Investigating Socio-critical Discourses in Assessment

of Senior Physical Education in New Zealand

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Sally Anne Hart

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Abstract

There has been a growing interest in and, to some extent, adoption of, 'socio-critical' discourses in Health and Physical Education (HPE) in New Zealand and in physical education internationally. Evidence of a paradigm shift involving 'socio-critical' discourses is reflected in curriculum documents, course developments and assessment. With a gap in the research that addresses assessment practice in senior physical education in New Zealand, this study explored the selection, interpretation and application of National Certificate of Educational Achievement (NCEA) Level 1-3 standards. A case study methodology was used to generate in-depth insights into the factors influencing patterns of selection and non-selection of those standards explicitly linked to socio-critical discourses. NZQA data on national standard selection in NCEA Level 1-3 physical education from 2006 to 2010 was analysed to inform the case study selection and inquiry. Four teachers at two schools were involved in the research. Data collection methods included document reading, archival records, semi-structured interviews (individual), and a reflective diary. Data analysis was based on Miles and Huberman's (1994) data management and analysis methods.

The key findings showed that factors influencing selection / non-selection of socio-critical standards are complex and decision-making about selection can involve dichotomous thinking. The latter was associated with socio-critical and biophysical discourses, theoretical and practical knowledge and learning, body and mind, and physical education and health as separate knowledge bases. The data provided insight into the impact that issues associated with standard selection and interpretation can have in relation to teachers' design of teaching and learning programmes, students' pedagogical experiences and assessment associated with NCEA physical education. Furthermore, teachers' own habitus, beliefs, value orientation, language and pedagogical practice were shown to have a strong influence on understandings and application of standards.

Issues of alignment of curriculum, assessment and pedagogy were also explored. The study highlights the importance of teachers' understanding of the tensions, knowledge structures and power relations at play between curriculum, assessment and pedagogy. Data revealed important ways in which these matters inform and limit understandings of what constitutes legitimate and valued practice and learning in senior physical education.

Implications of this inquiry are explored for educational policy developers, senior secondary HPE teachers, all HPE teachers, HPE departments, pre-service teacher educators, senior secondary teachers working in other subject/learning areas and research. An extensive list of recommendations has been made. Several areas are identified as requiring further research. Further exploration of teachers' habitus, beliefs and values and the influence these have on the alignment of curriculum, assessment and pedagogy would be useful. In addition research into 'holistic' physical education 'in', 'through' and 'about' movement, in the context of NCEA, would facilitate more accurate and meaningful conclusions about teaching and learning and assessment experiences for secondary school students in NCEA physical education.

Key Words: physical education, curriculum, assessment, pedagogy, biophysical, socio-critical, discourses, dichotomies, habitus, beliefs, values, high stakes assessment, policy, standards, NCEA, NZC.

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Chapter 1

1.1 Topic Background

There has been a growth of interest in socio-critical pedagogy in physical education internationally (Brown & Penney, 2012; Penney & Hay, 2008; Thorburn, 2007) and in Health and Physical Education (hereafter, HPE) in New Zealand (Bowes, 2010a & 2010b; Bowes & Bruce, 2011; Culpan, 2004, 2005, 2008; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014). The extent and nature of the adoption of socio-critical pedagogy in practice are issues that require further exploration. Evidence of a paradigm shift involving 'socio-critical' discourses in senior secondary physical education are reflected in curriculum documents, course developments and assessment (Brown & Penney, 2012; Culpan, 2004, 2005, 2008; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014; Penney & Hay, 2008; Thorburn, 2007).

In New Zealand, socio-critical discourses are both explicit and implicit in the context of the HPE NZ curriculum and National Certificate of Educational Achievement [1] (NCEA) Levels 1-3 (Bowes, 2010a & 2010b; Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014; Penney & Jess, 2004, Penney, Brooker, Hay & Gillespie, 2009). Research was therefore broadly situated in senior secondary education and focused on assessment in senior physical education within the NCEA Levels 1-3.

NCEA Levels 1-3 provides the assessment framework and requirement for years 11-13 in physical education and comprises solely internally implemented assessments. The Achievement Standards [2] (AS) provide opportunity to assess across the breadth of the physical education curriculum, including biophysical and socio-critical knowledge 'areas'. Within NCEA AS, socio-critical discourses are explicit within both the criteria and the explanatory notes that support these. Examples of criteria that make explicit reference to socio-critical discourses are:

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[1] **NCEA:** National Certificate of Educational Achievement is New Zealand's qualification system for senior secondary school students. It is recognised by employers and used as the benchmark for entry into universities and polytechnics (Ministry of Education, 2012).

[2] Achievement Standards for NCEA sit on the Directory of Standards. Each standard describes what a student needs to know, or what they must be able to do to meet the standard. Having met it, they will gain credits towards national qualifications. Achievement Standards are New Zealand Curriculum based. (NZQA, 2014).

- Critically discuss the relationship between physical exercise/activity and health, and the implications for self and society (AS 90432).
- Critically discuss the significance of a sporting event, physical activity or festival, and how it impacts on self, others and society (AS 90437).
- Critically examine a current physical activity event or trend or issue and explain in detail its impact on New Zealand society (AS 90743).

Explanatory notes further identify the intent of the AS, such as *"Critically examine* involves critical analysis, evaluation and reflection, all of which are based on the process of critical thinking – examining, questioning, evaluating and challenging taken-for-granted assumptions about issues and practices" (AS 90743, Explanatory Note 5). Limited evidence exists in relation to the extent to which the foregrounding of socio-critical discourses have been reflected in pedagogy and more specifically in assessment practice within senior physical education in New Zealand.

I have gained an interest in these issues through my prior role as National Moderator for physical education. The role of National Moderator has a goal of achieving valid, fair and consistent assessment at a national level. This involved the moderation of assessment tasks and confirmation of assessor judgements on learner work against the national standards. Furthermore, the role involved communication with the sector including clarification documents, newsletters, exemplar development, web communication, National Moderator reports, best practice workshops and conference presentations.

Through my work as National Moderator, I have anecdotal evidence relating to the 'apparent' adoption of socio-critical standards. Specifically, conversations with teachers and the patterns of standards selected have highlighted a variety of issues involving the use of socio-critical standards in NCEA Levels 1-3 since their inception in 2004. The issues include standard selection and prioritisation, interpretation and application of these standards, and intended and actual outcomes arising from interpretation and application.

This inquiry is underpinned by an acknowledgment that the development of curriculum and assessment in physical education is a highly political process, featuring competing discourses and pedagogical beliefs (Bowes, 2010a & 2010b; Brown & Penney, 2012; Evans & Penney, 1995; Culpan & Bruce 2007). I have specifically explored standard selection in the context of NCEA physical education Levels 1-3 and pursued teachers' interpretation and application of

standards expressing socio-critical discourses.

1.2 Explaining my Interest

Over a period of time, personal and professional experiences have shaped my philosophical position on physical education. Personally my own secondary school physical education and teacher education were dominated by a focus on biophysical sciences. Professionally, since my entry into the physical education sector as a practitioner, a range of influences have affected my engagement with socio-critical discourses, including new curriculum documents and professional experiences.

The development of my understanding of socio-critical discourses has had a major impact on the way I have adpoted these aspects into my practice. I believe that socio-critical discourses and biophysical discourses should not be seen as dichotomous and that the relationship can be dialectical. For a dialectical relationship to occur the focus should be on the key concepts, threshold concepts and underlying concepts of the New Zealand Curriculum document. A variety of concepts can be explored and practical contexts should be both inherent and relevant to the learners. The focus should be that the concepts, and the contexts used to teach these, allow for learning to occur in, through and about movement (Arnold, 1979).

Influences on my understanding of socio-critical discourses include my experiences and knowledge of the development and implementation of *Health and Physical Education in the New Zealand Curriculum* (Ministry of Education (MoE), 1999) and *The New Zealand Curriculum* NZC (MoE, 2007). My thinking has also been influenced by the text *Making Meaning: Making a Difference* (MoE, 2004), my commitment to lifelong learning through professional development and postgraduate studies, the process of reflective practice though my career, and dialogue in the context of the roles I have had across the physical education sector including:

- Head of Health and Physical Education
- Scholarship[3] material developer and critiquer physical education
- Scholarship examiner and panel leader (marking) for Scholarship physical education

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[3] Scholarship provides recognition and monetary reward to top students in their last year of schooling. Scholarship exams enable candidates to be assessed against challenging standards, and are demanding for the most able candidates in each subject. (NZQA, 2014)

- facilitator of teacher development for NCEA Levels 2, 3 and Scholarship
- resource/assessment developer and contractor for Physical Education New Zealand
- resource/assessment developer for my own resource company
- member of the consistency review group (2004) for the Ministry of Education (NCEA Levels 1-3 and Scholarship)
- official for standards alignment project for the Ministry of Education (2009/2010)
- New Zealand Qualifications Authority [4] (NZQA) National Moderator for physical education for five and a half years

As mentioned above, through the roles I held, I have encountered anecdotal evidence relating to the adoption and implementation of 'socio-critical standards' in physical education and specifically, NCEA physical education. The specific issues that I was interested to pursue in this research centred on the selection and prioritisation of socio-critical standards, the interpretation and application of these standards, and the intended and actual outcomes arising from interpretation and application.

1.3 Research Aims and Design

As indicated above, this research was broadly situated in senior secondary education and specifically explored assessment in senior physical education (i.e. years 11-13, for students aged approximately 15-17) within the NCEA Levels 1-3. The inquiry sought to extend understanding of and insights into socio-critical discourses within assessment of senior physical education in New Zealand. The context in which the inquiry was based is 'NCEA Level 1-3 physical education 2006-2010'. Three research questions underpinned the study:

1) What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?

2) How are teachers interpreting and applying socio-critical standards in senior physical education?

3) What are the intended and actual student outcomes of implementation of the socio-critical standards?

To achieve the above aims and address these research questions, the study employed a case study research design, involving two schools that were selected specifically because of

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[4] New Zealand Qualifications Authority's role in the education sector is to ensure that New Zealand qualifications are regarded as credible and robust, nationally and internationally, in order to help learners succeed in their chosen endeavors and to contribute to New Zealand society (NZQA, 2014).

contrasting patterns of standard selection. Chapter 3 provides full details of this selection and Chapter 4 reports data that directly informed the selection. As this was an exploratory study, the aim was to generate data that would provide 'thick description' and 'deep knowledge' (Geertz, 1973) of the issues being explored. Yin (1989) considers multiple or comparative case studies as still following the same methodological framework as an individual case study, with the potential for more robust findings. The intent of this comparative study was to find contrast rather than to find replication.

Prior to embarking on the case study research, data was collected in phase one of the research from NZQA on national standard selection in NCEA Level 1-3 physical education. Phase one (findings of which are reported in Chapter 4) involved the reading of NCEA Achievement Standards for physical education to ascertain which standards were explicit in focusing on socio-critical discourses. In addition national data from NZQA on standard selection was gathered. The number of schools and students selecting standards nationally was analysed. Two schools matching patterns of selection/non-selection clearly arose from the data of all schools in the region being targeted. One school that was selecting Achievement Standards fairly evenly 'across the board' and one school that was clearly choosing not to select the targeted socio-critical standards were selected for the comparative case study. Findings of the comparative case study are reported in Chapter 4 and discussed in Chapter 5.

1.4 Significance of the Study

With a gap in the research that addresses standard, interpretation, selection and assessment practice, this research provides insights into assessment practice in NCEA Level 1-3 physical education 2006-2010. To date, there have been no published studies on assessment practice in NCEA Level 1-3 physical education. This exploratory study provides some insight into assessment practice and the complexities involved in schools' and teachers' decisions relating to assessment in NCEA.

1.5 Definition of Key Terms

The interpretation of key words can differ between academic fields. The following terms have been defined to convey their interpretation and use in this inquiry. Additional education terms have been provided for readers unfamiliar with the New Zealand education system.

Secondary school students: This term refers to students in the New Zealand secondary school system which incorporates an average starting age of 13 and finishing age of 17. For this study the secondary school students are those enrolled in high stakes assessment NCEA Level 1-3, approximately 15 to 17 years of age.

School decile rating: Decile rating is the classification system used in the New Zealand education system to categorise schools based on the extent to which they draw their students from low socio-economic communities. There are ten deciles; decile 10 schools are the 10% of schools with the lowest proportion of students from low socio-economic communities (Ministry of Education, 2011).

NCEA: National Certificate of Educational Achievement is New Zealand's qualification system for senior secondary school students. It is recognised by employers and used as the benchmark for entry into universities and polytechnics (Ministry of Education, 2012).

