation in regards to the integration of theory and practice. In referring to these, I also acknowledge the concerns voiced by Thorburn’s (2007), Brown and Penney (2013) and Stolz and Thorburn (2015), regarding difficulties created by a lack of understanding

of Arnolds work, which may variously impact aspects of examinable course delivery. The most significant of these concerns are, as Stolz and Thorburn (2015) highlight, the propensity for the “*in and through* dimensions to be merged; for the *about* dimension to disproportionately dominate” (p. 9) senior school examinable courses; and for only “lip service” (p. 9) to be paid to the *in* dimension.

Interestingly, Stolz and Thorburn (2015) also observe that rather than an integrated curriculum, we are often “left with demarcated ‘silos’ that operate independently from each other in practice” (p. 9). They point to the work of Brown and Penney (2013) who acknowledge that these difficulties occur due to the lack of clarity of Arnold’s writings, which often results in work being taken forward in problematic ways. In relating this to the WA context I draw attention to the data in this study, which often reflects a course in which theory (including its various sub-disciplines) and practical are siloed. This is true of the syllabus and examinations materials produced in the ORF, the support materials and texts in the PRF, and much of the pedagogical practice in the secondary field. If my definition of integrated theory and practice is accepted, the pragmatic discourse that has pervaded the enactment of PES has to a large extent separated theory and practice, and by association, learning *in, through and about*. This is perhaps best personified by the separation of the written and practical exams, neither of which relate to one another, and which have, I contend, typically, although (as data in the chapter shows) not exclusively, led to the use of pedagogical arrangements driven by examination imperatives.

Chapter 10

Final Conclusion

This study posed three research questions and used Bernstein's conceptualisation of pedagogic discourse, and in particular the recontextualising fields, to investigate curriculum change and reform in the context of the initial years of "enactment" (Ball et al., 2012) of Physical Education Studies (PES) in Western Australia (WA). In particular, the study has provided a better understanding of the relationship between policy-making and course design intentions and the often contradictory, contrasting and unintended practices subsequently arising in schools amidst enactment (Jones & Penney, 2013). It has specifically, examined the 'integrated theory and practice' discourse associated with the PES course and used the work of Peter Arnold (1987) to explore and present evidence of some "creative and original" (Ball et al., 2012) integrated 'theory-prac' pedagogical practice in the field of senior school physical education.

In this final Chapter I start by addressing findings as related to each of the three research questions, before making some final remarks by way of some recommendations, including some signposts to future research directions, which focus on pedagogical practice in the area of senior school physical education. I finish with some personal reflections, a summary conclusion and a postscript.

Overarching discourse entrenched "in a web of state, national and other education policies and initiatives" (Connelly & Connelly, 2013)

What were the discourses that formed the policy principles from which the Physical Education Studies in WA was designed, and why was there a particular "central" focus on the "integration of theory and practice"?

In addressing the first research question this study has established that the new senior secondary PES course in WA emerged from the ORF on the back of significant educational reform that enabled a series of varied overarching discourse(s) pertinent to contemporary debate both in Australia and internationally to be advanced. Essentially these can be characterised as; lifelong learning; inclusivity and access, equity and opportunity for all; personalised learning; the alignment of Vocational, Educational and Training and school based post compulsory courses; and the extension of post school destinations through the development of a broader range of subject based courses. In WA, an agenda to extend and align the WA Curriculum Framework (CCWA, 1999) and

learning area outcomes from K - 10 into Senior Schooling was also prominent. These combined with discourses specific to the PES course development, formed the backdrop to, and platform for, course development in the ORF. The key PES specific discourses were, a privileging of the practical dimension of learning in PE; an associated focus on personalised learning; and rhetoric towards the 'integration of theory and practice'. The identification of these overarching discourse(s) within the ORF informed the second phase of the study, focusing on activities within the PRF and in the secondary field.

I found, as Connelly and Connelly (2013) have suggested, that developments such as PES in WA, were variously entrenched "in a web of state, national and other educational policies and initiatives, as well as being embedded in a plethora of educational organizations and voices with political and policy agendas" (p. 57), such that these documents were "at the centre of a complex, holistic, public, political and practical network of educational discourse" (Connelly & Connelly, p. 54) that was inherently tied to other discourse networks. The data from Phase 1 of my study established that the PES course in WA emerged on the back of a web of broad ranging overarching discourse(s). Evidence pointed towards a relatively compatible and consistent initial set of policy principles and discourse(s) forming the basis for initial course development work, through to the first published PES Syllabus in 2005. However, as With-Nielsen and Pfister (2011) highlight, "discourses provide the contexts and the storylines for interactions and the positioning of the participants by themselves and by others" (p. 648). My analyses and discussion of the data illustrated the ways in which dynamic discourse relations and the influence of key actors and agents with competing texts and priorities (specifically in the context of PES in WA) combined over time to change the status and expression of various discourse(s). This was particularly evident with regard to the balance and interaction between curriculum, assessment and pedagogy; and reaffirms commentaries by Penney and Brown (2013), Kirk et al. (2002), Thorburn (2008) and Thorburn and Collins (2003), emphasising that effectively addressing this dynamic nexus remains a notable challenge for senior secondary physical education. This is especially so in the case of the 'integration of theory and practice' in the PRF and Secondary fields, supporting Penney's (2013) comments that "the publication of a final version of a new curriculum document is far from the end of 'meaning making' - the process of 'implementation' is destined to be a complex and contested and will play out differently in different contexts" (p. 190), and that "amidst an emphasis of complexity there is some risk that we lose sight of conscious intent" (Penney, 2013, p. 190).

Local translations in the recontextualisation and secondary fields – a complex and contested process

What translations of the Physical Education Studies' central focus, to integrate theory and practice, have been made during enactment?

In addressing the second research question, I found that contextual and openly political changes relating to a number of the overarching discourse(s) inherent in the PES course, has meant that there have been significant changes in both the ways in which a discourse of integration of theoretical and practical knowledge in physical education, amongst others, is expressed in the official course text as well as in local translations of that text in the PRF and secondary fields. I found that the 'integration of theory and practice' was explicitly positioned as a 'central focus' of PES in WA early in the conceptualisation of the course in the ORF. Despite this, the discourse was only hinted at during the early syllabus iterations in 2005 and 2006, via reference to Peter Arnold's (1979) conceptualisation of learning *in through and about* movement or what we might call 'Arnold-like' terms. The phrase "the integration of theory and practice is central to studies in this course" appeared in the syllabus for the first time in 2009, and remains in the current Rationale for PES syllabus in WA (CCWA, 2009, p. 2). However, despite this reference in paragraph one of the course Rationale, there are few, if any, further references to this intention through the syllabus. In the PRF and Secondary fields, when this discourse sits alongside and is influenced by issues of time and assessment, it has been somewhat lost in translation, with only modest examples of pedagogical practice towards the integration of theory and practice evident.

Brown and Penney (2013) highlight that "curriculum developments worldwide reaffirm the complexity of policy processes in education and specifically the scope for varied and unintended readings of curriculum texts amidst the influence of broader political imperatives and dominant discourses" (p. 17). The data in this study affirm this and clearly reveal a complex, contested and fluid relationship between policy-making and (contested) course design intentions. Individual actors in both the ORF and PRF, and in some instances, spanning these fields by virtue of multiple roles, have contested and negotiated a series of discourses amidst changing structural and political conditions.

In referring to the complex nature of discourse Foucault (1981) highlights that, "discourses must be treated as discontinuous practices, which cross each other, are sometimes juxtaposed with one another, but can just as well exclude or be unaware of

each other” (p. 67). In relation to the PES in WA, I conclude that a dominant pragmatic discourse was prominent within the progressive shifting in discourse relations evident in the data amidst recontextualisation in the ORF, PRF and in the Secondary Field, and that this has consequently compromised and distorted relations between curriculum, assessment and pedagogy. Discourse(s) and texts that privileged syllabus content and assessment (and in particular the requirements of the external practical and written examinations for PES) and time, can be seen as progressively directing teachers’ pedagogical practice in senior school PE in WA away from a focus on integration and towards pragmatic pedagogy (see also Brown & Penney, 2016). Accordingly, teachers often viewed the course intent in these terms, rather than that expressed in the official Rationale, a section that was rarely read.

My data demonstrated that teachers do not have a good understanding of the PES syllabus, with some areas not read, and others misunderstood or neglected, typically in favour of content and assessment priorities. Stolz and Thorburn (2015) point to the recent work from SueSee (2012), SueSee and Edwards (2013) and Pill and Stolz (2015) to highlight the problems with implementing syllabus documents that are not well understood, (Stolz & Thorburn, 2015, p. 8). Indeed in the context of WA, the lack of a clear narrative and conceptual coherency in key text within the ORF continues to reinforce theoretical-practical segregation.

The pragmatic discourse seems overwhelming, almost suffocating, to the extent that the ‘cult’ of examination has also stilted debate regarding pedagogy. Consequently, the meaning and nature of the PE specific discourse(s), not least that concerning the integration of theory and practice, and the role of practical performance, has clearly changed. Internationally, Penney and Evans (1999), MacPhail and Halbert (2005), Thorburn et al. (2009), Thorburn and Horrell (2011), and Penney (2013) amongst others, have similarly highlighted the slippery nature of text and the influence competing texts and priorities including examinations, can have on pedagogical and curriculum practices.

The dynamic nature of text-context relations is also vividly evident in the case of PES in WA. Penney (2013) has pointed to the significance of the relationship that Ball et al. (2012) capture in emphasising that, “policy creates context, but context precedes policy” (p. 19). The data presented, and the various readings and responses arising from it, thus need to be acknowledged as *reflective of* specific contexts, and simultaneously *generative of* contexts for ongoing interpretation and engagement with the new PES. Therefore I suggest there is a need to recognise that the processes of recontextualisation in the ORF

and PRF and equally, interpretations and responses in the secondary field are contextual in the sense that they generate and limit possibilities for discourse amidst ongoing enactment of the PES.

What ‘integrated theory and practice’ pedagogical practice has emerged?

What “creative and original” (Ball et al., 2012) ‘integrated theory and practice’ pedagogical practice has emerged during enactment in the secondary field?

The third research question posed in this study considered what ‘integrated theory and practice’ pedagogies have emerged from the enactment process. In addressing this question Arnold’s dimensions of *learning in through and about movement* (1987), in conjunction with insights from Thorburn (2007, 2008), Brown and Payne (2009), Thorburn and Collins (2006) and Brown and Penney (2012), amongst others, provided a useful lens through which to interpret what ‘integrated theory and practice’ pedagogical arrangements had emerged during enactment.

I found that the term *theory and practice* is a familiar one, which is accepted and acknowledged almost as a *fate accompli* within this high stakes examination course. Understandings of the term are generally couched in Arnold-like terms, however as Brown (2012), Stolz and Thorburn (2015) and Pill and Stolz’s (2015) have suggested previously these are inconsistent and simplistic, and reflect only components of this conceptualisation. This said I argue that Arnold’s conceptualisation of learning *in through and about* movement provides an accepted reference point for pedagogical arrangements that seek to combine theory and practice. As such it is a useful conceptualisation around which to frame the notion of ‘integrated theory and practice’.

Integrated features are less prominent in the data and may reflect the fact that course content and exam questions are siloed and do not require rigorous integrated understandings. I would argue that the essence of this key overarching discourse has been openly distorted amidst recontextualisation and enactment of PES. Its current conceptualisation in the context of PES in WA is unclear, and its meaning is poorly articulated in the syllabus, both structurally and in the course narrative. Despite this somewhat morbid assessment I conclude that there was evidence of *some* or what might be called “modest” (Brown & Penney, 2013) examples of integrated theory and practice teaching and learning arrangements in the case study findings, although these did vary

considerably. There was little or no sign of an established coherent, and/or consistent, integrated theory and practice pedagogy across the schools in this study.

I have made a case that some integrated theory and practice emerged and I have clustered these under three categories: *Opportunistic, Structured and Investigative/Guided* integrated theory and practice arrangements. These examples of pedagogic arrangements variously demonstrated elements of integrated theory and practice as defined in this study. Essentially what emerged in these examples is practice that, while limited in regards amount, was true to the spirit of the PES; namely integrated theory and practice was central to the course. Accordingly, these examples aim to arrange conditions such that students develop greater understandings of knowledge in both the theoretical and practical fields. While in some instances the focus may be a preparation for external examinations, for example ‘through the examiners eyes’, the general pedagogic intent is, nevertheless, to improve understanding through an integrated, interrelated and interdisciplinary frame, which typically privileges experiential and practical based learning, emphasising that PES is multi-dimensional (theory and practical; biological and social sciences) not just one dimensional.

Recommendations

I conclude this thesis by making some recommendations. In framing these I return to the opening paragraphs of this thesis and the conceptual frames that informed this study. In Chapter 1, I stated that this study was as much a story of *how and why* and as it is *what*. Accordingly the following recommendations utilise Bernstein’s conceptualisation as a central organiser to focus on *how* conditions in the recontextualising fields can be arranged to create a curriculum, assessment and pedagogic environment where integrated theory and practice as a centre piece for PES could prosper, and *what* pedagogically can be done to develop practice in this area. These include some signposts to future research directions into pedagogical practice in the area of senior school physical education.

In making these recommendations I support Thorburn’s (2007) assertion that “at every level in the curriculum decision making chain from the rationale through to the assessment of student outcomes, adherence to a planned integration model is intended with the anticipated avoidance of a dichotomous theory–practical split” (p. 168). Accordingly, while specifically contextualised within PES in WA and four case study schools, these recommendations are typically pertinent to senior school courses nationally

and internationally. These recommendations are organised using Bernstein's recontextualising fields as a central organiser.

Official Recontextualising Field

The following recommendations focus on *how* conditions in the recontextualising fields can be arranged to create a curriculum, assessment and pedagogic environment where integrated theory and practice as a centre piece for PES could prosper. Towards this I recommend four actions for consideration.

Recommendation 1: A clear narrative is required in the PES course text

I acknowledge the following comments, "change the syllabus and you'll get the result you want" and "if it's not there, we are not going to cover it" (Sam at School 2) and recommend that a clear narrative is required in course text(s) reflecting key conceptual frames, including a coherent curriculum, assessment and pedagogic story. Towards this recommendation I propose consideration should be given to the following:

1 a) I suggest a clear pedagogic statement should be developed in the PES syllabus to support the course rhetoric, in particular, with regards to the integration of theory and practice.

1 b) The PES syllabus be reframed to provide clear and strategic signposts to the linkages between curriculum, assessment and pedagogy; alerting teachers to the "readerly" and "writerly" (Ball et al., 2012) elements.

Recommendation 2: Consider redressing the balance between assessment, curriculum and pedagogy.

The assessment discourse in PES in WA (and evidenced in other courses internationally) is overwhelming, to the extent that a "conspicuous" (Bryce & Humes, 1999, p. 657) external examination focus has "trapped" (Brewer, 2003, p. 592) the educative process. Consequently, consideration of suitable integrative pedagogic arrangements is compromised. Towards this recommendation I suggest the following:

2 a) Consider discontinuing the existing external practical performance examination, which is currently a disruptive influence on curriculum, assessment and pedagogy on PES in WA. This examination could be replaced by either a digitally based assessment (see Newhouse et al., 2011) or an externally set and/or moderated school based practical situation, which is *formally* assessed in schools or by networks of teachers in a peer

support environment. The assessment could emphasize the understanding of movement, skills, strategies and tactics as linked to theoretical knowledge, concepts and principles, as a performer in context.

2 b) Consider the practical performance assessment (outlined above), only being available in a limited range of sports, which have suitable and manifest links to the syllabus, and are intimately linked to the integration of theory and practice. The percentage of marks allocated to the practical performance itself could be reduced. This proposed reconceptualised should also provide an ongoing and sustainable annual professional development opportunity.

2 c) Consider the written external examination forming the centrepiece of a review of all other course assessment approaches, structures and advice in the course. I recommend the review include, firstly, the nature of the written examination and the extent to which this and the syllabus align, not only with regards content, but also to course rhetoric and the integrated and interrelated intent of the course. Secondly, consider the school based assessment advice and accountability measures around these. Not least of these is the role of innovative and supportive moderation protocols as a basis for a series of checks and balances to monitor and promote educative assessment practices within the context of a high stakes course.

Recommendation 3: Consider agents in the ORF providing more specific pedagogic direction and manage the potential for assessment to entrap course intent

Pragmatism, and in particular the potential for assessment to entrap course intent (as illustrated in this study), should be acknowledged and managed in the ORF (with regards to WA, the School Curriculum and Standards Authority, SCSA - formerly the Curriculum Council of WA). The nature of the beast is such that teachers in the secondary field and surrounded by a pragmatic discourse, such as the one described here, prioritise accountability and assessment above all else.

Accordingly, I recommend that SCSA and like agents in other jurisdictions (as the statutory bodies responsible for setting standards, developing curriculum and assessment, managing examinations processes and accrediting courses) consider providing more specific contextual pedagogic direction. Specifically in WA, I acknowledge that SCSA typically shies away from providing specific pedagogic advice. Instead, they run the ‘independent statutory authority’ argument and prefer to leave the contextual nature of teaching and learning in the course to teachers in schools, taking into consideration ‘my

students and my context'. While I accept the fundamental importance of this argument, SCSA should consider providing more specific pedagogic direction. This could include; firstly, specific advice regarding curriculum design and pedagogical practice, which is reflective of the course intent and coherency between curriculum, assessment and pedagogy. Secondly, provision of a clear course narrative, supported by strategic signposting of the discursive and pedagogic intent and intimate linkages between curriculum, assessment and pedagogy. Thirdly, further and carefully crafted alignment of the K – 10 curriculum (especially years 9 and 10) to ensure a smooth transition from the compulsory years to senior schooling.

Pedagogic Recontextualising Field – signposts for future research

The following recommendations signpost future research directions into pedagogical practice in the area of senior school physical education. I not only identify areas of research for my own personal pursuit, but advocate more broadly for more research nationally and internationally which brings to the fore what Penney (2012) highlights as the “critical inter-relatedness of curriculum, pedagogy and assessment” (p. 2), and critical “dynamic” and “connectivity” (p. 5) between the three. I foreground the need to build teacher capacity to engage with pedagogic discourse, as a counter balance to the overwhelming presence of curriculum and assessment, hence a focus around Arnold’s conceptualisation of *in, through and about* as an appropriate frame for this.

Recommendation 4: Arnold’s conceptualisation of learning in, through and about movement should act as the basis for further research into pedagogical practice in the area of senior school physical education.

I add my voice to the call of others, notably Thorburn (2007) and Brown and Penney (2012, 2016) and recommend further exploration more broadly within the HPE profession of the application of the work of Arnold and others to thinking about curriculum, pedagogy and assessment in senior secondary physical education. As an accepted reference point Arnold’s conceptualisation should act as a catalyst for further conversations and research into *creative and original* pedagogical practice in this area.

Recommendation 5: The “linguaging” of the term pedagogy should be supported as the basis for better improved course narrative

I support Tinning’s (2008) call for a “linguaging” of the term pedagogy and reengagement with pedagogical arrangements as a basis for quality educative practice,

and in the context of curriculum, assessment and pedagogy, especially in the accountable environment of high stakes. In particular bringing to the fore the issue of assessment and examination as part of the pedagogy debate, emphasising the dual role they both play in the educative process, rather than as a means to an end.