NZQA: New Zealand Qualifications Authority's role in the education sector is to ensure that New Zealand qualifications are regarded as credible and robust, nationally and internationally, in order to help learners succeed in their chosen endeavours and to contribute to New Zealand society (NZQA, 2014).

Achievement Standards: Achievement Standards for NCEA sit on the Directory of Standards. Each standard describes what a student needs to know, or what they must be able to meet the standard. Having met it, they will gain credits towards national qualifications. Achievement Standards are New Zealand Curriculum based. (NZQA, 2014)

1.6 Thesis Structure

This thesis is divided into six main chapters: introduction, literature review, research design and methods, findings and analysis, discussion and conclusions. Other relevant sections include academic references and the appendices, which contain a wide range of supporting evidence for this inquiry.

Chapter Two: *The Literature Review* presents background knowledge in relation to this study. An extensive compilation of relevant literature is examined. It begins with a broad overview on the historical nature of biophysical and socio-critical discourses in physical education,

followed by a review of selected theories typically found in physical education assessment practice literature. Then tensions and dichotomies found within policy and practice of high stakes assessment in HPE are discussed. The final section of Chapter 2 focuses on the habitus, values and beliefs of teachers.

Chapter Three: *Research Design and Methods* begins with the main research questions for this inquiry and establishes the research approach I adopted. The paradigm and rationale, setting and participants, data collection, ethical considerations, data analyses, trustworthiness and limitations are all described in this chapter.

Chapter Four: *Findings and Analysis* presents the data collected and results of analysis relating to the three main research questions. Quantitative and qualitative data is presented in tables, quotes and paragraph form.

Chapter Five: *Discussion* compares and contrasts the findings of this study in the light of the academic research and theoretical insights introduced in the literature review. Important themes that emerged in the *Findings and Analysis* chapter are explored in more detail in relation to the three research questions.

Chapter Six: The *Conclusion* chapter summarises the key findings and the study is evaluated in light of its limitations. Implications for educational policy development, HPE teachers, senior secondary HPE teachers, pre-service teacher educators and research are all considered and recommendations are made for further research.

Chapter 2: Literature Review

2.1 Introduction

This literature review investigates the existing knowledge relating to socio-critical discourses in assessment of senior physical education. In doing so, it provides context and background for the research presented in this thesis. The review of the literature is presented in sections as follows:

The first section of this chapter identifies and describes the historical nature of biophysical and socio-critical discourses in physical education. This is followed by an analysis of published research and scholarly discussion on biophysical and socio-critical discourses in physical education, thereby providing a background to the contentious nature of socio-critical discourses in assessment of senior physical education.

The second section delves deeper into the topic of curriculum, assessment and pedagogy. Relevant research is reviewed and discussed in relation to selected theories typically found in physical education assessment practice literature. Alignment of curriculum, assessment and pedagogy are prominent topics in academic publications and are also within the focus of this inquiry.

The third section considers tensions and dichotomies found within policy and practice of high stakes assessment in HPE. The discussion of tensions in HPE provides background for addressing the potential dichotomous thinking that can undermine assessment practice considered in this inquiry.

The final section of this chapter focuses on the habitus (Bourdieu, 1977), values and beliefs of teachers. While there is little published research that has explored secondary school physical education assessment practice in the New Zealand context, assessment practice in a broader context has been examined. The influence of teachers' habitus, values and beliefs on teaching and learning programming, and the assessment practice underpinning this, is explored. In turn, an understanding of the prospective influence of these issues on NCEA standard interpretation, selection and application in highly contested assessment practice is uncovered. Thus a meaningful context is provided within which the value and contribution of this research can be placed.

2.2   The Historical Nature of Biophysical and Socio-critical Discourses in Physical Education

Foucault (1990) suggests *discourses* embody meaning and social relationships and reflect power. He also suggests that words and concepts change their meaning within different discourses and are antagonistic towards each other, arising not from the language itself, but from institutional practices and power relations at play.

Before considering discourses in physical education, it is pertinent to reflect upon the socio-historical background of physical education in New Zealand. Early physical education was exclusively physical training involving military drill and discipline, as in other countries internationally (see for example Kirk 1997). Many scholars suggest a political agenda behind this type of training, this being the need for a disciplined workforce and army (Culpan, 2004, 2005; Kirk 1997). The next major shift in the history of the subject in New Zealand was the implementation of Sixth Form Certificate in 1975; involving a move towards the national examination of theoretical aspects of physical education based on a diluted version of material used in teacher training of physical education (Stothart, 1991). Theoretical aspects included anatomy, exercise physiology, biomechanics, and motor skill learning, and were seen as a way to legitimise physical education by creating a hierarchy of knowledge that prioritised theory over the practical. Foregrounding these theoretical aspects led to a body-mind dichotomy (Burrows, 2005; Culpan, 2005) and an ongoing tension between theory and practice in physical education. It is important to acknowledge that these issues and tensions are by no means unique to New Zealand, see for example (Green, 2005; Penney, Jones, Newhouse & Cambell, 2012; Thorburn 2006a, 2006b & 2007).

Development and implementation of *Health and Physical Education in the New Zealand Curriculum* (Ministry of Education (MoE), 1999) and *New Zealand Curriculum* (NZC) (MoE, 2007) prompted further shifts in New Zealand physical education. Although theory and practice remain the basis of the document, the shift towards an underpinning socio-critical pedagogy provided a basis for change. The foregrounding of socio-critical pedagogy and a student centred approach is both implicit and explicit in the curriculum document and supporting documents (Burrows, 2005; Culpan & Bruce, 2007; Penney & Jess, 2004). Nonetheless, the intended implementation and application of a curriculum document underpinned by socio-critical pedagogy, compared to what occurrs in practice, is influenced

by the ongoing tension between biophysical and socio-critical discourses. On the whole there are two competing discourses that are in tension, these being (socio-critical) between visions of the future and (biophysical) the history we are tied to (Culpan, 2004 & 2005). The next section backgrounds several ideologies and concepts that typify each discourse and provides examples of their potential influence in physical education.

2.3 Biophysical Discourses

Biophysical discourses view 'man as a machine' to be trained for economic productivity (Charles, 1979). Theoretical aspects of physical education that privilege empirical-analytical sciences and are seen as 'technocratic' are positioned within these discourses (McKay et al, 1990). McKay et al (1990) suggest that technocratic physical education is underpinned by professional values and practices reflecting a 'scientised' approach to teaching and learning.

The scientisation of physical education is not limited to the disciplinary knowledge bases that are seen as central to physical education. Equally important to proponents of scientisation is the mechanistic nature of the treatment of the body physically. For instance, teaching contexts can include fitness regimes and games where dominant ideologies are transmitted such as: individualism; competition; performance; elitism and sexism (Collins & Waddington, 2000; Culpan & Bruce, 2007; McKay et al, 1990; Tinning, 1990).

Tinning (1990) has suggested that individualism involves 'meritocracy' with a focus on the individual and winning being a major influence in physical education. In addition, he proposes that 'healthism', which blames the individual for ill health and does not consider social, environmental and other factors, is transmitted within these discourses. Kirk and Colquhoun (1989) also warn that history was repeating itself, as the renewed focus on health matters at a government level pressures physical education once more to reinforce healthism. Drawing on a study of daily physical education in Queensland, Kirk and Colquhoun (1989) highlighted that the assumption 'exercise=fitness=health' has influenced a return to treatment of the body as a machine. Correspondingly, the 'apparent' obesity epidemic and the push for physical activity internationally and indeed in New Zealand, is another agenda that enables healthism within physical education at both macro (government policy and curriculum development) and micro (school and departmental) levels (Gard, 2003; Gard & Wright 2005). Gard (2003) considers that the danger is not physical activity, rather the concern is the prioritisation of these agendas over the educative value of physical education.

In the specific context of senior physical education there is a danger that biophysical discourses are engaged with as a way of legitimising physical education (Thorburn, 2007; Thorburn & Collins 2003), thereby undermining holistic visions of teaching and learning with a focus "in", "through" and "about" movement (Arnold, 1979; Brown, 2012; Brown & Penney 2012). When cultures of "performativity" (Hay, 2008) are in place, 'high stakes' senior assessment draws easily on biophysical discourses, a point reaffirmed by Green (2005) in looking at examination physical education. Hay (2008) also puts forward the influence of an educator's "habitus" with which discourses are engaged.

2.4 Socio-critical Discourses

Proponents of socio-critical discourses have foregrounded critical pedagogy (Culpan & Bruce, 2007; Gillespie & Culpan, 2000; Ross, 2001; Sparkes, 1996; Tinning, 2002). In general education, advocates of critical pedagogy are committed to ongoing reflection and action, as a process for creating change in classroom structures and practices that perpetuate undemocratic life. Furthermore, proponents attempt to develop a culture of schooling that supports empowerment of culturally marginalised and economically disenfranchised students (Baltodano, Darder & Torres, 2003).

Critical pedagogy involves questioning assumptions of power, inequalities, and the relationship between power and knowledge. In addition, by acknowledging these inequalities, critical pedagogy aims to empower individuals and groups to take social action for change. Consequently, emancipation and social justice are major goals of critical pedagogues (Culpan & Bruce, 2007; Friere, 1972; McLaren, 2007).

More specifically in physical education, within a variety of physical activity and sporting contexts, critical pedagogy and critical discourses question existing social structures together with issues of power, what is valued as commonsense, and ideologies of individualism, healthism and other ideologies promoted within biophysical discourses. On the other hand, these discourses advocate for physical education to: be student centred; serve all, not just the dominant (skilled, coordinated); serve the oppressed (unskilled, less able); and consider student voice (Burrows, 2005; Culpan & Bruce, 2007; Macdonald, 2002; Penney & Chandler 2000).

Socio-critical discourses privilege the educative focus of physical education. When the contexts of sport and physical activity are valued the educative focus changes, which is in contrast to biophysical discourses. Shifts occur from: performance to participation (Tinning, 1997); competition to cooperation (Leah & Capel, 2000); commonsense to critical (Culpan & Bruce, 2007; Wright, Macdonald & Burrows 2004); and individualism towards accepting diversity, tolerance and inclusiveness (Macdonald, 2002).

While Macdonald (2002) is a proponent of critical pedagogy, she questions when aiming for social justice, empowerment and consideration of student voice, whether it is just rhetoric or whether we can make a difference to the individual in practice. Many physical education commentators have argued for the importance of critical pedagogy in theory and practice (Culpan & Bruce, 2007; Gillespie & Culpan, 2000; Ross, 2001; Sparkes, 1996; Tinning, 2002).

Internationally in senior secondary physical education there has been a shift towards more holistic physical education drawing on Arnold (1979) and the focus of learning 'in', 'through' and 'about' movement (Brown & Penney, 2012; Penney and Hay, 2008, Thorburn, 2007). Intended outcomes of more holistic teaching and learning programmes draw on and engage with socio-critical discourses.

In their study of senior physical education in Victoria, Brown and Penney (2012) acknowledge the difficulty of achieving 'Arnoldian' visions of movement in practice. Brown and Penney (2012) also highlight the importance of ongoing professional learning in achieving a more holistic programme in practice. In the same manner Penney and Hay (2008) challenge governments and educators to shift socio-critical pedagogy 'rhetoric' into practice. Penney and Hay (2008) highlight the contentious nature of high stakes assessment in physical education and the potential to not challenge the status quo. In their critical analysis of course developments in Queensland and Western Australia, Penney and Hay (2008) highlight the possible 'slippage' from intended to actual outcomes in teaching and learning and assessment practice.

In the context of senior secondary physical education in New Zealand a shift has occurred towards a socio-critical pedagogy. Gillespie and McBain (2011) highlight that while a philosophical shift has occurred, the practicalities of implementation are more difficult.

Gillespie and McBain (2011) specifically focus on the difficulty of implementing meaningful teaching and learning programmes underpinned by socio-critical pedagogy in a practical pedagogic perspective. A way forward and support for physical educators using a 'Critical Analysis Process Tool' is presented. The tool scaffolds thinking and empowers educators to put socio-critical pedagogy into practice. Gillespie and McBain (2011) also acknowledge the need for further development of support material to ensure that socio-critical pedagogy can be put into practice.

Gillespie and McBain (2014) revisit their Critical Analysis Process and advocate for socio-critical pedagogy to be embedded across teaching and learning programmes, making it clear this should not just be for the sake of assessment at the high stakes level. They encourage ongoing critical action in, through and about movement across all levels of learning. In the same manner, Bowes (2010a) warns of the possible compartmentalisation of knowledge into small chunks, acknowledging the strong driver assessment can be in compartmentalisation. Furthermore, Bowes (2010b) warns of the privileging of physical education "through" and "about" movement over the "in" that can occur in both teaching and learning and assessment.