Recommendation 6: Reengagement with accepted and established pedagogies as a basis for senior school PES integrated theory and practice arrangements

The reengagement with accepted and established lower school pedagogies as a basis or starting point for *creative and original* thinking regards senior school PES teaching and learning arrangements, as evidenced in “practical experience/applied theory/practical application” or *prac/theory/apply* in School 3 (see Chapters 7 and 8), which the teacher claimed borrowed elements of the Tactical Games Approach. Accordingly, I join Penney and Kirk (1998), Putman (1993), Thorburn (2007), and Casey and O’Donovan (2013), amongst others, in highlighting the potential of existing pedagogies to form the basis of pedagogies for examinable courses. These and the notion of *opportunistic, structured* and *investigative* pedagogic arrangements (see Chapter 9), which I believe have some potential, will form the basis for my own research directions in this area. In particular the development of further examples of these frames, which may also have some ‘trickle down’ application to lower senior school settings as well, especially those periods leading into senior schooling such as years 9 and 10.

Recommendation 7: Rigorous and sustainable professional learning should be provided

Agents such as ACHPER and tertiary institutions working in the PRF (and occasionally the ORF by way of various roles they play) *must* engage in professional learning as a basis for advocacy and an ongoing series of checks and balances to monitor and promote educative curriculum, assessment and pedagogic practices within the context of a high stakes course. I suggest that this should be annual and/or cyclical, providing support and dovetailing with the potential moderation of practical performance (outlined in Recommendation 2a), to establish a sustainable and ongoing source of professional learning for teachers, and in turn data for tertiary institutions and agents in the ORF.

Personal reflections – a mini case study

Perhaps at some sub-conscious level, my initial motives for undertaking this research were that the design and enactment of PES in WA, and especially the focus on theory and practice, resonated with me on a personal level. In concluding this study I take a few lines

to be a little self-indulgent. This narrative falls outside the data, but you cannot take the researcher out of the research.

I have alluded to the personal narrative running through this thesis, by way of the various roles I played in PES in WA, through positions within the ORF (Reference group, Curriculum Officer, Practical Examiner) and PRF (Tertiary educator, professional association representative, PL provider). In addition, during my early career and fresh out of teachers' training college I taught A' level PES in the UK during its introduction in the late 1980's. Two different contexts, two different countries and two different courses introduced nearly three decades apart.

Extending the personal narrative, I can see it all unfold. I am ashamed to admit, that even though I was an actor in the ORF and PRF in WA; taught A' level in the UK; sat on the PES Reference Group; was a Curriculum Officer for 18 months during design; brainstormed how this course might be taught with colleagues; was on the practical exam committee; sat on the Curriculum Advisory Committee for five years or more; and yet until I did this study I never really looked at the PES syllabus and course materials and tried to piece them all together. They were in hindsight discrete rather than inherently and conceptually linked.

The narrative in the syllabus was hard to access. Like a poor novel, the early pages (the Rationale) did not engage me and straight away I went looking for some detail about the characters in the story and skipped a few pages (to the content). Further down I found some details that made sense (familiar terms: biomechanics, anatomy, etc.), but not before I went to the last few pages to see just what had happened at the end (Assessment Types). Or using the analogy of an instruction manual, I had a pretty good idea of how to put the piece of furniture together, so I skipped the early sections and went straight to the diagrams. Surprise surprise! I have a few bits left, and it did not look quite like it did in the shop.

It was not the writing or content, it was more the structure of the course materials and design that separated components, despite various reviews and changes to the original system. While it was conceived centrally as being layered and structured, building understanding of course content through the staged system, in reality it promoted separation. Accordingly, teachers acting pragmatically and concerned with delivery of content rather than conceptual integrative practice, went straight to the 'must does'. For example, the case study teacher who commented; "I have never read the rationale". This

was an experienced teacher: passionate and heartfelt; busy; conscientious; even he had not read the rationale. Moreover the course support materials (for example, the practical performance CD's) tasks similarly dealt with *what* rather than *how*.

So what of pedagogy? As a young 25 year-old teacher in the South West of England teaching Advanced level PES for the first time I was focused on the 'readerly' stuff. What is it that I need to teach the students? I worked tirelessly most evenings up-skilling myself on content and trying to stay one or two lessons ahead of the students. The commercially produced course text and other key resources were my crutch. I prepared resources and taught my lessons - it was all very pragmatic.

Did I think about pedagogy? No. I used the method used at teachers' training college. After all that was the approach to deal with high-powered theoretical content, similar to that in the Advanced level course. In reality I was perpetuating a curriculum-as-content model current at the time. Other dimensions of curriculum and pedagogy were foreign to me, and I was in hindsight operating on a purely functional level to get the job done and deliver the content

Was there anything that pointed me in a specific pedagogic direction in the Advanced Level syllabus? Absolutely not. At least nothing that a teacher of my experience understood. It might have been there, but it was not clear or overt to me, and not something that I recognised at the time or could process.

Did I look at the exam format and past questions? Absolutely. That guided my understanding of what I needed to teach.

Did I prepare my students to link theory to practice? Partly, but only because the practical assessment required it and I thought my students would find it more interesting.

Did I know about Arnold's conceptualisation and the relationship between theoretical understanding and experiential learning? Absolutely. I was at teacher training college in the mid/late 1980s; Arnold was the king. *In, through and about* was our bread and butter. But despite the contemporary nature of these writings at the time, we never began arranging learning settings with the question: 'how will these groupings/tasks/methods clearly integrate theory and practice in such a way that students achieve deeper insights into course content?' It was a handy overarching reference point, but we never really thought how it linked to pedagogy. Similarly theory and practice, or theory into practice, were often used terms in senior school courses in particular. But again how it was

articulated in pedagogical practice was not attended to. Nearly 30 years on and I think it is fair to say that this may still be the case.

The data from my study confirm that much of this story is all too common. I can personalise and rationalise the pragmatic discourse inherent in this story and more importantly the data in this thesis. Accordingly the recommendations highlight the need for coherency in courses such as the conceptual and philosophical basis of course design, syllabus construction, the role of assessment, and the possibility of pedagogical signposts within course texts.

Limitations of the study

In Chapter 1, and finally in this concluding chapter, I highlighted that I found only *modest* evidence of ‘integrated theory and practice’ pedagogical practice in schools. As previously acknowledged (in Chapter 4) the limitations of the sample size and type, including varied features of the case study schools and the teachers selected, provided little variety of pedagogic practice.

While I believed four case studies would produce plenty of examples of varied pedagogic practice this was not the case with two schools providing most of the examples used for discussion in Chapter 9. As such I believe the overriding limitation of the study was the size and type of the case study sample and the lack of observation in the ‘classroom’ setting during the case studies. Observation, in particular would have allowed for some of the nuisances of the teaching and learning to be viewed, and for these to provide the basis for a level of conversation in the semi structured interviews.

However, while a limitation of this study, it does provide an opportunity for another. As mentioned in Recommendation 6 my future research plans include the development of *opportunistic*, *structured* and *investigative* pedagogic arrangements (see Chapter 9), including action research in schools. While different to the essence of the ‘coalface’ data I have suggested is missing from this study, it does provide an opportunity to employ these frames in school settings, and for their potential to be tested.

A brief conclusion

From this study, I conclude that in WA we have seen clear tensions emerge between the reform intent; the PES syllabus; guidance and advice issued by various stakeholders; and the format and content of the ATAR exam. The data presented reflect that, there was a

lack of clarity for teachers in relation to what the pedagogical intent of the new PES was; and further, there were several factors that inhibited the development of integrated theory and practice as a central focus of PES in WA, as articulated in the course rationale. The purported central discourse for the course was seemingly *lost in translation*, with only *modest* pedagogic practice in support of integration evident in the case study schools used in this study.

Postscript

It is appropriate to finish this thesis with an update on the PES course, and the broader senior school environment in WA as it girds itself for another round of adjustments and adaptations to the WACE system from 2015/16 (Year 11 in 2015, Year 12 in 2016).

In terms of all WACE senior schooling courses, the staged unit system initially conceived to provide flexible and seamless pathways between lower school and tertiary and vocational pathways and to promote inclusivity and personalisation is to be replaced by a two tier system of ATAR course and General (or non ATAR) courses from 2015/16. Stage 2 and Stage 3 courses have in most cases been condensed into the ATAR course, while Stage 1 (A, B, C and D) typically makes up the General course. The ability to take a Stage 2 examination at the end of Year 12 no longer exists. Students wishing to pursue direct tertiary entrance should select ATAR courses or at least a minimum of four to ensure an appropriate score.

With regards to PES specifically, there has been a ‘cleansing’ of the official text, including a small but highly significant number of changes. Firstly, and significantly given the findings of this study, the school based ‘written’ assessment boundaries have been altered to increase marks allocated to Response/Examination style assessments to 80% overall (Examination to 55% and Response to 25%) and decrease Investigations to 20%. Secondly, there has been some re-sequencing and editing of course content in various units. Thirdly, the number of practical sports assessed through the external practical performance examination has been reduced from 14 to 10, although students can still present for the external practical performance examination in sports not taught at school.

Notably, the statement that “the integration of theory and practice is central to studies in this course” (Schools Curriculum and Standards Authority, 2014, p. 1) remains at the end of first paragraph of the Rationale. Similarly, as previous, the second paragraph states:

The Physical Education Studies ATAR course focuses on the complex interrelationships between motor learning and psychological, biomechanical and physiological factors that influence individual and team performance. Students engage as performers, leaders, coaches, analysts and planners of physical activity. Physical activity serves both as a source of content and data and as a medium for learning. Learning in the Physical Education Studies ATAR course cannot be separated from active participation in physical activities, and involves students in closely integrated written, oral and physical learning experiences, based upon the study of selected physical activities. (Schools Curriculum and Standards Authority, 2014, p. 1)

A word search of the PES syllabus (2014) to be taught from 2016 thereafter reveals that the terms “integration of theory and practice”, “Integrated”, “interrelationships”, “Interrelated” or “interdisciplinary” do not appear again after the Rationale.

With this recent review of the WACE system, carried out and implemented in 2015/2016, there is no system wide structural review planned for the near future. However, all WACE course are constantly under review through the Course Advisory Committees (CAC’s). Time will tell whether any of the recommendations foregrounded in this study will be taken up. Certainly issues of PES course dynamics are within the remit of the CAC and while the recommendation to discontinue the practical performance exam will (I predict) not be popular with a large percentage of the PE community, it may be that fiscal and economic ‘pragmatics’ are more powerful and palatable to those in charge of the purse strings, who may feel that an online or school based practical performance examination is more sustainable. As such a best possible outcome, as outlined in Recommendation 2a, is that ‘pragmatics’ actually acts as a catalyst for positive pedagogic development, driven by creative and original arrangements supported by students integrated understandings of movement, skills, strategies and tactics as linked to theoretical knowledge, concepts and principles, as a performer in context.