The literature clearly shows the shift towards a socio-critical pedagogy in senior secondary physical education (Brown & Penney, 2012; Penney & Hay, 2008; Gillespie & McBain, 2011 & 2014). All of the forementioned commentators highlight the limitations and gaps in the shift from theory to practice. The shift to a more holistic physical education, underpinned by socio-critical pedagogy, requires careful alignment of curriculum, assessment and pedagogy.

2.5 Curriculum, Assessment and Pedagogy

Curriculum, assessment and pedagogy can be considered as 'vehicles' for transmission of competing socio-critical and biophysical discourses. Pedagogical practice and discourses involved are now discussed within the contexts of the curriculum, assessment and pedagogy. International literature highlights that in the search for 'authentic assessment', curriculum, assessment and pedagogy should be integrated (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & Macdonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney *et al,* 2009). In addition, there is a complex dynamic between assessment frameworks, HPE curriculum and pedagogy. Whilst the next sub-sections consider the three separately to highlight different research, the three are highly inter-related.

2.5.1 Curriculum

Tensions between competing discourses are prominent within the development and implementation of physical education curriculum documents internationally. This section considers curriculum development in England, Wales and New Zealand to highlight different curriculum direction that can occur, depending on the dominant discourse underpinning the curriculum development process.

Arguably one of the most vivid illustrations of the political and contested nature of curriculum development and privileging of specific discourses, is Evans and Penney's (1995) analysis of the interactions between members of the group involved in developing the National Curriculum Physical Education (NCPE) for schools in England and Wales. The analysis of power and relations in the process was based on semi-structured interviews with individual group members. The politics involved were clear from the outset, with a panel of thirteen including only two physical education specialists. Other members of the group included a Headmaster, Deputy Principals, elite athletes, businessmen, the Secretary of State for Education, the Minster of Sport and three professors from other subject areas. Outside agencies involved highlighted the concern for the 'deprofessionalisation' of physical educators in the highly political environment of curriculum development. In this case the analysis of the process showed major sway from those outside the physical education profession. Engagement with biophysical discourses was reflected in both the interview process (which highlighted aspects of coercion) and in the resultant curriculum (involving team games and attitudes of competition).

Amidst the continued dominance of these discourses in the NCPE particularly, but also physical education internationally, Penney and Chandler (2000) called for debate on what the future of physical education might be. They proposed development of a curriculum with critical pedagogy in mind, with calls for a negotiated curriculum that considers social justice, student voice, individualised teaching, and a student-centred approach. Brooker and Macdonald (1999) highlighted difficulties in achieving a negotiated curriculum that values student voice. This leads to questions such as: how do you make explicit, generic outcomes that allow for student voice? Have we actually listened to student voices to hear their motivations and their perceived outcomes? What is relevant to 21st century learners?

Within the context of senior secondary physical education in Australia, a number of curriculum developments have endeavoured to engage with some of these challenges and there has been a shift towards socio-critical pedagogy (Brown & Penney, 2012; Penney & Hay, 2008). As previously mentioned there have been issues around the slippage from policy to practice with tensions between different discourses evident in both the development and implementation of senior physical education curricula (Brown & Penney, 2012; Penney & Hay, 2008).

In the same manner the HPENZ curriculum explicitly engages with socio-critical discourses. One of the two principle writers of the HPENZ curriculum, Ian Culpan, is a self proclaimed critical pedagogue who has clearly articulated how socio-critical discourses underpin the curriculum document. He is also explicit in his opposition to the outcomes of such a dominance of biophysical discourses (Culpan, 2004, 2005, 2009; Culpan & Bruce, 2007; Gillespie & Culpan, 2000).

Four underlying concepts influence the HPENZ curriculum document: wellbeing/hauora; health promotion; the socio-ecological perspective; attitudes and values. In summary, underlying concepts explicitly reflect aspects including rights and responsibilities, social justice, and taking action. Socio-critical aspects are not simply underlying considerations, they are represented across the entire document, including within Achievement Objectives [5] (AOs). A clear example of this is AO4 (Level 6) Strand B which requires students to "Demonstrate understanding and affirmation of people's diverse social and cultural needs and practices when participating in physical activity" (HPENZ, 1999, p25). Many commentators highlight that these are intended outcomes and if a practitioner engages solely with biophysical discourses, the intent may be lost. The actual outcomes and learning may be very different from intended learning, reinforcing once more the importance of practice (Brown & Penney, 2012; Culpan & Bruce, 2007; Gillespie & Culpan, 2000; Gillespie & McBain 2011 & 2014; Penney & Hay, 2008; Ross, 2001; Sparkes, 1996; Tinning, 2002).

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[5] The achievement objectives found in the New Zealand Curriculum set out selected learning processes, knowledge, and skills relative to eight levels of learning. These desirable levels of knowledge, understanding, and skills represent progress towards broader outcomes that ultimately amount to deeper learning. When designing and reviewing their curriculum, schools choose achievement objectives from each area to fit the learning needs of their students (Ministry of Education, 2007).

The major contrast in the development of the curriculum document of HPENZ and international curricula is who has been involved in the development and what discourses and agendas they bring with them. While the intended outcomes of the HPENZ are considered in theory (Culpan, 2004, 2005 & 2009; Culpan & Bruce, 2007; Gillespie and Culpan, 2000; Gillespie & McBain, 2011 & 2014), research into actual implementation is limited. Until more concrete evidence of intended and actual learning outcomes is found, the theory involved in the document could be perceived as rhetoric. The NCEA assessment framework aligns with NZC (MoE, 2007). NCEA Levels 1-3, as previously mentioned, is the context that this research is based within. For this reason, the following section directs attention to literature involving assessment in senior secondary physical education.

2.5.2 Assessment

Arguably nowhere in physical education are the tensions between biophysical and socio-critical discourses more obvious than in senior secondary school assessment. Legitimisation of the subject through assessment is highlighted by a tendency to revert to biophysical aspects such as: measurement, performance, and scientised aspects of theory. Interestingly, a body-mind dichotomy often pervades decisions, challenging the search for 'authentic' assessment in physical education (Bowes, 2010a & 2010b; Bowes & Bruce 2011; Penney et al, 2009; Thorburn, 2007; Thorburn & Collins, 2003, 2006a, 2006b).

Higher Still Physical Education (HSPE) in Scotland (Thorburn & Collins 2003) and literature involving NCEA (Bowes, 2010a & 2010b, Cosgriff & Gillespie, 2011; Gillespie and McBain, 2011 & 2014; Penney & Cowie, 2014) show goals of, and limitations to, achieving authentic assessment highlighting the discourses that underpin them.

Thorburn and Collins (2003) completed a case study on an integrated curriculum and assessment model in the context of HSPE. Semi-structured and small group interviews were undertaken with teachers and students from 10 schools involved in HSPE 1999-2000. The selection process was based on overall achievement results and involved a varied selection of schools demographically. The results highlighted issues between policy and practice, revealing key differences between teachers' pedagogy and assessment practice. Three types of school emerged, these types were: low attaining 'trying' schools, high attaining 'rote' schools, and high attaining 'succeeding' schools. Attainment was reflected by student results, while 'trying, rote and succeeding' was judged qualitatively through their pedagogical

practice (Thorburn, 2007). Authentic assessment in this context was based on integration of theory and practical through assessment, with an equal allocation of each aspect (50:50). In summary the findings showed the interrelatedness of teacher pedagogy and student engagement in learning when attempting to realise successful student achievement. The limitation of this research was the prioritisation of biophysical discourses, with performance, and analysis of this as major focuses. Furthermore, the research also involves an assessment system with little recognition of socio-critical discourses. In addition a norm-referenced system was in action rather that the standards-based system of NCEA.

In contrast to HSPE, NCEA has followed the shift in western education towards standards-based assessments (Hay & Macdonald, 2008; Wyatt Smith & Castleton, 2005). Standards-based assessment involves the process of making judgements on the quality of student work against pre-prescribed criteria and standards, with no requirement for ranking or norms (Sadler, 1987; Hay & Macdonald, 2008). NCEA has been developed to align with the NZC (MoE, 2007). NCEA applies both internal and external assessment across Key Learning Areas of the curriculum. In the context of senior secondary physical education all standards are internally assessed. Internal assessment enables the potential for contexts, and content of teaching and learning programmes to be student centred and relevant to the learners. The nature of internal assessment also allows for the intent of the NZC (MoE, 2007) to be enacted in, through and about movement.

In the context of New Zealand senior secondary physical education many academics have highlighted the gap between the potential of NCEA and the actual practice (Bowes, 2010a & 2010b, Cosgriff & Gillespie, 2011; Gillespie and McBain, 2011 & 2014; Penney & Cowie, 2014). The theory and practice of standards-based assessment within the context of NCEA is influenced not only by the explicit use of competing discourses within the criteria, but also by the standard selection and prioritisation and the pedagogical practice that is utilised in application. The title of the Level 3 standard 3.5 (90743, version 2) is explicitly socio-critical: "*Examine a current physical activity event, trend or issue impacting on New Zealand society*" (NZQA, 2005). In contrast the Level 3 standard 3.3 (90741, version 2) is explicitly biophysical: "*Appraise performance and review a programme for performance improvement for self or others*" (NZQA, 2005). The intent of the standards clearly differs and therefore it can be assumed there is consideration of competing discourses within NCEA Achievement standards. The quandary is which standards are being prioritised (selected) and why? Even

though socio-critical aspects are represented in the NCEA AS Level 1-3 for physical education, these standards may not be selected. Reasons that sit behind decisions about the selection (and non-selection) of standards can include teachers' own schooling experience, their teacher education experience, teachers' perceived strengths and knowledge, their pedagogical beliefs, and resourcing issues (Kirk, 1986; Macdonald et al, 2002; Kirk et al, 1997).

When socio-critical standards are selected, the pedagogical practice of the teacher can influence the distance between the intended and actual student learning outcomes. To illustrate this, in standard 90743 (NZQA, 2005) the achievement criteria to attain 'Achieved with Excellence' [6] requires critical examination of the event, trend or issue. When a teacher misconstrues the criteria then alternative criteria and standards arise in the mind of the teacher (Hay, 2006; Hay & Macdonald, 2008). In the Te Kete Ipurangi [7], for standard 90743 the commonly used exemplar is "obesity as an issue". The intent in utilising this exemplar as the chosen assessment task is that teaching and learning programmes will enable students to be critical of stereotypes, ideologies, measurement tools and agendas of interested parties including the fitness industry, diet industry, government and media. When a teacher misinterprets what 'critical' means and is influenced by biophysical discourses, then the teaching and learning programme can reflect (and therefore reinforce) opposing ideologies such as healthism (Gillespie & Culpan, 2000). In this context, authentic assessment would meet the socio-critical intent of the standard and be underpinned by critical pedagogy. However, in the context of the standard being misinterpreted the authenticity of assessment and judgements made are negated and influenced by a teacher's own habitus, beliefs, value orientation, language and pedagogical practice (Hay, 2006 & 2008, Gillespie, 2003 & 2011).

In summary, proponents of HSPE (Thorburn, 2007; Thorburn & Collins, 2003, 2006a, 2006b), HPE in senior secondary in Australia (Brown & Penney, 2012; Penney & Hay 2008) and NCEA (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Cosgriff & Gillespie, 2011; Gilespie & McBain 2011 & 2014; Penney & Cowie, 2014) all advocate for authentic assessment. Intended and actual student learning resulting from teaching and learning

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[6] Achievement Standards can be gained as Achieved, Achieved with Merit, Achieved with Excellence.
[7] TKI is a bilingual portal-plus web community, owned by the New Zealand Ministry of Education, which provides educational material for teachers, school managers and principals.

programmes are dependent on the discourses and pedagogy that underpin the assessment system and practice (Penney et al, 2009).

2.5.3 Pedagogy

Literature highlights the importance of teachers' understanding of the tensions, knowledge structures, and power relations at play between curriculum, assessment and pedagogy (Gard et al, 2012; Penney et al, 2009; Penney, 2012; Sullivan 2013). Penney (2012) draws on the work of Bernstein (1990, 1996, 2000) and considers the tensions and spaces between these three. Without consideration of all three (curriculum, assessment and pedagogy) there is the potential for high stakes assessment to encourage teachers to over-value assessment. When this over-valuing is in the context of misinterpretation, this can have a major impact on the difference between intended and actual learning outcomes.