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Appendices

Appendix A - Semi structure Interview questions

Appendix B - Principal consent letter

Appendix C - Teacher consent letter

Appendix D - Semi structured case study teacher interview questions

Appendix E - Case study school 1 Unit Outline

Appendix F - Lab Activity: Exercise in the heat

Appendix G - Remember the Titans

Appendix H - Case study school 2 Unit Outline

Appendix I - Biomechanics Movement Analysis

Appendix J - Preparing for competition

Appendix K - Case study school 3 Unit Outline

Appendix L - Practical Investigation and Report: Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others

Appendix M - Investigation and Report: Exercise Physiology - "High Performance Manager"

Appendix N - An extract from Case study school 4's Unit Outline

Appendix O - Movement Analysis

Appendix P - Nutrition for a Marathon Runner

Appendix A - Semi structure interview questions

PROCESS:

What was the Physical Education Studies in Western Australia course design and development process – and what was your role in it?

DISCOURSE (policy principles):

What do you consider were the principles and /or structural features from which the course was designed and established?

Were there key policy drivers of the PE Studies course?

Who were the key course designers?

What were the priorities for your agency/organisation in this process?

Did you receive any official briefing sessions and/or documents, pre reading, reference materials prior to, or during the design process?

Were there other issues that you believe played a role in the design?

Was the Reference/advisory group influenced by ‘other’ like PES course? - If so How? What? Where?

How were the practical sports in the course/ teaching/ examination derived/ selected?

INTERGRATED THEORY and PRACTICE:

The Rationale for Physical Education Studies course in WA aspires to contribute;

...to the development of the whole person. It promotes the physical, social and emotional growth of students. Throughout the course emphasis is placed on understanding and improving performance in physical activities. The integration of theory and practice is central to studies in this course... (Physical Education Course Syllabus; CCWA, 2009, p. 2)

Why do you believe the Physical Education Studies has a “central focus to integrate Theory and Practice”?

Was there a common working definition for “Theory and Practice” and how was “integration” defined?

What is your understanding of the term “Theory and Practice” – and “integration”?

IMPLEMENTATION

What were your first thoughts about the course?

Were there any specific course foci that formed your initial interpretations/ thoughts during initial implementation?

Hargreaves (1986) refers to the influence of multiple “intermediary sites” of influence at play in policy making and implementation and recognises that these sites have significant influence on the interpretations of policy, both locally and more broadly –

What/who (if any) would you regard as specific intermediary sites in the implementation of the PES course?

Did any institution or individual act as a key agent informing your own and/or others’ practice, during initial implementation?

What were the starting points for your curriculum design?

The Rationale for Physical Education Studies course in WA aspires to contribute;

...to the development of the whole person. It promotes the physical, social and emotional growth of students. Throughout the course emphasis is placed on understanding and improving performance in physical activities. The integration of theory and practice is central to studies in this course... (Physical Education Course Syllabus; CCWA, 2009, p. 2)

Do you believe there was a “central focus to integrate Theory and Practice” during the initial implementation phase?

If so who were significant individual/ or organisations in shaping “Theory and Practice”?

What is your understanding of the term “Theory and Practice”?

What examples of Theory/Prac / ‘integrated’ pedagogy can you identify?

Appendix B - Principal consent letter



JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup
Western Australia 6027
☎ 134 328

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

Principal Consent Letter

Dear

My name is Andrew Jones and I am writing to invite your school to be case study (involving an interview and document analysis) as part of a PhD study. I am a Senior Lecturer in the School of Education at Edith Cowan University, currently collecting data for a PhD study that looks at *the implementation of the Senior School Physical Education Studies Course in Western Australia - From Policy to Practice*. In particular, the study will seek a better understanding of the relationship between policy making and course design intentions and the often contradictory, contrasting and unintended practices subsequently arising in schools amidst implementation, with the ultimate aim of identifying legitimate and original practice in the field of senior school physical education, and specifically “theory – prac” practices. This final aspect is the part that you are invited to be involved in.

I would like to invite *Name*..... at your School to take part in the project, because they have been recommended as a teacher in the course who would be receptive to the aim of the project and has a track record of best practice. Accordingly I am asking for your consent to approach *Name*..... to be part of this research.

What does participation in the research project involve?

They will be invited to participate in an interview and asked to provide planning documents as part of a case study. These processes will take place at a time convenient to them and the school and will not require absence from lessons or interruption. Participation in the research is purely voluntary. No observations of teaching during lessons will be undertaken. No students will be observed or interviewed.

What will happen to the information collected, and is privacy and confidentiality assured?

Information that identifies anyone will be removed from the data collected. The data is then stored securely in either locked cabinets or password protected computers and can only be accessed by myself or my supervisors (Professor Dawn Penney, Associate Professor Paul Newhouse and Dr Ken Alexander) at Edith Cowan University. . The data is maintained in a way that enables us to re-identify an individual's data. This will be done by using identification codes known only to myself and supervisors, which is used to link each individual's consent form to all data that relate to that individual. The identity of participants and the school will not be disclosed at any time. Confidentiality of information disclosed by participants is assured at all times. The data, including audio recordings, will be used only for this project, and will not be used in any extended or future research without first obtaining explicit written consent from participants. The school's identity will not be included in any formal writing including the final thesis, any publications in journals or the proceedings of a conference.

What are the education benefits of this research for schools and teachers?

The findings of this study will Inform future Health and Physical Education Learning Area developments and change processes both nationally and in WA. This study focuses on the senior secondary curriculum and can be seen as pertinent to the development and implementation of Australian Curriculum developments in this area.

The study will seek to identify legitimate and original practice in the field of senior physical education specifically “theory – prac” pedagogy, towards informing future engagement with curriculum in this context.

It is hoped that the findings of the study will be published in a journal or the proceedings of a conference.

A copy of the findings from your school case study will be provided to you and the school.

Is this research approved?

The research has been approved by the Human Research Ethics Committee of Edith Cowan University.

Who do I contact if I wish to discuss the project further?

If you would like to discuss this project or any aspect of this study with me contact me (Andrew Jones) on 6304 5285 or at andrew.jones@ecu.edu.au.

How do I indicate my willingness for the school to be involved?

If you have had all questions about the project answered to your satisfaction, and are willing for the school to participate, please complete the **Consent Form** on the following page. This information letter is for you to keep.

If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact:

Research Ethics Officer
Edith Cowan University
270 Joondalup Drive
JOONDALUP WA 6027
Phone: (08) 6304 2170
Email: research.ethics@ecu.edu.au

Yours faithfully,
Andrew Jones

Consent Form (Principal)

- I have read this document and understand the aims, procedures, and risks of this project, as described within it.
- For any questions I may have had, I have taken up the invitation to ask those questions, and I am satisfied with the answers I received.
- I am willing for my school to become involved in the research project, as described.
- I understand that participation in the project is entirely voluntarily.
- I understand that I am free to withdraw my schools at any time. .
- I understand that any audio recordings are for research verification purposes only and will not be used for any other purpose without the explicit written consent obtained from the participant.
- I understand that this research may be published in a journal or the proceedings of a conference, provided that the participants or the school are not identified in any way.
- I understand that the school will be provided with a copy of the findings from this research upon its completion.

Name of Principal Teacher
(printed):

Signature:

Date: / /

Name of School:

Appendix C - Teacher consent letter



JOONDALUP CAMPUS

270 Joondalup Drive, Joondalup

Western Australia 6027

☎ 134 328

Teacher Consent Letter

www.ecu.edu.au

ABN 54 361 485 361 CRICOS IPC 00279B

Dear

My name is Andrew Jones and I am writing to invite you to be a case study (involving an interview and document analysis) as part of a PhD study. I am a Senior Lecturer in the School of Education at Edith Cowan University, currently collecting data for a PhD study that looks at *the implementation of the Senior School Physical Education Studies Course in Western Australia - From Policy to Practice*. In particular, the study will seek a better understanding of the relationship between policy making and course design intentions and the often contradictory, contrasting and unintended practices subsequently arising in schools amidst implementation, with the ultimate aim of identifying legitimate and original practice in the field of senior school physical education, and specifically “theory – prac” practices. This final aspect is the part that you are invited to be involved in.

I would like to invite you to take part in the project, because you have been recommended as a teacher in the course who would be receptive to the aim of the project and has a track record of best practice.

Please note that if you indicate an interest in being part of this research your Principal will be asked to provide his formal consent.

What does participation in the research project involve?

You will be invited to participate in an interview and asked to provide planning documents as part of a case study. These processes will take place at a time convenient to you and will not require absence from lessons or interruption to school. Participation in the research is purely voluntary.

No observations of teaching during lessons will be undertaken. No students will be observed or interviewed.

What will happen to the information collected, and is privacy and confidentiality assured?

Information that identifies anyone will be removed from the data collected. The data is then stored securely in either locked cabinets or password protected computers and can only be accessed by myself or my supervisors (Professor Dawn Penney, Associate Professor Paul Newhouse and Dr Ken Alexander) at Edith Cowan University. The data is maintained in a way that enables us to re-identify an individual’s data. This will be done by using identification codes known only to myself and supervisors, which is used to link each individual’s consent form to all data that relate to that individual.

The identity of participants and the school will not be disclosed at any time.

Confidentiality of information disclosed by participants is assured at all times.

The data, including audio recordings, will be used only for this project, and will not be used in any extended or future research without first obtaining explicit written consent from participants. The school and your identity will not be included in any formal writing including the final thesis, any publications in journals or the proceedings of a conference.

What are the education benefits of this research for schools and teachers?