Pedagogical practice or 'pedagogical action' (Penney, 2012) is a limitless area that is difficult to define. Pedagogical action considers the dynamic between what we teach, why we teach it, how we teach it and what influences this. This ensures consideration of what we do creatively with the 'spaces for action' (Penney, 2012) between curriculum, assessment and pedagogy. Discourses teachers engage with have a strong influence on practice. For instance, socio-critical discourses enable democratic and socially-just practices related to curriculum, assessment and pedagogy (Hay and Penney 2013, O'Sullivan, 2013). Physical education practice in this case would involve a negotiated curriculum that considers social justice, student voice, individualised teaching, and a student-centred approach (Brooker & Macdonald, 1999; Gard et al, 2012; Hastie et al, 2012; Penney & Chandler, 2000). In contrast, engagement with biophysical discourses enables a 'scientised', un-critical practices such as individualism and elitism to occur (Collins & Waddington, 2000; Culpan & Bruce, 2007; McKay et al, 1990; Tinning, 1990). Misinterpretation of the intent of standards can lead to 'un-critical practices', which put challenge to the potential of holistically learning "in, through and about movement" (Arnold, 1979; Culpan, 2004; Brown, 2012).

The following sections will consider potential influences arising in literature regarding the nature of the alignment of curriculum, assessment and pedagogy, beyond the socio-critical and biophysical discourses.

2.6 Tensions and Dichotomies

In endeavours to align curriculum, assessment and pedagogy in practice, both tensions and dichotomous thinking can limit the potential of 'authentic assessment' (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & Macdonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009). Dichotomies involve the division of discourses, knowledge bases, or "ways of learning" into two mutually exclusive, opposed, or contradictory groups.

A variety of potential tensions and dichotomies have been highlighted in literature involving assessment practice. These may include, but are not limited to, theoretical and practical learning and body-mind dichotomy (Penney et al, 2009; Sullivan 2013, Thorburn, 2007; Thorburn & Collins 2003, 2006a, 2006b). Dichotomous thinking involving a body-mind split, where the mind and the body are viewed entities that function completely separately, can give rise to a further dichotomy between theoretical teaching and learning and practical teaching and learning. In turn, this can potentially lead to learning soley taught in either a practical or theoretical context.

Internationally the tension between theoretical and practical physical education has been higlighted as a major issue (Brown & Penney, 2012; Cliff, 2007; Cliff, 2012; Hay, 2008; Penney & Hay, 2008; Thorburn, 2007; Thorburn & Collins 2003, 2006a, 2006b). Within the New Zealand context, as mentioned previously, Bowes (2010b) acknowledges the privileging of learning and assessment in physical education to be "through" and "about" movement rather than "in" a practical context. Bowes (2010a) also highlights the potential for compartmentalised learning with small chunks of knowledge where assessment is the driver, thereby supporting the potential for dichotomies to play out in practice.

Tensions between progressive discourses within the physical education curriculum and contradictory discourses and requirements relating specifically to 'high stakes assessment' in senior secondary education have been identified internationally (Thorburn, 2007). In contrast to international literature, within the context of NCEA Level 1-3 there has been a shift to the progressive discourse within standards (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014; Penney & Jess, 2004, Penney et al, 2009). However, studies are lacking into the intended and actual learning outcomes arising from this shift, in the New Zealand literature and research.

Additional dichotomies occur between biophysical and socio-critical discourse enabling opposing practice such as: performance and participation (Tinning, 1997); competition and cooperation (Leah & Capel, 2000); commonsense and critical (Culpan & Bruce, 2007; Wright et al, 2004); and individualism and accepting diversity, tolerance and inclusiveness (Macdonald, 2002). Engagement with dichotomous thinking can undermine holistic learning where HPE is learnt "in, through and about movement" (Arnold, 1979; Culpan, 2004; Brown, 2012), free from dichotomous thinking. In several instances development of senior secondary curricula internationally has sought to align with Arnold's framework and has grappled with the ways in which this can be reflected in assessment (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Culpan, 2004; Brown, 2012; Brown & Penney, 2012; Penney & Hay, 2008; Thorburn, 2007; Thorburn & Collins 2003, 2006a, 2006b).

2.7 Habitus, Values and Beliefs

Literature indicates that practice in schools is influenced by a teacher's own habitus (Bourdieu, 1977), beliefs and value orientation (Ennis, 1992; Ennis & Chen, 1995; Ennis, Ross & Chen, 1992). Bourdieu (1977) suggests that habitus is expressed through ways of moving, speaking, thinking and feeling. In turn, these also have a strong impact on interactions with curriculum, assessment and pedagogy and the ways in which these are aligned (Hay 2006 & 2008; Gillespie, 2003 & 2011). Differences in value orientation (Ennis, 1992; Ennis & Chen, 1995; Ennis, Ross & Chen, 1992) are particularly important in the context of a curriculum that has an explicit socio-critical orientation (Gillespie, 2011). More specifically, in the teaching and learning programmes experienced by students, what is privileged? Within these programmes and the supporting assessment the actual learning outcomes of these programmes are strongly affected by these different value orientations (Gillespie, 2003 & 2011). For teachers who perceive the curriculum and its underlying philosophy to be quite different to their beliefs and practices, a philosophical shift may be required to allow for intended outcomes to better align with actual outcomes (Gillespie, 2011).

Teachers must be aware of the power relations involved in decision-making in the alignment of curriculum, assessment and pedagogy (Penney, 2012; Penney et al, 2009). Tensions within and of these power relations are highly influenced by value orientations (Gillespie, 2011) and this in turn can limit the potential of physical education for learners.

2.8 Conclusion

The critical analysis of academic literature in this chapter reveals that a range of understandings exists in relation to the development of curriculum and assessment in physical education, whilst acknowledging this is a highly political process influenced by competing discourses and pedagogical beliefs (Evans & Penney, 1995; Culpan & Bruce 2007). International literature clearly shows that curriculum, assessment and pedagogy need to be aligned to achieve 'authentic assessment' (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & MacDonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009). Differences of opinion on what constitutes authentic assessment arise from the tension between biophysical and socio-critical discourses within physical education. Shifts to foreground socio-critical discourses are both explicit and implicit in the context of international HPE (Brown & Penney, 2012; Penney & Hay, 2008; Cliff, 2007; Cliff, 2012, Thorburn, 2007) as well as in the context of HPE within NZC (MoE, 2007) and NCEA Level 1-3 (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011; 2014; Penney & Jess, 2004, Penney *et al,* 2009).

In context of NCEA there is the potential for teaching and learning programmes to be holistic and enact socio-critical pedagogy in practice. However, there are factors that influence the difference between intended and actual outcomes. Limiting factors include dichotomies at play in senior secondary physical education, including body and mind, theoretical knowledge and practical knowledge, and socio-critical discourses and biophysical discourses (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011; Gillespie & McBain 2014; Penney & Jess, 2004, Penney et al, 2009). In addition a teacher's own habitus, beliefs, value orientation, language and pedagogical practice have a strong influence on interactions with and alignment of curriculum, assessment and pedagogy (Hay, 2006 & 2008, Gillespie, 2003 & 2011).

In New Zealand currently there is an absence of research that addresses assessment choices in senior physical education including standard selection and the prioritisation of biophysical and socio-critical standards. When socio-critical standards are selected, research should consider how these are interpreted and applied by teachers. There is also a need to investigate the gap between intended and actual outcomes in the implementation of the standards. This thesis research seeks to address these gaps. The following chapter presents research

methodology and design, and outlines the research questions that will form the basis for the study presented in this thesis.

Chapter 3: Research Design and Methods

3.1 Introduction

This chapter outlines and discusses the research design and methods used for this qualitative inquiry. Firstly, national data was used to inform an in-depth exploratory comparative case study involving two schools. The exploratory study was focused on researching Achievement Standards, their interpretation, selection and assessment practice.

The aim of the inquiry was to explore and gain an understanding of the extent and nature of the use of socio-critical standards in NCEA Level 1-3 physical education by answering the following research questions:

1. What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?

2. How are teachers interpreting and applying socio-critical standards in senior physical education?

3. What are the intended student outcomes of implementation of the socio-critical standards?

Initially I recognised the value of exploring actual student outcomes but doing so was seen as beyond scope of this study.

To fulfil this aim, two phases of research were conducted, with data collected from a range of sources. In phase one of the research, the main source of data on national standard selection in NCEA Level 1-3 physical education was collected from NZQA. For phase two the comparative case study data was collected from four teachers at two schools arising from the data analysed in phase one, through a series of interviews. Semi-structured teacher interviews provided data about factors influencing standard selection, interpretation and application of socio-critical standards. Interviews provided data from which the researcher could interpret, analyse and seek to answer the research questions.

The purpose of this chapter is to outline the process of collecting, collating and analysing the data and the rationale behind methodological decisions. The following sections explain the paradigm and rationale, setting and participants, data collection, ethical considerations, data analyses, trustworthiness (evaluation) and limitations of the research undertaken.

3.2 Paradigm and Rationale

Selecting the paradigm of interpretivism

The ontology, epistemology and methodology of social research combine within 'paradigms' that guide the research process (Sarantakos, 2005; Guba & Lincoln, 1994). 'Paradigm' is a term that Punch (2005) suggests is a "set of assumptions about the social world" (p.27). Three major paradigms are linked to social science; 'positivism', 'interpretive social science' and 'critical social science'. Each paradigm represents different ways of looking at the world including ways to observe, measure and understand social reality (Neuman, 2003). The nature of this research project was to 'investigate' and to make a difference, by giving insight into meaningful social action. To illustrate this, the pre-empirical stage of this project highlighted the belief that research would be worthwhile and relevant with the potential to inform reflection and action within the physical education sector. Therefore, the project sat predominantly in the interpretive paradigm, with elements of the critical paradigm also reflected. The research considered pedagogical beliefs and the potential influence of these, alongside the nature of competing discourses (biophysical and socio-critical). Furthermore, this research will potentially lead to reflection and action by educationalists. Finally, as the researcher I also acknowledge that I am influenced by critical pedagogy as stated in the pre-empirical stage of research.

Creswell (2003) considers three possible approaches to research: qualitative, quantitative, and mixed methods. Most researchers compare and contrast qualitative and quantitative, acknowledging these are not necessarily mutually exclusive and that research can involve a combination of the two (Creswell, 2003; Bryman, 2004; Punch, 2005; Sarantakos, 2005). In line with the paradigm and nature of the research questions, an overarching qualitative frame will be used within this project. Within this frame, both qualitative and quantitative data will be gathered. Characteristics identified by Bryman (2004) as indicative of qualitative were evident in this project:

- The research sought understanding of behaviour, values and beliefs within the context of NCEA Level 1-3 physical education 2006-2010.
- The researcher was concerned with small scale aspects of social reality involved in assessment practice.
- The research considered the meaning of action in assessment practice.

- The research was based in the natural setting of a physical education department within a school.

- Data involved words from a variety of sources and data collection methods, such as interviews and document analysis.

- The researcher had a close involvement with the people involved in the research, accentuated through the use of comparative case studies as the strategy being applied.

- The theory involved was emerging and dynamic. While in theory, aspects of the extent of use of socio-critical standards in physical education have been considered (Culpan, 2004, 2005, 2008; Culpan & Bruce, 2007; Penney & Hay, 2008; Thorburn, 2007), until more concrete evidence is found about the topic in practice, the theory could be perceived as rhetoric.

- The research involved an ongoing cyclical process that was developed over time, involving the interconnections between the actions of participants (teachers) and the social settings (physical education departments).

- The approach was semi-structured so that meanings and concepts emerged from the data.

- The nature of the strategy (comparative case studies) allowed for rich, deep data to be engendered.

Furthermore, the qualitative approach sat well within the interpretive social science and critical social science paradigms proposed (Bryman, 2004; Creswell, 2003; Punch 2005).

Selecting the research method

This research project employed a case study design. Punch (2005) considers case studies, ethnography, grounded theory and action research as qualitative strategies. The best fit for this research was considered to be the case study as social data can be gathered within the natural setting of a physical education department, which can be seen as a social unit as a whole (Best & Kahn, 2006).

With respect to the type of case study being applied, Stenhouse (as cited in Bassey, 1999) identifies four different styles of case study - ethnographic, evaluative, educational and action research. The specific style applied in this project was an educational case study, in which Stenhouse proposes that rather than developing social theory or evaluative judgements the intent was to gain an understanding of educational action. In addition, the research was a

comparative case study. Yin (1989) considers multiple or comparative case studies as following the same methodological framework as an individual case study, but providing the potential for more robust findings. The aim of this comparative study was to find contrast rather than to find replication in investigating socio-critical discourses in senior physical education in New Zealand.

Bassey (1999) puts forward a detailed list (p.58) explaining his conception of an educational case study as an empirical enquiry. Justification of the (collective) educational case study is proposed through application of the list as follows:

1. Firstly, the research was in a "localized boundary" of space and time, in this case NCEA Levels 1-3 2006-2010.

2. Secondly, the case study considered "interesting" aspects of educational activity, specifically assessment issues.

3. Thirdly, the case study was in its "natural context" (within departments) and with an ethical respect of the participants (outlined later in this section).