The findings of this study will Inform future Health and Physical Education Learning Area developments and change processes both nationally and in WA. This study focuses on the senior secondary curriculum and can be seen as pertinent to the development and implementation of Australian Curriculum developments in this area.

The study will seek to identify legitimate and original practice in the field of senior physical education specifically “theory – prac” pedagogy, towards informing future engagement with curriculum in this context.

It is hoped that the findings of the study will be published in a journal or the proceedings of a conference.

A copy of the findings from your school case study will be provided to you and the school. .

Is this research approved?

The research has been approved by the Human Research Ethics Committee of Edith Cowan University.

Who do I contact if I wish to discuss the project further?

If you would like to discuss this project or any aspect of this study with me contact me (Andrew Jones) on 6304 5285 or at andrew.jones@ecu.edu.au.

How do I indicate my willingness for the school to be involved?

If you have had all questions about the project answered to your satisfaction, and are willing for the school to participate, please complete the **Consent Form** on the following page.

This information letter is for you to keep.

If you have any concerns or complaints about the research project and wish to talk to an independent person, you may contact:

Research Ethics Officer
Edith Cowan University
270 Joondalup Drive
JOONDALUP WA 6027
Phone: (08) 6304 2170
Email: research.ethics@ecu.edu.au

Yours faithfully,
Andrew Jones

Consent Form (Teacher)

- I have read this document and understand the aims, procedures, and risks of this project, as described within it.
- For any questions I may have had, I have taken up the invitation to ask those questions, and I am satisfied with the answers I received.
- I am willing to become involved in the research project, as described.
- I understand that participation in the project is entirely voluntarily.
- I understand that I am free to withdraw my participation at any time. .
- I understand that any audio recordings are for research verification purposes only and will not used for any other purpose without the explicit written consent obtained from the participant.
- I understand that this research may be published in a journal or the proceedings of a conference, provided that the participants or the school are not identified in any way.
- I understand that the school will be provided with a copy of the findings from this research upon its completion.

Name of Teacher (printed):

Signature:

Date: / /

Name of School:

Appendix D - Case-study teacher interview questions

What's your philosophical approach to PES?

What's your understanding of the phrase "the integration of theory and practice"?

Do you believe the syllabus promotes "the integration of theory and practice"?

Planning: Does integrated theory and practice play a large part in your unit planning?

Pedagogy: What examples of integrated theory and practice can you identify in your pedagogical practice?

'The Exams': Do you believe the PES ATAR exam requires student to integrated theory and practice?

What role does practical play in the teaching of syllabus content?

What PES course texts do you use and why?

Appendix E - Course outline for School 1

Weeks	Content
1	<p>Developing physical skills, strategies and tactics</p> <ul style="list-style-type: none"> refine and adapt movement skills in modified and competitive situations focusing on consistency, precision, fluency and control adapt and implement strategic responses varying in complexity to situational demands in modified competitive practical situations e.g. changing environmental factors, strengths and weaknesses of opposition, tactics of opposition, phases/stages of play
2	<p>Functional anatomy</p> <ul style="list-style-type: none"> explain the structure of skeletal muscle i.e. epimysium, fascicle, perimysium, muscle fibre, myofibril explain how skeletal muscles contract in relation to sliding filament theory i.e. the role of myosin, actin and the sarcomere understand the relationship between the velocity and duration of muscle contraction to the amount of force exerted by the contraction i.e. <ul style="list-style-type: none"> force–velocity force–length understand the function of the nerves, spinal chord, motor unit (dendrite, axon, neurone)
3	<p>Functional anatomy</p> <ul style="list-style-type: none"> describe the relationship between muscle contraction and nerve function identify fast and slow twitch fibres and their relationship to physical performance types (sprint, endurance) i.e. characteristics of fibres <ul style="list-style-type: none"> Type I Type II Type IIb
4	<p>Biomechanics</p> <ul style="list-style-type: none"> define and relate momentum to a selected sport i.e. <ul style="list-style-type: none"> conservation of momentum (Newton's 2nd law) impulse–momentum relationship coefficient of restitution define and relate the following to a selected sport i.e. <ul style="list-style-type: none"> moment of inertia angular momentum levers three classes of levers
5	<p>Biomechanics</p> <ul style="list-style-type: none"> identify the relationship between torque and the use of levers in sport: torque = force x perpendicular distance of lever arm apply biomechanical principles to analyse physical skills i.e. <ul style="list-style-type: none"> coordination continuum segmental interaction
6	<p>Biomechanics</p> <ul style="list-style-type: none"> apply biomechanical principles to analyse physical skills i.e. <ul style="list-style-type: none"> balance force–motion force–time inertia optimal projection range of motion spin

Weeks	Content
7	Biomechanics <ul style="list-style-type: none"> • define and apply fluid mechanics in physical activity i.e. <ul style="list-style-type: none"> ▪ spin—the Magnus effect, top spin, back spin, side spin, no spin ▪ Bernoulli's principle
8	Biomechanics <ul style="list-style-type: none"> • define and apply fluid mechanics in physical activity i.e. <ul style="list-style-type: none"> ▪ sporting application of drag reduction—surface drag e.g. swim suit skins, cycling helmets
9	Developing physical skills, strategies and tactics <ul style="list-style-type: none"> • in a selected sport, critically analyse movement skills of self and others using movement analysis techniques and biomechanical principles Exercise physiology <ul style="list-style-type: none"> • describe the relationship between energy demands and nutritional requirements during physical activity i.e. <ul style="list-style-type: none"> ▪ nutritional considerations—balanced diet, glycemic index, fats, proteins, carbohydrates, fluid replacement
10	Exercise physiology <ul style="list-style-type: none"> • describe the relationship between energy demands and nutritional requirements during physical activity i.e. <ul style="list-style-type: none"> ▪ phases of activity—pre-competition, during exercise, recovery
11–12	Exercise physiology <ul style="list-style-type: none"> • explain the physiological changes brought on by the use of performance enhancers i.e. dietary supplements, anabolic steroids
13–14	Exercise physiology <ul style="list-style-type: none"> • evaluate the implications of preparing and performing in varying environmental conditions i.e. heat/humidity, altitude, cold
15	Exercise physiology <ul style="list-style-type: none"> • critically evaluate training programs designed to improve performance in relation to <ul style="list-style-type: none"> ▪ periodisation i.e. micro cycle, macro cycle, pre-season, in-season, off-season ▪ specific energy system requirements ▪ peaking
16	Exercise physiology <ul style="list-style-type: none"> • critically evaluate training programs designed to improve performance in relation to <ul style="list-style-type: none"> ▪ overtraining ▪ injured athletes ▪ tapering ▪ recovery ▪ maintenance
17	<ul style="list-style-type: none"> • complete practical assessments • examination revision • exam and exam feedback

Appendix F - Lab Activity: Exercise in the heat

This task will require you to investigate responses the body makes when exercising in different environmental conditions and examine the implications of the findings on the design of training programs.

EQUIPMENT:

- Body Weight scales
- Digital thermometer
- Clothing appropriate for subjects
 - Subject 1 – Tracksuit, t-shirt, shorts, beanie, socks and sport shoes
 - Subject 2 – T-shirt, shorts, socks and sport shoes
- Heart rate Monitor
- Stopwatch
- Borg's Perceived Rate of Exertion (BPE) chart

INSTRUCTIONS:

- Two subjects of similar fitness levels and size will complete 15 minutes of activity.
- Each subject will be wearing a Heart Monitor.
- Subjects will run lengths of the basketball court and will attempt to keep the pace at a consistent level.
- Subject 1 will perform the test wearing PE uniform with appropriate footwear.
- Subject 2 will perform the test wearing a Tracksuit, T-shirt, beanie and appropriate footwear.
- Subjects will only be permitted to drink water before and after the exercise period
- Subjects will be weighed in shorts and t-shirt after their pre-exercise drink and before their post-exercise drink
- Subjects will have their body temperature measured before, during (every 3 mins) and after exercise
- Subjects will have their heart rate and breathing rate measured before, during (every 3 mins) and after exercise
- Subjects will also be assessed using the Borg's Perceived Rate of Exertion (RPE) during (every 3 mins) the activity.
- Subjects will have the number of lengths of the court run recorded.

DATA COLLECTION

The following is to be presented in table and graph format for each subject.

TABLE

- Pre-activity and post-activity body weight
- Lengths run
- Body Temperature (Pre-activity, during and post-activity)
- Heart Rate (Pre-activity, during and post-activity)
- Breathing Rate (Pre-activity, during and post-activity)
- Perceived Exertion Rate

GRAPH

- Body Temperature (Pre-activity, post-activity and timed intervals during activity)
- Breathing rate (Pre-activity, post-activity and timed intervals during activity)
- Heart Rate (Pre-activity, post-activity and timed intervals during activity)
- Borg's RPE (timed intervals during activity)

ANALYSIS

1. Tabulate and graph the above data. **(4 marks)**
2. Compare the results of the subjects performing in the two different environmental conditions. Using the data recorded, clearly explain the influence that the two different environmental conditions had on the physiology of each subject. **(6 marks)**
3. Explain the benefits for acclimatising an athlete before a major event in the heat? **(5 marks)**
4. What are the dangers of not preparing athletes for optimal performance in the heat? **(3 marks)**
5. What advice would you give to the athletes participating in the above test to ensure that they maintain safe hydration levels. **(3 marks)**
6. Jade is a 1500m runner who has made the team for the pacific school games to be held in Cairns, Queensland. Explain the alterations and adjustments she should make to her training program and routine to achieve optimal performance at the games. **(4 marks)**

Appendix G - Remember the Titans

Task 6: Remember the Titans (26 marks)(10%)

Answer questions based on the film "Remember the Titans".

Time of assessment

Two weeks

What you need to do

Watch the DVD 'Remember the Titans'.

Prepare answers to the following questions:

1. Identify the leadership styles used by Yoast and Boone. (2 marks)
2. Using examples, compare and contrast the leadership styles of Yoast and Boone. (3 marks)
3. Describe three factors which initially got in the way of the Titans working together as a team. (3 marks)
4. Describe the four factors that Carron believes affect the cohesiveness of a team. For each factor describe examples from the film. (8 marks)
5. Using examples from the film, discuss three strategies that Coach Boone implements in his attempt to bring the team together as a cohesive unit. (6 marks)
6. Explain and justify two ways in which Coach Boone could measure the cohesiveness of his team. (4 marks)

Resources

Remember the Titans DVD, (2000)

Appendix H - Case study school 2 Unit Outline

TERM 1	
Weeks	Content
<p>Ongoing throughout course</p> <p>Pg 5–56</p> <p>Heberle & Middleton</p>	<p>Developing physical skills, strategies and tactics</p> <ul style="list-style-type: none"> refine and adapt movement skills in modified and competitive situations focusing on consistency, precision, fluency and control adapt and implement strategic responses varying in complexity to situational demands in modified competitive practical situations e.g. changing environmental factors, strengths and weaknesses of opposition, tactics of opposition, phases/stages of play in a selected sport, critically analyse movement skills of self and others using movement analysis techniques and biomechanical principles
<p>1</p> <p>Pg 125–178</p> <p>Heberle & Middleton</p>	<p>Functional anatomy</p> <ul style="list-style-type: none"> explain the structure of skeletal muscle i.e. epimysium, fascicle, perimysium, muscle fibre, myofibril explain how skeletal muscles contract in relation to sliding filament theory i.e. the role of myosin, actin and the sarcomere understand the relationship between the velocity and duration of muscle contraction to the amount of force exerted by the i.e. <ul style="list-style-type: none"> contraction. force–velocity force–length understand the function of the nerves, spinal cord, motor unit (dendrite, axon, neurone) <p>Practical - Basic Skills – Dig & Set</p>
<p>2</p>	<p>Functional anatomy</p> <ul style="list-style-type: none"> describe the relationship between muscle contraction and nerve function identify fast and slow twitch fibres and their relationship to physical performance types (sprint, endurance) i.e. characteristics of fibres: <ul style="list-style-type: none"> Type I Type II Type IIb <p>Practical - Basic Skills – Dig & Set</p>
<p>3</p> <p>Pg 271–412</p> <p>Heberle & Middleton</p>	<p>Exercise physiology</p> <ul style="list-style-type: none"> describe the relationship between energy demands and nutritional requirements during physical activity i.e. <ul style="list-style-type: none"> nutritional considerations—balanced diet, glycaemic Index, fats, proteins, carbohydrates, fluid replacement <p>Practical</p> <ul style="list-style-type: none"> Basic Skills – Spike, Block & Serve
<p>4</p>	<p>Exercise physiology</p>

	<ul style="list-style-type: none"> describe the relationship between energy demands and nutritional requirements during physical activity i.e. <ul style="list-style-type: none"> phases of activity—pre-competition, during exercise, recovery <p>Practical - Basic Skills – Spike, Block & Serve</p>
5	<p>Exercise physiology</p> <ul style="list-style-type: none"> explain the physiological changes brought on by the use of performance enhancers i.e. dietary supplements, anabolic steroids <p>Practical - Intermediate Skills – Float and Jump Serve</p>
6	<p>Exercise physiology</p> <ul style="list-style-type: none"> critically evaluate training programs designed to improve performance in relation to periodisation i.e. micro cycle, macro cycle, pre-season, in-season, off-season: <ul style="list-style-type: none"> specific energy system requirements peaking <p>Practical - Intermediate Skills – Digging hard driven balls</p>
7	<p>Exercise physiology</p> <ul style="list-style-type: none"> exercise in varying environmental conditions (practical lab) <p>Practical - Intermediate Skills – Diving and chasing loose balls</p>
8	<p>Exercise Physiology</p> <ul style="list-style-type: none"> evaluate the implications of preparing and performing in varying environmental conditions i.e. heat/humidity, altitude, cold <p>Practical - Strategy and Tactics – Positioning – defensive and offensive</p>
9	<p>Exercise physiology</p> <ul style="list-style-type: none"> critically evaluate training programs designed to improve performance in relation to <ul style="list-style-type: none"> overtraining injured athletes tapering recovery maintenance <p>Practical - Strategy and Tactics – Positioning – defensive and Offensive</p>
10	<p>Sports psychology</p> <ul style="list-style-type: none"> analyse mental skills strategies used pre, during and post performance to manage stress, motivation, concentration, self-confidence and arousal levels i.e. self-talk, relaxation, performance routines, goal-setting, imagery <p>Practical</p> <ul style="list-style-type: none"> Strategy and Tactics – 1 setter system
11	<p>Sports psychology</p> <ul style="list-style-type: none"> define, understand and apply the concept of being ‘in the zone’ or the ideal performance state (IPS) and how an athlete reaches and operates within the individual zone of optimal functioning (IZOF) <p>Practical</p> <ul style="list-style-type: none"> Strategy and Tactics – 2 setter system

HOLIDAY & TERM 2	
1	<p>Sports psychology</p> <ul style="list-style-type: none"> • apply Carron’s model of group cohesion to analyse own performance within a group setting in physical activity i.e. <ul style="list-style-type: none"> ○ the relationship between social loafing and group cohesion ○ the influence of social loafing on individual and group performance ○ identify strategies to improve group cohesion <p>Practical</p> <ul style="list-style-type: none"> • Strategy and Tactics – General game play
2 Pg 57–124 Heberle & Middleton	<p>Motor learning and coaching</p> <ul style="list-style-type: none"> • define and understand transfer of learning and identify the different categories i.e. skill to skill, theory to practice, training to competition • explain the effects of transfer of learning i.e. positive, negative and zero effects, and their impact on improving skill execution and movement efficiency <p>Practical - Game Play</p>
3	<p>Motor learning and coaching</p> <ul style="list-style-type: none"> • analyse movement skills of self and others to identify errors, provide feedback, and suggest corrections to improve performance • design coaching/training activities to improve performance in selected skills including shaping, chaining, static-dynamic, simple-complex <p>Practical - Game Play</p>
4	<p>Motor learning and coaching</p> <ul style="list-style-type: none"> • evaluate the use of different leadership styles to suit audience Needs • explain the process of using tools such as checklists and video to analyse and reflect on self and others’ performance in physical activity e.g. strengths and weaknesses, mental versus physical performance, error correction • analyse learning and skill development in relation to correction and improvement of self and others e.g. use of video analysis, reflective journals, peer/mentor/coach feedback, questionnaires <p>Practical - Game Play</p>
5 Pg 473–483 Heberle & Middleton	<p>Complete practical assessments Functional Anatomy</p> <ul style="list-style-type: none"> ○ Exercise Physiology ○ Sport Psychology
6	EXAM WEEK
7 Pg 179–270 Heberle & Middleton	<p>Exam Review</p> <p>Biomechanics</p> <p>Review of biomechanical principles and concepts:</p> <ul style="list-style-type: none"> • Motion: <ul style="list-style-type: none"> ○ linear motion

	<ul style="list-style-type: none"> ○ angular motion ○ general motion ○ projectile motion <ul style="list-style-type: none"> ✓ optimal projection ✓ trajectories ✓ range of projectiles • Newtons laws of motion • Speed, velocity, acceleration <p>Practical</p> <ul style="list-style-type: none"> • Strategy & Tactics – maintaining possession & pressurising the defence
8	<p>Biomechanics</p> <ul style="list-style-type: none"> • define and relate momentum to a selected sport <ul style="list-style-type: none"> ○ conservation of momentum (Newton’s 2nd law) ○ impulse–momentum relationship ○ coefficient of restitution • define and relate the following to a selected sport i.e. <ul style="list-style-type: none"> ○ moment of inertia ○ angular momentum <p>Practical</p> <ul style="list-style-type: none"> • Strategy & Tactics – maintaining possession & pressurising the defence
9	<p>Biomechanics</p> <ul style="list-style-type: none"> • identify the relationship between torque and the use of levers in sport: <ul style="list-style-type: none"> ○ $\text{torque} = \text{force} \times \text{perpendicular distance of lever arm}$ • biomechanical principles to analyse physical skills <p>Practical</p> <ul style="list-style-type: none"> • Basic skills – evasive running, beating the defence

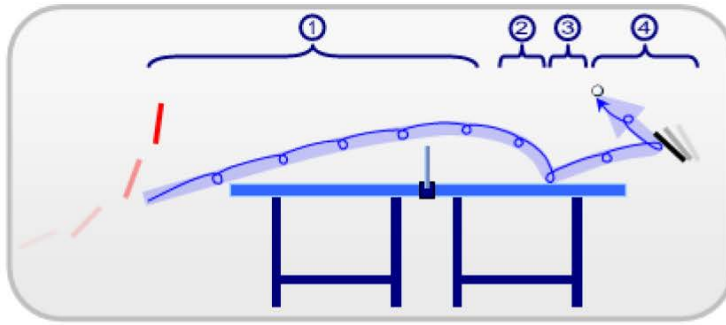
Appendix I - Biomechanics Movement Analysis

3A/3BPES TASK : Movement Analysis	WEIGHTING: 3AB – 5% TYPE: Investigation OUTCOME 3: Knowledge and understandings of movement and conditioning concepts for physical activity ESSENTIAL CONTENT - UNIT 3A/3B: Movement Principles and Concepts LEARNING CONTEXT: Describe how biomechanical principles relate to performing physical activity
Overview This task will require you to research the biomechanical principles evident in a pre-determined range of activities and sporting movements. You will demonstrate the evidence of your research by completing an in-class written assessment. You will have 60mins to complete the task. Use the paper provided.	



1. *Segmental interaction, summation of velocity, summation of force, summation of momentum, sequential movement and kinematic chain all relate to the same issue.*

Explain the underlying principle and show how it has been used by the badminton player in the smash above. **(5 marks)**



The diagram above shows a table tennis ball being hit from the left (Player A) to the right before being hit (Player B).

2. Use information in the diagram and your knowledge of *Bernoulli's Principle* and the *Magnus Effect* to explain the spin applied by Player A.

(6 marks)



3. a) Using the example above, explain what the baseball pitcher is doing to maximise impulse on the ball.