4. Fourthly, the case study is able to "inform policy makers and practitioners", informing issues and gaps between policy and practice.

5. Finally the data gathered allows the researcher to create a case that is "interesting", "significant", "plausible", "worthwhile" and "convincing".

3.3 Setting and Participants

The case study unit of analysis (setting)

Units of analysis set the boundaries for a study (Rohlfing, 2012; Yin 2003). This inquiry involved two schools showing patterns of selection/non-selection arising from the data of all schools in the region being targeted. For the comparative case study, one school selecting a relatively even mix of biophysical and socio-critical standards and one school clearly choosing not to select the targeted socio-critical standards were selected. In addition the research was in a "localized boundary" of space and time (Bassey, 1999), this being NCEA Levels 1-3, 2006-2010.

The schools

From phase one of this inquiry two schools clearly arose from the data, making it evident that a comparative case study should be adopted to investigate the extent and nature of the use of

socio-critical standards in NCEA Level 1-3 physical education. It was clear that a comparative case study should be adopted to ensure richness and depth of data. Presenting an opportunity to investigate what underpinned the standard selection in the two schools with distinctly different selection patterns. The study used purposive sampling (Punch, 2005; Bryman, 2004) in relation to the selection of case study schools. NZQA data (2006-2010) gathered in phase 1 of this research was used to inform selection of the case study schools. Data gathering and analysis in this phase was in regard to schools' selection of standards for NCEA Levels 1, 2 and 3 in physical education.

For the school-based research (phase 2) two schools were selected (School A and School B). School B had an established record of selecting socio-critical standards in physical education Levels 1-3, and School A had a record of not selecting socio-critical standards. Use of explicitly socio-critical standards was the basis for selection of the two schools. Through phase 1 data from assessment pathways for NCEA from 2006-2010: AS 90070; AS 90432; AS 90437; AS 90743 were analysed. The schools were selected via purposive sampling from the targeted region. This was for ease of access for the researcher.

School A was a high decile independent single-sex girls' school in the region targeted for research. The school did not select any of the socio-critical standards targeted in this research over the period of 2006-2010.

School B was a high decile co-educational school in the region targeted for research. The school selected all of the socio-critical standards targeted in this research over the period of 2006-2010.

Principal consent was gained from both schools for teacher participation in the study.

The participants

For phase two of the research, there were four participants. These comprised of the two Heads of Department (HOD hereafter), one from each of the schools selected for the comparative case study (School A and School B). Secondly, an additional relevant staff member from each physical education department was interviewed. The additional interviewee ensured coverage of teaching across all three levels of NCEA. In summary:

- All participants were female.

- Time teaching ranged from 8-32 years.

- All participants had taught in New Zealand and the United Kingdom (and one in Australia).

- School types taught in included co-educational state schools and independent girls' schools.

Data collection

Access and contact

The selection of participants for the school-based research (phase 2) arose from established records of selection/non-selection of socio-critical standards in physical education Levels 1-3. One school not selecting socio-critical standards was selected via purposive sampling from the targeted region. This was for ease of access for the researcher. The school had not utilized the following socio-critical standards for assessment towards NCEA from 2006-2010: AS 90070; AS 90432; AS 90437, AS 90743. As a contrast, a school selecting socio-critical standards was selected via purposive sampling from the targeted region. This was again for ease of access for the researcher. The school had utilized the following socio-critical standards for assessment towards NCEA from 2006-2010: AS 90070; AS 90432; AS 90437, AS 90743.

The first prospective participants for phase two of the inquiry (HODs and Principals) were contacted verbally and subsequently in writing (participant information sheets Appendices 1 and 3) and expectations of them were explained fully. Written consent was also obtained from participants (Appendix 2 and 4). The participants for the second part of phase 2 included an additional staff member from the physical education department who has additional responsibility for teaching all three levels of NCEA (1-3). A participant information sheet (Appendix 5) and consent form (Appendix 6) were used to gain written consent.

In addition, student work was planned to be selected via purposive sampling to gather evidence across two grades of achievement for NCEA i.e. Achieved and Achieved with Excellence. Participation of students was to be confined to documentary work. However, the

large amounts of data gathered from phase one and two of the inquiry made it apparent that student work would need to be explored in subsequent research.

Phase One: Baseline Data:

The main research question proposed was "What is the extent of use of socio-critical standards in NCEA Level 1- 3 physical education?" Therefore, phase one of the research required baseline data. Firstly, NCEA Level 1-3 Achievement Standards for physical education were gathered for document reading (Bassey, 1999). Reading of the Achievement Standards allowed for selection on explicitly socio-critical standards. Secondly, NZQA data on all schools enrolled nationally in NCEA Level 1-3 physical education 2006-2010 was gathered as archival records (Yin as cited in Best & Kahn 2006). 2006 was the first year where all three levels were applied in assessment procedures.

Phase Two: School Based Research:

As explained above, two schools - one school selecting and one school not selecting socio-critical standards - were chosen on the basis of phase one data for phase two of the research.

The data collection method in this phase was semi-structured, individual interviews (May, 2001) firstly with the two HODs. HODs were selected due to the 'assumed' role they have to play in standard selection, interpretation and application. May, (2001) proposes that semi-structured interviews allow the researcher to probe further, seeking clarification and elaboration on answers given. Creswell (2003) notes the advantages of interviews: usefulness when participants cannot be observed, participants can provide historical information, and allowing the researcher control over the questioning. Limitations include: indirect information through the lens of the participant, information is gathered in a designated place rather than the natural field setting, and the presence of the researcher may bias responses. Interviews were 45 – 60 minutes in length. The interviews were audio-recorded and transcribed in verbatim at a later date, (Bryman, 2004). See Appendix 7 for the HOD interview schedule.

In addition, the researcher kept a reflective diary during the research process (Creswell 2003) for reflections, insights and emerging ideas and concepts. The focus of the reflective diary was to capture these thoughts and insights at the time of interviewing, transcribing and data analysis. These were concise page summaries of key ideas and feelings conveyed by the

participants as well as surprising or unique aspects of the interview. Impressions of participants' characteristics as teachers and other points of interest were also noted. These have been used in the data analysis and triangulation process.

Following the interviews with HODs, individual semi-structured interviews were conducted with a second staff member from each physical education department involved in teaching the three levels of NCEA physical education. This second staff member was selected to enable deeper inquiry into factors influencing standard selection, interpretation and application involved in assessment practice. The staff interviews were 45- 60 minutes in length. The interviews were audio-recorded and transcribed verbatim at a later date; the interview schedule is provided in Appendix 8. The researcher kept a reflective diary during the research process (Creswell 2003) for reflections, insights and emerging ideas and concepts.

Transcription

All interviews were fully transcribed by the researcher. In doing so, a familiarity with the data was gained. The transcriptions were produced as Microsoft Word documents. In total, 4 teacher participant interviews were transcribed. Once complete, these were crosschecked by asking the teachers interviewed to read the transcriptions and confirm their accuracy.

3.5 Ethical Considerations

With regard to ethics involved in the project, ethics of educational research should be set out clearly (Snook, 2003). Snook (2003) proposes seven ethical considerations for educational research that underpinned this project:

1. The "point of the research" was educational development and to have a positive influence on educational outcomes pertaining to assessment practice in physical education.
2. "Informed consent" was gained in writing, with the research process clearly outlined in writing. The participants were given the opportunity to consent or decline to be involved, with the option of withdrawing up until their transcripts were verified. Written consent was obtained from Principals, HODs, teachers, and students on the applicable consent form for each participant (Appendix 2, 4 and 6). Permission to carry out the research was sought from the school principals, HODs, and teachers, for each school chosen by 'purposive sampling'. The prospective participants (Principals,

HODs, teachers) were contacted verbally and subsequently in writing (participant information sheets for each Appendix 1, 3 and 5) and expectations of them explained fully.

3. "Honesty and truthfulness" was adhered to at all times with no aspects of deceit.

4. "Conflict of Role" was outlined to the participants. The researcher's role of National Moderator for NZQA has a goal of achieving valid, fair and consistent assessment at a national level. This involves the moderation of assessment tasks and confirmation of assessor judgements on learner work against the National Standards. Furthermore, the role involves communication with the sector including clarification documents, newsletters, exemplar development, web communication, National Moderator reports, best practice workshops and conference presentations. As researcher, I declared my role as National Moderator for physical education, while ensuring anonymity and no misuse of data gathered. This is acknowledged in the participant information sheets (Appendix 1, 3 and 5). I verbally reaffirmed to participants that their participation had no implications for moderation and that all data remains entirely confidential. I also stated I would not use my NZQA email, address or phone in any communication associated with the research.[8] As the researcher I was also aware of "cultural sensitivity" including aspects such as the Treaty of Waitangi, gender, and socio-economic differences.

With respect to confidentiality, I needed to be responsible for confidentiality both during and after the research process. All non-identifying data (e.g. data sets and transcripts) used for publication will be securely kept for five years in order to allow for academic examination, challenge, or peer review.

Anonymity was assured by no use of real names or school names within the research project. The tapes, transcriptions and other research material will be destroyed after the five-year period, so that no misuse can occur by other researchers at a later date. As per the University's Ethical Conduct in Human Research and Related Activities Regulations 2008 all non-identifying data (e.g. data sets and transcripts) used for publication will be securely kept long enough to allow for academic examination, challenge, or peer review. Identifying data

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[8] At the time of completing this thesis, I am no longer in this role and have returned to a school setting.

such as consent forms and audio tapes will be securely stored consistent with agreements made under section 9(4)(a) of these regulations. Data storage will be with the Sports and Leisure Department on site at the University of Waikato. This is acknowledged in the participant information sheets (Appendix 1, 3 and 5).

3.6 Data Analysis

Thematic analysis

In this inquiry, the process of qualitative data analysis began with the reading and re-reading of the transcript data. It also involved listening to the audio recordings, trawling through the reflective diary, revisiting the qualitative responses provided by teachers of both schools selecting and not selecting socio-critical standards, until an understanding of the entire data set was gained.

Miles and Huberman's (1994) data management and analysis methods were adopted for this research project. After data collection, their model moves to data analysis involving three steps: data display; data reduction; and conclusion drawing and verification. The model proposed was interactive and did not move in a linear fashion. Miles and Huberman (1994) propose that data display involves organizing and thinking about meanings arising from the interviews, document reading and focus groups. Data reduction involved making the data user friendly though methods such as memoing and coding, while still being aware of losing the context. Conclusion drawing and verification involved clustering, comparison and contrast, development of themes, triangulation, looking for negative cases and cross case analysis. The process of data display, handling, managing and coding the extensive amounts of data was supported through the use of excel spreadsheets. These were used to connect selected words, phrases, sentences and whole paragraphs from transcripts to codes. Using a line-by-line approach the data was openly coded (Charmaz, 2003) to identify the substantive codes emerging in the data (Glaser, with assistance of Holton, 2004). The following example demonstrates how the data coding process occurred:

> Text: "…*we can work to the strengths of the teachers so you know the assessment is still the same, but how a class may get there depending on the students in their groups could be different pathways to the end goal really, so we're trying to get you know students to be lifelong you know, participators of physical activity, not something they just do because it's compulsory.*" Transcription 1 page 8.

Coding Categories: Own Philosophy, Teacher Passion/Interest, Pathways, Programming considerations: Lifelong.

Following this initial phase of the analysis, a more focused coding occurred, with new codes being developed and other codes redeveloped as new categories emerged and others merged. This new more focused coding meant that some sections of the text were coded several times. In addition to the open coding process, analytic memos (Miles & Huberman, 1994) were used to record thoughts and ideas about the coding process and the data. Memoing combined with the coded data provided the basis for early interpretations about the emerging themes and insights that the data was revealing. For example:

> Text: "*…because I guess what differentiates PE from the other subjects is the practical context and so,---what sits very high in the priorities is that you try and retain that practical context otherwise why are you actually teaching PE?"* Transcription 2, p13.

Coding Category: TTPEPE (Teacher training, personal experience physical education), Programming Consideration: Practical vs Non Practical, Assessment in Action: Practical vs Non Practical. [The focus arising on prioritising the practical in physical education was acknowledged as arising from the teacher's own experience. The assumption that socio-critical pathways were non-practical also arose.]

Throughout the process themes emerged in relation to research questions. The qualitative data from the interviews was loaded into an Excel spreadsheet. The memoing was developed from the collation of data in the spreadsheet.

3.7 Evaluation and Trustworthiness

Validity and reliability in the qualitative approach differs from the quantitative. Lincoln and Guba (as cited in Bryman, 2004) propose trustworthiness and authenticity as alternatives to validity and reliability of quantitative approaches. They outline four criteria for trustworthiness:

1. Credibility
2. Transferability
3. Dependability
4. Confirmability

Firstly, credibility was gained through processes such as respondent validation or member checking (Creswell, 2003) and triangulation. Therefore, this research checked with the participants that findings and conclusions were accurate. In addition, triangulation (Bryman, 2004; Creswell 2003) occured through multiple data collection methods including document reading, semi-structured interviews, and diary keeping. Secondly, transferability was developed through rich, thick description (Bryman, 2004; Creswell 2003). Thirdly, dependability was addressed by adopting an auditing process that entailed keeping complete records at all phases of the research process. Finally, confirmability occured as the researcher ensured an external auditor and peer debriefing (Creswell, 2003) were used. Bias was considered (Creswell, 2003) by the researcher in an open and honest way through the use of the diary and at all stages of the research.

Regarding transparency, the project has outlined clearly how participants have been selected. Rather than replication, which was not a goal of the research, the focus was on being context specific; transferability was the alternative goal as previously mentioned. Finally, in regard to generalisation, Guba and Lincoln (2000) propose 'fittingness' replaces generalisation. They suggest that the degree to which one context or situation can match another is of relevance. Therefore, details of 'fittingness' can be highlighted. There was no intention of simple or broad generalisability from the case study. However, the findings are useful to a variety of others. Potential areas to inform include: those involved in educational policy development and implementation, researchers, HPE teachers and departments, pre-service teacher educator programmes, and senior secondary educators as outlined in the implications within the conclusion section

3.8 Conclusion

This chapter has outlined the research design and rationale behind the qualitative exploratory case study. The interpretive social science and critical social science research paradigms underpin the research, with quantitative and qualitative data being used within the overarching qualitative approach being applied. The strategy was a (collective) educational, comparative case study. Research participants and settings involved two HODs selected through 'purposive sampling' and a second member from each department; School B represented those selecting and School A not selecting the proposed socio-critical standards. Data collection methods included document reading, archival records, semi-structured interviews (individual), and a reflective diary. Data analysis was based on Miles and

Huberman's (1994) data management and analysis methods. Finally, ethical considerations and trustworthiness were acknowledged within the research proposal. The purpose of this chapter was to describe in detail the research steps undertaken and to help place the research into a context that allows the reader to fully understand the following *Findings* and *Discussion* chapters.

Chapter 4: Findings and Analysis

Introduction

This chapter presents a synthesis of the data obtained from phase 1 of the study. The chapter therefore reports findings arising from analysis of NCEA Achievement Standards, data relating to NZQA standard selection. In addition the chapter reports on phase 2, which comprised of teacher interviews with the HOD and an additional teacher from each of the schools arising from the data in phase 1 of the research. Examples of data are provided along with the presentation of results from the thematic analysis undertaken to address the research questions. The data are drawn from 4 hours of interview recordings, 66 pages of interview transcriptions and the researcher's journal notes.

NCEA Achievement Standards

The first stage of phase one involved reading all NCEA Achievement Standards from Level 1-3 for physical education. The standards addressed in data collection and analysis were the versions that applied during the period of time targeted in this phase of the research. As reported below, analysis of patterns of standard selection addressed the period 2006-2010. Subsequently the standards have been reviewed and modified; the socio-critical nature of these standards has been retained. Data for 2011 and 2012 were not included due to the alignment process and changes to the standards that were occurring.

Firstly, NCEA Achievement Standards were examined to ascertain which standards were explicit in focusing on socio-critical discourses. This process served to identify the Achievement Standards to be targeted in the data analysis to follow. Table 1 below provides a representation of all NCEA Achievement Standards including Level of NCEA, standard number, cognitive descriptors and criteria. Table 2 shows the standards explicitly connecting with socio-critical discourses.

Table 1: NCEA **Achievement Standards**, Physical Education Level 1-3.

AS Number	Level	Title of standard
90067	1	Participate in physical activities and describe how this influences well-being
90068	1	Demonstrate knowledge of body structure and function related to performance of physical activity
90070	1	Explore how the body is portrayed in physical activity
90071	1	Demonstrate interpersonal skills and describe their effects on the functioning of a group or team
90524	1	Demonstrate quality movement in the performance of a physical activity
90525	1	Examine the quality of movement in performance of a physical activity
90432	2	Examine the relationship between physical activity and health, and implications for self and society
90433	2	Describe how functional anatomy and biomechanical principles relate to performing physical activity
90434	2	Examine the principles and methods of training in relation to participation in physical activity
90435	2	Examine skill-learning principles and psychological skills in relation to physical activity
90436	2	Perform a physical activity to meet the physical education Performance Standards for Level 2
90437	2	Investigate the sociological significance of a sporting event, physical activity or festival
90438	2	Plan, apply and review leadership strategies in a group or team physical activity
90439	2	Demonstrate knowledge of safety issues and apply safety management procedures in a physical activity
90739	3	Apply knowledge to plan a physical activity programme or experience
90740	3	Explain, with evidence, the effectiveness of a physical activity programme and its influence on hauora/well-being
90741	3	Appraise performance and review a programme for performance improvement for self or others
90742	3	Perform a physical activity to nationally developed performance standards
90743	3	Examine a current physical activity event, trend or issue impacting on New Zealand society
90744	3	Examine physical activity and take action to influence the participation of others

Table 2: NCEA **Socio-critical Achievement Standards**, Physical Education Level 1-3.

AS Number	Level	Title of standard
90070	1	Explore how the body is portrayed in physical activity
90432	2	Examine the relationship between physical activity and health, and implications for self and society
90437	2	Investigate the sociological significance of a sporting event, physical activity or festival
90743	3	Examine a current physical activity event, trend or issue impacting on New Zealand society

4.3 Standard Selection Patterns

The next stage of this phase of the study involved gathering national data from NZQA on standard selection. The data analysis targeted all physical education standards from Level 1-3 for NCEA. Firstly the data analysis determined the number of *schools* selecting standards nationally. Secondly analysis ascertained the number of *students* selecting standards nationally. 'Students selecting' arises from the 'schools selecting' standards. The number of students who have chosen to study senior physical education at each level generates the student number. Finally, for ease of access subsequently (in the case study phase) for the researcher, one region of schools was selected for further analysis.

Data arising from the analysis of schools in the targeted region were compared with the national findings and the national 'picture' was used to inform identification and selection of two schools for a comparative case study. The national data collected and analysed showed significant findings in regard to patterns of selection and non-selection of specific standards. Notably the national statistics showed a lower rate of selection of the targeted socio-critical standards. This selection pattern is highlighted clearly in Table 3, which shows the selection

pattern across all physical education Achievement Standards nationally. The mean of all schools selecting standards (i.e. μ) was found by taking the total number of schools enrolled during the targeted research period, in all of the standards at each level, divided by the number of standards at each level [μ=Total schools all stds (by level) / total stds (by level)]. From here the percentage difference from the mean was calculated to compare and contrast selection of Achievement Standards. Figure 1.d shows the data arising for difference from the mean in selection of Achievement Standards. Results supported anecdotal evidence that socio-critical standards are selected less frequently than other Achievement Standards (see Chapter 1).

Table 3: Socio-critical Achievement Standards and Total Number of **Schools** Enrolled Nationally in each Standard

Level	1	1	1	1	2	2	2	2	2	2	2	2	1	1	3	3	3	3	3	3	
Year	90067	90068	90070	90071	90432	90433	90434	90435	90436	90437	90438	90439	90524	90525	90739	90740	90741	90742	90743	90744	Grand Total
2006	389	328	258	350	184	301	333	295	369	240	268	280	458	427	333	313	306	346	263	228	6269
2007	416	341	271	350	185	312	331	299	401	236	274	291	470	409	336	322	300	346	264	234	6388
2008	451	376	288	359	188	344	367	313	430	259	290	306	549	444	348	330	312	356	281	219	6810
2009	455	376	266	392	178	346	363	311	425	246	295	300	555	477	363	345	322	390	296	241	6942
2010	505	431	253	396	176	367	389	314	449	255	309	307	592	499	370	347	322	391	298	228	7198
Grand Total	2216	1852	1336	1847	911	1670	1783	1532	2074	1236	1436	1484	2624	2256	1750	1657	1562	1829	1402	1150	33607

Note: Highlighted standards represent the socio-critical standards.

Table 4: Summary of Findings for Percentage Difference from the Mean Number of **Schools** Enrolled Nationally:

Level	Mean (total) of schools entered across all standards in total 2006-2010	Socio-critical standards	No schools entered nationally	% decrease from mean
1	2021.83(2dp)	90070 (L1)	1336	**-33.92 (2dp)**
2	1515.75 (2dp)	90432 (L2)	911	**-39.90 (2dp)**
		90437 (L2)	1236	**-18.46 (2dp)**
3	**1558.33 (2dp)**	**90743 (L3)**	**1402**	-10.03 (2dp)

Findings showed that AS 90070, *Explore how the body is portrayed in physical activity* is selected at a significantly lower rate than other Level 1 standards (μ-33.92%). Furthermore, AS 90432, *Examine the relationship between physical activity and health, and implications for self and society* is selected at a significantly lower rate than other Level 2 standards (μ-39.30%). In addition, AS 90437, *Investigate the sociological significance of a sporting event, physical activity or festival society* is selected at a lower rate than other Level 2 standards (μ-18.46%). Finally, AS 90743, *Examine a current physical activity event, trend or issue impacting on New Zealand society* is selected at a lower rate than other Level 3 standards (μ-10.03%) apart from AS 90744. AS 90744 had the largest amount of credits allocated to it. In addition to credits this standard has a demanding workload associated with the learning underpinning it.

Table 5: Physical Education Achievement Standards and Total Number of **Students** Enrolled Nationally.

Level	1	1	1	2	2	2	2	2	2	2	2	1	1	3	3	3	3	3	3	
Year	90067	90068	90071	90432	90433	90434	90435	90436	90437	90438	90439	90524	90525	90739	90740	90741	90742	90743	90744	Grand Total
2006	15186	10058	13232	3125	5307	6099	5861	10230	4399	5329	6022	19234	14495	4025	3380	3317	5242	3000	2498	148209
2007	15643	10307	13560	3152	5851	6404	6076	11171	4447	5581	6370	19417	14305	4069	3498	3178	5563	2903	2476	152487
2008	19933	15800	17598	4937	9138	9619	8234	12834	6834	7537	8196	22607	17813	6010	5688	5464	6946	4546	3777	204884
2009	20553	16217	18007	4801	9459	9921	8274	13791	6551	8057	8207	23239	18332	6596	6261	5799	7905	5015	4291	211452
2010	20174	16527	17789	4664	10089	10334	8396	14352	6985	8016	8080	23082	18222	6979	6458	5992	8650	5074	4234	213529
Grand Total	91489	68909	80186	20679	39844	42377	36841	62378	29216	34520	36875	107579	83167	27679	25285	23750	34306	20538	17276	930561

Note: Highlighted standards represent the socio-critical standards.

In the same way that schools nationally showed a pattern of non-selection of socio-critical standards, the student numbers selecting these standards was also notably lower than for other standards. Interestingly, a finding arising from this data was the increase in numbers of students selecting standards across the board in 2008 and 2009, while no such increase was seen in the data for schools selecting. This increase can be attributed to the commencement of mandatory reporting of 'Not Achieved' grades – that is, students who have been entered in a standard who did not meet the criteria for Achieved, Achieved with Merit, or Achieved with Excellence. With regard to the student selection data, the mean number of students entered in all standards was found and the percentage difference from the mean was calculated in Table 6.

Table 6: Summary of Findings for Percentage Difference from the Mean Number of **Students** Enrolled Nationally.

Level	Mean students entered across all standards in total 2006-2010	Socio-critical standards	No students entered nationally	% decrease from mean
1	79832.83 (2dp)	90070 (L1)	47667	**-40.29**
2	37841.25 (2dp)	90432 (L2)	20679	**-45.35**
		90437 (L2)	29216	**-22.79**
3	**24805.67 (2dp)**	**90743 (L3)**	**20538**	**-17.20**

Findings showed AS90070, *Explore how the body is portrayed in physical activity* is selected at a significantly lower rate than other Level 1 standards (μ- 40.29%).

In addition AS 90432, *Examine the relationship between physical activity and health, and implications for self and society* is selected at a significantly lower rate than other Level 2 standards (μ- 45.35%). Likewise AS 90437, *Investigate the sociological significance of a sporting event, physical activity or festival society* is selected at a lower rate than other Level 2 standards (μ- 22.79%). Finally, AS 90743, *Examine a*

current physical activity event, trend or issue impacting on New Zealand society is selected at a lower rate than other Level 3 standards (μ- 17.20%) apart from AS 90744. In summary, the number of students entered was significantly lower in the targeted socio-critical standards.