(3 marks)

b) How could the concept of a *force couple* be linked to this action?

(2 marks)



4. During the forward swing of the kicking leg, the player above (initially) flexes the leg at the knee, then extends just before contact with the ball while pointing the toes (plantar flexing).

Use the terms *moment of inertia*, *lever length*, *muscle force-length* and *conservation of momentum* to explain why this technique helps transfer maximum velocity of the ball.

(10 marks)



5. "Balance is a state of body equilibrium or stability"

Explain how a sumo wrestler can improve balance (therefore equilibrium and stability) while grappling with an opponent.

(5 marks)

Appendix J – Preparing for competition

Task 4: Preparing for a competition

Research the following

Elite athletes may be required to compete in varying environmental conditions throughout their career. Choose one of the following competitions and answer the questions that follow.

	Competition	Environmental conditions
1	October 1968 summer Olympic games (Mexico City, Mexico)	High altitude (approximately 2,300m above sea level)
2	February 2010 winter Olympic games (Vancouver, Canada)	Temperatures generally below freezing. Average daily temperatures 3 degrees Celsius
3	June 2010 football world cup (major venue - Johannesburg South Africa)	Typically hot and dry. Daily temperatures often exceed 30 degrees Celsius

You will be required to write answers to these questions in – class on

1. Describe the impact of environmental conditions on an athlete's performance in your chosen competition. In particular, describe three physiological effects on the body and use specific examples from your chosen competition in your answer. (8 marks)

NOTE: in the case of the Olympic games, nominate a specific event, such as the marathon.
2. Explain four actions an athlete could take to best prepare for the competition. (8 marks)
3. Discuss how the concepts of peaking and tapering can be applied to assist an athlete to best prepare for the competition. (4 marks)
4. The use of substances to enhance performance remains an issue for competition organisers. Profile one illegal performance enhancer and describe three possible side effects and three consequences of its use. (8 marks)

Appendix K - Case study school 3 Unit Outline

T.W	Theory Course Content	UWA	Nelson	Topic Course Content	Practical Course Content	Resources (other)	Assessments
1.1	*Course Introduction – Text, Program, Course Outline Principles of Movement (Biomechanics) www.siliconcoach.com/UWA *Biomechanics Introduction – Stage 2 PES review	19-22		Principles of Movement (Biomechanics) Inertia Newtons 3 Laws Qualitative and Quantitative Analysis Vectors (Force & Acceleration); Contact Forces Force-Time Relationships Muscle Structure & Mechanics – Force & Velocity/Length/Time Impulse	Developing skills and drill familiarity Serve (overhead float, jump, combined) Forearm pass: free ball Forearm pass: serve reception Forearm pass: spike reception Front set Spike Block	WACE Practical Exam support material www.curriculum.wa.edu.au	
1.2	*Biomechanics – Linear Kinetics	23-34	147-154	Systems/Qualitative and Quantitative			
1.3	*Biomechanics – Angular Kinetics *Biomechanics – Fluid Mechanics	35-45 45-51	136-146 154	Systems Segmental Interaction – Kinematic Chain Balance; Torque; Moment of Force; Angular Inertia; Equilibrium; Centre of Gravity Principle of Spin; Magnus Effect Buoyancy; Drag; Lift; Bernoulli’s Principle Connections to Inter-Disciplinary Areas		Old Text (p 89-151) Brisbane Lions Dartfish www.coachesinfo.com	Quiz Biomechanics (1%)
1.4	*Biomechanical Approach to motion analysis *Revision/Catch-up lessons	51-54 70 & 72-73	160-180		Task 1 Data Collection and analysis	Biomechanical Websites Handouts DVD – Biomechanics	Task 1 Commence Practical Assessment – Self Analysis
1.5	YEAR 12 RETREAT WEEK						Test 1 Biomechanics (4%)

T.W	Theory Course Content	UWA	Nelson	Topic Course Content	Practical Course Content	Resources (other)	Assessments
1.6	Developing Skills, Strategies and Tactics *Introduction: Advanced tactics, strategy and skill		2-14	Developing Skills, Strategies and Tactics Advanced Tactics – Zones; Man on Man; Open Attacking Areas; Movement; Maintaining Possession; Adapting to situation of game (Perspective – Player & Coach)	Volleyball Tactical framework: Offence Defence WACE Practical Exam support material	Old Text (p28-86 & p264-281) Computer Research – Different Sports and Tactics (Worksheet) You Tube – Footage of Tactics and Strategies Volleyball Handout (Nelson PE Studies) CD – Nelson PE Studies (Tactics & Interviews)	
1.7	*Strategic and tactical development		17-38	Sport Examples – Soccer; AFL; Netball; Basketball; Tennis; Badminton; Golf; Cricket; Swimming; Cycling Equipment Selection – Enhancing Performance; Technological Advances; Cardio-vascular Responses to physical activity - Effects of Humidity, Altitude, Heat and Cold; Acclimatisation			
1.8	Assignment Work					Old Text (p154-222) www.coachesinfo.com	
1.9	Motor Learning and Coaching *Motor Learning and Coaching – Introduction *Transfer of Learning	259-262 263-271	40-49	Motor Learning and Coaching Transfer of Learning - Effects - Categories Movement Analysis - Motion Analysis - Feedback - Improvement	Ultimate Frisbee Introduction: Game familiarisation for Task 2	Training Programmes – Brisbane Lions Institute of Sport (AIS; WAIS; NSWIS; VIS) DVD – Individual Differences DVD – Coaching Styles DVD – Training Strategies	
1.10	*Movement Analysis *Improving Performance in Selected Skills	271-278 279-284	54-69 70-76	Simple & Complex skills - Shaping - Chaining			Task 1 Due Practical Assessment – Analysis of Self (10%)

T.W	Theory Course Content	UWA	Nelson	Topic Course Content	Practical Course Content	Resources (other)	Assessments
2.1	Motor Learning and Coaching *Leadership Styles *Technique Evaluation and Performance Evaluation	285-290 290-304	54-69	Motor Learning and Coaching Leadership Styles Movement Technique Evaluation – checklist Reflective Learning	Ultimate Frisbee Class Tournament Task 2 Data Collection	CD – PE Studies Nelson Text (Examples of Annual Training Plans – National Hockey)	Task 2 Commence Performance Analysis
2.2	*Motor Learning and Coaching Revision	322-325 314-321					
2.3	Assignment Work						
2.4	Assignment Work						
2.5	Semester One Revision of Topics – Biomechanics, Strategies & Tactics, Motor Learning & Coaching						
2.6							
2.7	EXAMINATION WEEK 1						Sem 1 Exam (12%)
2.8	EXAMINATION WEEK 2						
2.9	*Examination Review Sports Psychology *Sports Psychology – background information *Routines *Imagery	197-212 2-18	292 314	Mental Skills and Training Mental Skills Strategies Pre, during, post performances Carron's Model – Group Cohesion Sociograms Social Loafing	Alternate Practical Exam Sport practice Task 3 Data Collection	Old Text (p223-256) Internet Access DVD – The winning headspace	
2.10	*Relaxation *Self-Talk *Goal Setting	212-227 19-40 238-243	292 318				
2.11	*Group Cohesion *Revision	227-235 41-48 254-257	326				

T.W	Theory Course Content	UWA	Nelson	Topic Course Content	Practical Course Content	Resources (other)	Assessments
3.1	Functional Anatomy *Functional Anatomy – Introduction & Skeletal Muscle Structure and Contraction		117	Functional Anatomy Skeletal Muscle Structure Muscle Contraction - Sliding filament theory Nervous system	Alternate Practical Exam Sport practice	Old Text (p 370-434)	
3.2	*Functional Anatomy – Developing Muscle Forces *NeuroMuscular Structure and Function						
3.3	*Developing Muscle Tension						
3.4	Exercise Physiology *Exercise Physiology – Introduction	101-105	198 244	Energy for Physical Activity Planning, Implementing and Evaluating Nutrition – Pre-Season, In Season and Post Season + Pre-game/training, during game/training and post game/training Hydration Plan Energy Systems – Training appropriately and reflected in annual plan Environmental influences on performances Performance enhancers - Periodization - Peaking - Tapering - Maintenance - Recovery - Over Training - Injured Athletes	Volleyball Practical Exam preparation	Old Text (p282-362) Internet Access DVD – Recovery From Exercise DVD – Food and Sports Performance DVD – Training Awareness DVD – All systems Go!	Task 3 Due - Mental Skills Investigation
3.5	*Nutritional Considerations for Exercise * Nutritional Considerations for Phase Training	106-113 113-122	184				
3.6	*Environmental Influences on Performance	123-138	208				
3.7	*Performance Enhancers – Ergogenic Aids (Legal v Illegal)	139-149	223				
3.8	*Training Programs and Training Principles	150-157	269				
3.9	Revision Q p184-186	ICT – Computer Labs					
3.10	Examination Revision Week/Preparation/Review						
							Test 3 Sports Psychology & Functional Anatomy (5%)
							Task 4 Practical Exam (20%)
							Test 4 Exercise Physiology (5%)

Appendix L - Practical Investigation and Report

Practical Investigation and Report: Motor Learning and Coaching 'Ultimate Frisbee' game performance analysis of self and others

Type: Investigation	Total marks = 30
Content:	
<ul style="list-style-type: none">• Design a game notational analysis system.• Collect notational performance data from an actual performance.• Analyse performance using the notational data collected, reflecting on skill and strategically-related strengths and weaknesses of performance.• Create training activities that are designed to improve performance of self and others.	

Preparation: Read & understand pages 298-299 of your text before commencing this assignment.

Task outline

When completing the experiment outlined below you are to determine the important performance elements of Ultimate, create a game notational analysis system to describe and evaluate performance and create a skill and/or strategy-based intervention that would potentially address your own and others weaknesses and improve performance. Three games of 10 minutes duration will be played.

The first game is to experience and determine the requirements of the game of Ultimate, permitting a notational analysis system for data to be collected on 'skill execution' and 'strategical performance'.