4.4 Case Study Selection

The goal in phase one was to identify two schools for a comparative case study from the national data. In considering the aim of the research for comparison it was important to identify one school selecting Achievement Standards fairly evenly 'across the board' and one school clearly choosing not to select the targeted socio-critical standards. Two schools matching these patterns clearly arose from the data for all schools in the targeted region. School A did not select any of the socio-critical standards targeted in this research. School B had a slight increase percentage of students entered at each level from 2006-2010, and were the only school (in the region) to enter in all of the socio-critical standards. The two schools seen in Table 7 and Table 8 had significantly different patterns of enrolment in Achievement Standards and therefore met the criteria for the comparative case study. In addition, Table 9 illustrates the difference from the mean of students entered at each level.

Table 7: **School A**, Selection of Achievement Standards.

Note: Highlighted standards represent the socio-critical standards.

		90067	90068	90070	90071	90432	90433	90434	90435	90436	90437	90438	90439	90524	90525	90739	90740	90741	90742	90743	90744	
School A	2006	153		▌	103	▌	15	19	19	20	▌	19	19	85	64	11	13	8	13	▌	11	572
	2007	164			74		7	7	8	8		8	8	95	75	11	11	11	11		10	508
	2008	142			72		13	13	13	13		13	13	80	45	11	11	11	11		11	472
	2009	177			112		13	13	12	13		12	12	101	43	6	6	6	7		5	538
	2010	172			87		17	17	17	17		17	17	111	71	10	10	10	10		10	593
School A	Total	808		▌	448	▌	65	69	69	71	▌	69	69	472	298	49	51	46	52	▌	47	2683

AS 90070 all opted out

AS 90432 all opted out

AS 90437 all opted out

AS 90743 all opted out

Table 8: **School B**, Selection of Standards

Note: Highlighted standards represent the socio-critical standards.

	90067	90068	90070	90071	90432	90433	90434	90435	90436	90437	90438	90439	90524	90525	90739	90740	90741	90742	90743	90744	Grand Total
2006	156	140	138	6	46	39	51	47	104	54	34	28	221	154			23	53	22	21	1337
2007	112	93	108	10	77	75	104	107	181	82	42	36	139	109	29	27		83	28	27	1469
2008	114	113	113	31	50	49	50	52	86	51	42	47	145	114	55	50		112	54	50	1378
2009	105	103	100	24	54	55	56	54	115	58	47	47	126	102	30	30		88	30	30	1254
2010	88	87	88	35	60	60	62	60	84	59	45	47	126	88	37	37		96	37	34	1230
	575	536	547	106	287	278	323	320	570	304	210	205	757	567	151	144	23	432	171	162	6668

Table 9: Difference from the Mean of **Students** Entered at Each Level

Level	Mean students entered across all standards in total 2006-2010	Socio-critical standards	No students entered	% increase/ decrease from mean
1	514.67(2dp)	90070 (L1)	547	**6.28(2dp)**
2	312.13 (2dp)	90432 (L2)	287	**8.05(2dp)**
		90437 (L2)	304	**2.61 (2dp)**
3	**180.50(2dp)**	**90743 (L3)**	**171**	**-5.26(2dp)**

AS 90070 similar to the Level 1 (μ+ 6.28%)

AS 90432 similar to the Level 2 (μ+ 8.05%)

AS 90437 similar to the Level 2 (μ+ 2.61%)

AS 90743 similar to the Level 3 (μ- 5.26%)

4.5 Comparative Case Study: Semi-structured Interviews.

A comparative case study approach was utilised for phase two of the research. This involved one school selecting and one school not selecting socio-critical standards, being chosen for this phase of the research on the basis of findings from phase 1. The first data collection method was semi-structured, individual interviews (May, 2010) with the 2 HODs. Secondly, individual interviews took place with an additional relevant staff member from each physical education department. The additional interviewee was chosen for relevance to ensure coverage of teaching across all three levels of NCEA. Phase two of the research set out to explore the first two sub-questions:

What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?

and

How are teachers interpreting and applying socio-critical standards in senior physical education?

4.6 Participants

Two schools were identified from phase one data for a comparative case study. School A is a high decile independent single-sex girls' school in the region targeted for research. The school did not select any of the socio-critical standards targeted in this research over the period of 2006-2010. School B is a high decile co-educational school in the region targeted for research. The school selected all of the socio-critical standards targeted in this research over the period of 2006-2010.

As explained in Chapter Three, a total of four teachers, two from school A and two from school B, were involved in the comparative case study. Table 10 identifies the participants, using pseudonyms. Common European names have been purposefully selected to avoid being linked to any meaning or characteristics of any participant. In addition, information in Table 10 has been provided in a way that maintains teacher anonymity, as required by the Waikato University Research Ethics Committee. As differences in teachers' years of experience and demographics in relation to where they have taught are potentially influential variables, this information is provided in the table for reference throughout the chapter. In addition, the settings of schools are expanded upon further in the text.

Table 10: **Teacher Participants** for Interviews

School	Teacher	Years Teaching	Years Teaching in Current School	Years as HOD	Type of school taught at Co/ SG/ I/ St	Taught in NZ/ UK/ Aus (Country Trained Bolded)
School A	Jessica	32 (NZ)	13	20	Co/ SG/ I/ St	NZ/ UK/ Aus
School A	Anna	20 (NZ)	11	NA	Co/ SG/ I/ St	NZ/ UK
School B	Mary	8 (UK)	4	2	Co/ St	NZ/ UK
School B	Jane	9 (NZ)	9	NA	Co/ St	NZ/ UK

NZ =New Zealand

Aus =Australia

UK =United Kingdom

NA =Not Applicable

Co =Co-educational School

St =State School

SG =Single Sex Girls School

I =Independent School

4.7 School A:

In considering and analysing data arising from phase 2 of the research in School A the following question was the first focus - *What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?* In addition, data from interviews highlighted an inter-relationship that arose from the first research question to the second - *How are teachers interpreting and applying socio-critical standards in senior physical education?*

Interpretation of standards had a major influence on whether or not the standards were selected and this was how the inter-relationship occurred. Interpretation of standards and the

influence of this on standard selection will be expanded on below. Clear patterns arose from the data involving influences on decisions for selecting or in this case, non-selection, including aspects such as school structures, course endorsement and assumptions about socio-critical standards as non-practical and "health" based. Other considerations included legitimization of physical education, parent perceptions, and also standards opted into at the inception of NCEA not really being reflected upon.

4.7.1 School Structures

Clear patterns emerged from the data that school structures including timetable, and numbers of credits across the whole school, as influences on standard selection and programming of teaching and learning. There was consideration of the students over the whole school programming and this influenced the number of credits that physical education as a subject offers at the senior level in School A. Programming at School A has been influenced by whole school structures of programming and Jessica stated:

> *In all three levels, we don't do the full complement of 24 credits and that's basically influenced, because, of the number of subjects students do, um, the amount of activities that take kids out of classes, um and trying to make it manageable when students actually achieve well.*

Timetable structures were an influence, particularly at Level 1 where physical education is not a full subject quota and priorities are given to other subjects. Therefore, the physical education department were lead towards having to make a choice about Achievement Standards as not all could be selected. Anna considered this when she stated:

> *Um, our students don't come to us for a full subject quota, so if they were to come for a full subject quota, that would be 6 days one period per day, they come four days out of six and then we lose them at a certain time for exam revision and things like that so, effectively our students are part time. We couldn't, we couldn't offer a full course.*

In addition, the credits that students have access to and the stress that this can place on students was an aspect that the physical education department had also considered in the standard selection process as mentioned by Anna:

So, our girls, overall, generalisation, score a lot of credits, we don't have to chase every credit and to give them balance in their year and wellbeing and manage stress, um, if we put this in, we would almost be overloading the course.

Furthermore, there was a strong correlation between the number of credits on offer and how this had influenced standard selection. In addition, an assumption that socio-critical standards are non-practical lead teachers to prioritise standards other than explicitly socio-critical standards. The issue of priority was highlighted when Anna said:

…in the past in these years to do a full course I think was 24 credits, and our girls are doing more subjects than most other state schools, Um so we, to offer a full course we only had to offer 18 credits. Then that was the one that was chosen to be dropped, because we were trying to make the course as practical as possible and it wasn't felt that that standard would give the girls a, the practical outlet. ---They get a lot of these skills from other curriculum-based areas, it almost felt like a bit of replication.

Timetable constraints were an on-going concern. When School A was questioned on whether they would select socio-critical standards in the future and what would need to change for School A to opt into some of the socio-critical standards, Anna replied:

… if we could find something that we weren't crowding the curriculum or crowding the timetable, or pulling the girls out of other things, so you are looking at something that already existed, then we could build that around that.

Logistics was a consideration for time out of class and the effect that this has across the school was cited as another influence on the decision-making process of standard selection. Balancing the time out was seen as a priority for planning as stated by Anna:

… logistics, ahhh because we were offering 2.7 and 2.8 which was the safety management at the time and at the time they were leadership, they have since changed the terminology, they are strategies and things. Um, we, had the girls out of class, or offsite enough and also our year 11's were already pulling out our junior

kids, for kiwi sport, so logistically trying to get a group of students to then um, ---be perceived as out again for something else, it was just, it's almost too much.

Teacher-centric decision-making occurred. Decisions were mindful of logistics and workload for teachers involving standard selection. This was highlighted by Anna when she said:

Like you can take on so many things and we also took girls offsite for performance, so to then do something else again, was just like the poor teacher in charge of that course is pulling their hair out, trying to work out everything, it's not easy to take people out in this school.

4.7.2 Legitimisation and Parental Perceptions

In School A there was also an intention of legitimising the subject with sports science, as science is a priority in the school and consideration of parent perception was evident. Standard selection therefore involved purposeful selection of standards with a sports science focus. This was highlighted when Jessica said:

Put it this way, we've actually renamed, retitled, the course to sports science, so that our parents understand, or better understand the nature of what the learning is like, in those senior courses, because, their perceptions are that PE is just out there playing games.

Parental perceptions and a want to ensure that physical education was not just seen as a break from academic rigour seemed to contradict with the purposeful selection of practical standards. Science was seen as the justification and rigour that physical education needs as stated by Jessica:

Yes, ahh, the parents perceptions around, um, PE, tends to be that it's a subject that's a break away from academic rigour and ahh a chance for the students to be physically active, but doesn't necessarily involve any higher order thinking and so, we've with the number of students going away, with the number of things happening in the school we have had to really, I guess market the subject a lot more and part of that marketing has been to rebrand it as sports science, um, because the term

science, even though as physeders we struggled with the narrowness of that concept, we knew that the science term in there would actually captivate the interest of our…………community.

Strong links between the strength of science at the school and the selection of standards was apparent when Jessica reflected:

…probably the other factor that influences some of our choices is that, sort of thinking about those questions, is that a lot of our students here, are hell bent on going down scientific pathways and so we choose the scientific standards, because that's more likely to get us the students, um into our courses, and low numbers is an area that we're always working on---improving. Maybe actually if we went the other way, we'd get more students. Because the science ones are doing science anyway.

In addition to the school focus on science, the physical education department have suggested that the students select physical education as a subject for its biophysical aspects. Acknowledging this as a potential assumption, they have selected performance as a focus in the teaching and learning and therefore have selected standards based on this. Jessica pointed to selection of biophysical standards, when she stated:

Yep, so it's the, I guess it's the biophysical aspects that we think and that we believe, we are making assumptions, because we haven't tested those, um, is what the girls are interested in learning in our subject area and so that influences our choice of standards and also the context where we use for the learning of those biophysical aspects we try and link to something that's significant for the students as well, so, it might be something that they have experience in or it might be new experiences because, we are doing things that are looking at performance improvement, where, the biggest improvements happen when you are doing something new and so there is more potential for learning doing something new rather than doing something that you are already good at.

4.7.3 Sticking With Status Quo

A continuing pattern of non-selection of socio-critical standards, apart from the optional selection of AS 90070, has occurred at School A. An assumption that the socio-critical

standards are really only required for scholarship has lead to further justification to not change standard selection. Jessica stated this explicitly when she said:

I don't, yeah I don't know if you would actually need to make any changes, because, there are some natural links between that and some of the Level 3 and obviously what you need at scholarship, but because we know our students haven't covered those, then we cover that, that lack of work that they have done at that level, we know we have got to cover that in more depth at the higher levels.

In addition comments tended to show a comfort with the status quo and justifications that choices are inevitably part of the process. Jessica highlighted this when she said:

…we can't do all the Achievement Standards, so you are always going to be making choices… nobody has really decided to say well no we should actually critique, we should actually do things differently to what we are doing.