The second game, is to be played with the participant using their non-preferred hand to throw and catch and will allow 'skill execution' data to be collected. The use of the non-preferred hand will potentially permit greater errors in performance to be observed and therefore create more detailed discussion opportunities.

The third game, is to be played with the participant using their preferred hand to throw and catch and will allow 'strategical performance' data to be collected. The use of the preferred hand will potentially permit participants to focus on strategical performance, rather than skill execution.

Condition A: Experiencing the game of Ultimate (using preferred hand to throw and catch the Disc)

- Using the instructions 'Introduction to Ultimate', develop an understanding of the rules and demands of playing a game of Ultimate.
- Determine four teams of equal number and ability. Identify them as Team 1, 2, 3 and 4.
- Play games of 10 minutes duration where Team 1 is to play Team 2; and, Team 3 is to play Team 4. Experience and evaluate the successful performance requirements of playing a competitive game of Ultimate.
- Option: Consider a video recording of the game for the purposes of supplementing post-performance analysis.

Condition B: Creating a 'Notational Analysis System' for the game of Ultimate

- At the conclusion of the game, each player is to use their game experiences to create a 'notational game analysis system' that allows game-based data to be collected, that reflects the demands of the game and quality of performance. Ensure that all of the criterion that you create can be accurately defined, observed and have data recorded during a game of Ultimate. Your notational analysis could include, but may not be limited to, the following:
 - i. Skill execution (number of times, relative success and quality of execution during performance):
 - a. Throwing (recording number of throws made; and consider accuracy of throw, length of throw, type of throw, action evaluation – including preparation phase, delivery phase and follow through along with biomechanical qualities such as velocity development and balance).
 - b. Catching (recording number of catches made and the field position in which they were received; and consider success of catch, type of catch, action evaluation – including preparation phase, and contact/absorption phase along with biomechanical qualities such as force absorption and balance).

Data must be collected for two (2) skill execution components.
 - ii. Strategical performance (number of times and relative success of execution during performance):
 - a. Offensive contribution (number of offensive uncontested and contested possessions, the number of times when their team is in possession a player makes space, number of offensive scoring assists and number of successful or unsuccessful scoring efforts etc).
 - b. Defensive contribution (number of defensive contested actions, number of successful or unsuccessful intercepts, number of defensive contested possessions, and number of times successfully or unsuccessfully defended scoring efforts etc).

Data must be collected for two (2) strategical performance components.

Condition C: Part 1 – Notational analysis collection of 'skill execution' whilst playing the game of Ultimate (10 minute game – using the non-preferred hand to throw and catch the Disc)

- Determine player-performance observation buddy's by the pairing of players from different teams using the following instructions. Players from Team 1, will be paired with a player from Team 3. Players from Team 2, are to be paired with a player from Team 4. All players must have an observation buddy.
- Whilst working in the allocated pair, each participant is to explain and discuss their '**skill execution**' component of the notational analysis system, identifying the criterion that will be used to assess '**skill execution**' during the game.
- Play games of 10 minutes duration where all participants are to use only their non-preferred hand to throw and catch. Team 1 is to play Team 2, Team 3 and Team 4 are to undertake a '**skill execution**' analysis on their buddy; then Team 3 is to play Team 4 whilst Team 1 and 2 members are to undertake a '**skill execution**' notational analysis on their buddy.

- Participants are to use the notational analysis system that they designed to collect performance data on their buddy.
- Option: Consider a video recording of the game for the purposes of supplementing post-performance analysis.

Condition C: Part 2 – Notational analysis collection of ‘Strategical performance’ whilst playing the game of Ultimate (10 minute game – using the preferred hand to throw and catch the Disc)

- Determine player-performance observation buddy’s by the pairing of players from different teams using the following instructions. Players from Team 1 will be paired with a player from Team 3. Players from Team 2 are to be paired with a player from Team 4. All players must have an observation buddy.
- Whilst working in the allocated pair, each participant is to explain and discuss their ‘*Strategical performance*’ component of the notational analysis system, identifying the criterion that will be used to assess ‘*Strategical performance*’ during the game.
- Play games of 10 minutes duration where Team 1 is to play Team 2 whilst Team 3 and Team 4 are to undertake a ‘*Strategical performance*’ analysis on their buddy; then, Team 3 is to play Team 4 whilst Team 1 and 2 members are to undertake a ‘*Strategical performance*’ notational analysis on their buddy.
- Participants are to use the notational analysis system that they designed to collect performance data on their buddy.
- Option: Consider a video recording of the game for the purposes of supplementing post-performance analysis.

Questions:

In presenting your findings, respond to the following:

- Provide an actual example of your analysis from the game (at least one skill execution, and one strategic performance data collection example). (4 marks)
- Discuss the effectiveness and critically analyse, with suggestions for improvement, the notational analysis that you designed. (5 marks)
- Present your data in a manner that best represents your information. Raw data should be interpreted and summarised for the benefit of the player or anyone viewing it. (5 marks)
- Apply the “Motion Analysis Model” to your subject. Describe, in detail, how the model relates to this task with specific reference to the “Intervention” stage. All “Motor Learning and Coaching” principles and methods should be considered here. (30 marks)**
- Design and present a tool by which the mental influence on your subject’s performance could be assessed. Discuss the importance and relevance of this. (6 marks)

Appendix M - Investigation and Report: Exercise Physiology

Task outline

1. Select one of the following day-long sporting examples:
 - A professional golfer playing 18 holes in a tournament; **OR**
 - A gymnast performing a 90 second floor routine, followed by 30 second performances on the beam, uneven bars, and vault (with 40 second breaks in between); **OR**
 - An “A-League” professional soccer player playing a home game.
2. Cast yourself in the role of a “*high performance*” *manager* with overall responsibility for the physiological performance of the selected athlete.
3. **Identify and evaluate** the key nutritional components (pre, during and post competition) pertaining to this athlete, and describe how these can be used to maximise game day/competition performance. **(10 marks)**
4. **Identify and justify** a comprehensive **recovery regime** for the sport chosen. **(10 marks)**
5. **Predict, justify and evaluate** the **implications** and **strategies** for preparing and performing the selected sport in **either heat/humidity OR altitude. (10 marks)**

Appendix N - An extract from Case study school 4's Unit Outline

Week	Content Area	Content Breakdown
1-5	Exercise Physiology	<ul style="list-style-type: none"> • Energy demands and nutritional requirements during physical activity i.e. <ul style="list-style-type: none"> • phases of activity—pre-competition, during exercise, recovery • nutritional considerations—balanced diet, glycemic index, fats, proteins, carbohydrates, fluid replacement • Preparing and performing in varying environmental conditions i.e. heat/humidity, altitude, cold • Nutritional Interventions ie dietary supplements, anabolic steroids etc. • Training programs designed to improve performance <ul style="list-style-type: none"> • periodisation i.e. micro cycle, macro cycle, pre-season, in-season, off-season • specific energy system requirements • peaking • overtraining • injured athletes • tapering • recovery • maintenance
6 -10	Functional Anatomy	<ul style="list-style-type: none"> • Microscopic structure of skeletal muscle • Sliding filament theory of muscular contraction • Relationship between force–velocity and force–length. • The function of the nerves, spinal chord and motor unit • Muscle contraction and nerve function • Fast and slow twitch fibres - relationship to physical performance types (sprint, endurance) • Characteristics of fibres <ul style="list-style-type: none"> • Type I • Type IIa • Type IIb.

Appendix O - Movement Analysis

UNIT / SUBJECT	3AB PES
TASK 5	Movement Analysis
MARKS	32 Marks
WEIGHTING	8%

Conduct a movement analysis of **4 KEY** skills in a sport of your choice:

- Record/illustrate a performance for EACH skill – (This may be video/ still/diagrammatic). Think about best viewing angle and ensure you have a picture / footage of each phase of the skill

(2 marks)

- Using the movement analysis sheet on the course website, conduct a movement analysis. Look for a) key skill deficiencies, and b) biomechanical principles that apply to your skill

(8 marks)

- Skill correction: Outline the key teaching points related to each skill chosen. Include preparation/execution/follow through phases.

(6 marks)

- Explain clearly the application of two (2) biomechanical principles for each of the skills. Explain the most influential principles in detail and how they apply to the particular skill.

(16 marks/8 per principle)

TOTAL (32 marks)

Use the following resources to help you in this assessment task

- Your text book (chapter 10)
- Curriculum Council support material for practical examinations (URL below)

http://www.curriculum.wa.edu.au/internet/Senior_Secondary/Courses/WACE_Courses/Physical_Education_Studies

Appendix P - Nutrition for a Marathon Runner

NUTRITIONAL STRATEGIES FOR A MARATHON RUNNER

3AB PES	Assessment Task 5
Weighting	9%
Marks	30

This task is to explore the way in which athletic performance can be further enhanced with appropriate nutritional strategies and nutritional performance enhancers. You must identify and explain the nutritional requirements an athlete participating in a 42km marathon would have. To do this you need to design a 12hr diet plan for an athlete to follow leading up to and after the event. You will also need to choose one nutritional performance enhancer and identify the effects that it will have on the athlete.

Part A) Provide a detailed explanation of the nutritional requirements during a 42km marathon event, including; (8 marks)

- The role that the three macronutrients play throughout the marathon including the effect that they have on ATP production
- The importance of Glycemic Index and how it affects an endurance event
- Outline the different nutritional requirements for each phase of activity (pre-competition meal, pre-competition snack, during exercise snack, post exercise snack)

Part B) Design a 12hr diet plan for an athlete participating in a 42km marathon that commences at 10:00am and generally takes between 2hrs 45mins to 3hrs. (15 marks)

- This should be in the form of a table
- It should contain
 - Specific examples of food including volume consumed
 - The time and phase of activity that it is consumed
 - Type of food it is e.g. what is the main macronutrient and whether it has a high or low Glycemic Index

Part C) Choose one nutritional performance enhancer (legal or illegal) to be used during this event and identify and explain; (7 marks)

- Its benefits
- Side effects
- Optimum time for consumption