Not only was this made clear by Jessica, Anna also justified retaining the status quo, acknowledging little or no department reflections on the Senior programmes compared to the Junior programme. Anna reflected:

I guess, change is hard to implement at this school, so it's easier to go with the status quo, rather than ---look at it again, ummm, we do massive reviews at the junior level but, to be honest, I don't know if we really review the senior course, like, I know the students give evaluations, ummm, but I would question, whether we as a department address the whole, senior delivery and that might come about because we have small numbers at the moment, where as if we had multiple classes, I think, we would find that would happen as a natural process of having, two teachers teaching side by side. Whereas you're very much in isolation, you get your course and you go with it.

4.7.4 Course Endorsement and Academic Achievement

Data for School A highlighted that the consideration of course endorsement, while not in the years of analysis for standard selection, has definitely become a focus in more recent times. The only shift from the time that the data was collected is with AS 90070. To begin with, the staff did not select this standard. In more recent times students can opt in and complete in

their own time and the general theme that arose in the data was that the reason for this was for course endorsement. Jessica stated:

We're actually doing that now, um, ….actually introduced it last year as an optional standard for Year 11, um, because it was introduced after the year started the girls actually had to do their tutorial time during their lunchtimes and so all of it was actually done out of class time, but in essence, that has allowed students to get course endorsement. So we've now incorp, this year we have incorporated into the structured classroom time programme, obviously, for homework as well, um, but letting the girls, opt into it, and I just actually did a tally up last night, of the options, there is only 25 students in the whole cohort that have opted not to do it.

Data showed that the standard selection was strongly influenced by course endorsement and Jessica stated this explicitly when she acknowledged:

So, the question for me is, is it of interest because it gets them course endorsement, or is it of interest because, they see value in what they're going to be learning and at this stage, my suspicion would be because they are going to get course endorsement.

On-going consideration of credits achieved by students, more in line with course endorsement, emerged from the data. Jessica alluded to this when she said:

Those two are the standards that we don't do, um because 18 credits is sufficient for them to get their course endorsement and they're the credits that engage the students practically.

In addition to the focus on course endorsement there is also a strong focus on academic achievement as a motivation intrinsically for girls as well as extrinsically through school structures such as scholar badges. This was stated explicitly by Anna when she said:

I'd say 80% of girls have actually enrolled for it because they see it a way, as a way to get endorsement, certification and also to go for scholarship, scholars badges in this school.

4.7.5 Assumption: Socio-critical and Non-Practical

Interpretation of the standards has a significant impact on the selection of standards at School A. This interpretation is related to the assumption that socio-critical standards are non-practical standards in the teaching and learning programme as well as the accompanying assessment. This assumption, together with an explicit concern of keeping physical education practical, appeared to result in the non-selection of socio-critical standards. Data arising showed teachers thought that students choose to do physical education because of its practical nature. This in turn influences the choices that the department make around standard selection as Jessica stated:

> *..one of the biggest factors for students choosing to do PE as a subject is that they like the practical component of it and so--- our priority is to put practical components in there first and then, if there's room to sort of go beyond that, to actually then look at standards that might sit outside that.*

Anna reiterated that the assumption that socio-critical teaching and learning equates to a lack of practical experiences and therefore has a strong influence on standard selection. From this assumption, biophysical aspects of performance improvement were reported to align more easily to programming and application of practical contexts. Anna stated:

> *Again, mostly because it's, there's no natural easy way, well easy is probably the wrong word, it doesn't lend itself to, um, use in a physical activity context, in the same way that the learning in the other standards does. But you could actually, I guess, create physical activity contexts, but you still, a lot of learning will not come out of those physical activity contexts. Whereas if you look at things like performance improvement and some of the others, their actual engagement in those, in the activities that you have actually enhances their learning---and helps it to make sense.*

Strong patterns emerged regarding the practical aspects of physical education, that continued to draw on the assumption of socio-critical standards as non-practical, as stated by Jessica:

...possibly, um, because I guess what differentiates PE from the other subjects is the practical context and so,---what sits very high in the priorities is that you try and retain that practical context otherwise why are you actually teaching PE?

Purposeful selection of standards that were not socio-critical occurred at the senior level of physical education. Anna made that clear when she said "*then that was the one that was chosen to be dropped, because we were trying to make the course as practical as possible and it wasn't felt that that standard would give the girls a, the practical outlet*" and she also said "*I would say yes, um, because I was around when we got to choose and I chose standards that um, allowed for practical application*".

The "point of difference" of physical education being practical, along with the balance of the academic calendar and where physical education sits within this was highlighted. For example Anna said:

> *Um, at times the standards that we eliminated were perceived as not having a heavy practical base, ---and our students do so much theory, or their academic calendar is so weighted towards theory we needed to be the point of difference and our point of difference is that we are physical.*

4.7.6 Assumption: Physical Education and Health as Separate Knowledge Bases

Data from School A indicated an apparent additional assumption was made at School A with socio-critical viewed as meaning "health". Once again the interpretation of the standard, as being learning associated with the subject health, had a significant impact on the non-selection of socio-critical standards at the school. Justification occurred that these aspects were being taught in year 10 health education*:*

> *The, certainly the whole sort of factors influencing students' perceptions around body image is an issue here at ... um at various times, depending on who's been available, we have covered aspects of that in our health programme, particularly at year 10. Um, but not consistently over time, we do recognise that as an area of concern that does need to, um, be kept on our radar, in terms of how we might...*

As a result of the assumption that socio-critical standards equated to the subject health, this teaching and learning was passed onto teachers of health. A shift towards reflecting on whole school wellbeing was in the process and there was a possibility of socio-critical aspects of the curriculum being passed on. Anna reflected on the big picture of who is responsible for what in the HPE curriculum area when she stated:

Umm, we now have a director of health, who is in charge of looking at the big picture and already establishing that there are some holes in the girls' learning and the vertical house system has changed things in the sense that, the school is looking holistically more at girls wellbeing and this could potentially cater to those needs. So basically, yeah it's seeing the big picture.

The process of whole school reflection on programming of teaching and learning was reiterated as a potential way into selection of these standards. Reflection by the physical education department was not apparent, rather there was a 'passing on' of responsibility for teaching socio-critical aspects of the curriculum. For example Anna also stated:

Ummm,---possibly to have it picked up by other departments, so it's not just us that need to offer that standard, that it's open to other people. If we go through with some of the curriculum changes that are coming through in the next potentially 12 months to 24 months, um there are going to be, shifts in how subjects are offered and this might, we might end up generating a health course for senior PE. Like with a specific health focus.

On-going interpretation of socio-critical as health-based have deterred the physical education department from selection of standards related to this. Furthermore the assumption that socio-critical is "health" was stated explicitly when Anna said:

…probably to have more of a critical health focus and to bring in some of the thinking skills and some of the critical evaluation, that the girls do across the school curriculum at our school. But in essence to be health focussed.

4.8 School B

In considering and analysing data from phase 2 of the research in School B the following question was the first focus - *What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?* In School B there was less of a focus placed on the first research question as all of the socio-critical standards and most other standards were selected by this school. Therefore, greater attention was directed to the second research question - *How are teachers interpreting and applying socio-critical standards in senior physical education?* Interpretation of standards had a major influence on the application of the socio-critical standards at School B. Clear patterns arose from the data, however data arising differed to School A as the socio-critical standards were being selected and applied.

4.8.1 Student Interest and Relevance

In School B there was significant consideration of student interest, enjoyment, relevance, passion in both the teaching and learning programme and the assessment programme that aligned to this. 'Relevance' was a considered in standard selection and application as indicated by Mary:

> *So we've looked in detail at a huge number of factors, um and it was relevant to the students, the students with this one we do now could pick a sport of their choice, so they can use their own, personal experiences, what has effected them participating in skateboarding, um so I think it's students have some of that knowledge…*

Relevance of learning to the learner was a focus for the whole physical education department as reiterated by Jane when she stated:

> *I think we are seeing a bit more of a shift in our department as to what's going to be better for the students, um, as opposed to what is easier for us and what we are used to.*

Passions and interest were a consideration in selection and application of the socio-critical standards as explained by Mary:

They could bring prior knowledge from Level 1 but also from outside and it is also something that a lot of the students do have opinions on, do enjoy finding out about and looking into research etc… um and it was something that you know, they had that passion to do.

In addition to passions, enjoyment was also prioritised in standard selection and application. Jane reflected on the continuing selection and practical application of AS 90070:

We enjoyed the practical part because we did different sports, we looked at sumo wrestling, and my memories, going back now, but that sort of springs to mind, beach volleyball and those sort of activities, ah the kids really enjoyed doing those.

A shift in standard selection has occurred since the 2006 - 2010 period. Reflection occurred within the department and once again student voice was a consideration in the selection of the only standard not selected at the time of the research. Mary explained why:

It was something we did really well in, with grades, but also the student voice they really enjoyed it, so we have reintroduced it back in at Level 3 and when we've spoken to he students that have left an gone onto university, they do an anatomy and because we haven't done any at Level 3 they've struggled slightly, when they are at university, so um yeah we've brought it back in, from teacher passion, student voice and um, just the transition from Level 2 as well.

4.8.2 Teacher Interest and Passions

There was also significant consideration of teacher interest, passion in both the teaching and learning programme and the assessment that aligned to this. As a result the standard selection and application clearly highlighted consideration of the teacher, with several comments from Mary such as:

I think again, it's done, the teachers enjoyed that standard, there was the flow on from Level 1 and onto Level 3… so um yeah we've brought it back in, from teacher passion, student voice and um, just the transition from Level 2 as well…

and also

…with that standard again, um, it was something, um, progression through Level 1, Level 2, the teachers really enjoy that one as well.

Hence the department programming and in turn, the rotation of teachers, were influenced further by ensuring teacher interest in content. Mary highlighted this in saying:

Yeah, I think, as a teacher you need to be interested in the topics and the content that you are teaching, um, it can't totally drive the standards you pick, because, we try and have a rotation where we teach as a teacher in a year level for 3 years and then rotate off and new teachers, in, so, I think you've got to have, you know, sort of, I want to enjoy what I'm teaching and have that in-depth, knowledge in that area.

4.8.3 Variety, Pathways and Progression

Findings for standard selection and application at School B showed that variety, different pathways and progression were an influence on the decision making in both the teaching and learning and the assessment that aligned to this. Mary explained:

… so when we're picking our standards because we have Level 1, 2 and 3 full NCEA course so 20 credits, we also have applied PE courses at Level 1, 2 and 3 and we have um outdoor ed at Level 2 and 3 and plus a senior sports performance at Level 2 and 3. So what we do is we try to look at ones so we are not double dipping, it gives students an opportunity to do outdoor ed, they can also do PE, they can't to PE and applied so we never cross over there so we try to look at standards that are suitable for applied they only do 14 credits and we look assessments and also look at the standards that are suited to them and sort of what they would get out of it for maximum achievement really and then for the Level 1, 2 and 3 full NCEA courses um we look at ones that are so that there is progression throughout the years so Level 1 with a good flow on to, Level 2, Level 3.

The selection of socio-critical standards was seen as influenced strongly by a need for balance and variety in programmes. Socio-critical standards were seen as "different" to other standards and therefore added breadth to the teaching and learning at School B. Jane commented on this intent to balance saying:

…it's different to the other standards, so it's different to your anatomy, it's different to your strategies and things like that, so, it sort of gives the kids a bit more of a broader physical education experience, um, at the time we wouldn't have had health, it's a little bit sort of health, which may have been why it was selected.

Standard selection included variety as an influence and notably, the assumption that socio-critical standards are "health" standards again arose from the data in a similar way to School A. Jane showed this perception of intent when she stated:

… I would probably say the variety, like when we look at our programmes we try to make sure our standards are quite different to each other so, students get some variety, cause you've got kids that really like the biomechanics and stuff and they are really good at that, but then we've got kids that would be really good at that sort of health sort of thing and I suppose if the standard was chosen again, there wouldn't have been any health classes.

In the same way that variety was a concern in standard selection, so to was progression across the three levels of high stakes assessment. The progression of thinking and standards were mentioned by Mary who said:

…with that standard again, um, it was something, um, progression through Level 1, Level 2, the teachers really enjoy that one as well.

Likewise in School B, the progression through from junior programming was another articulated influence. Mary commented:

…also sort of what levels students are thinking at, what level they are working at, the progression between the years, and we've used it a lot when doing junior

programming, so we make sure that our students, um have those skills for when they need them, when they get to Level 1.

4.8.4 Socio-critical Standards, Inherently Practical

In comparison with School A, data from teachers in School B indicated that practical physical education is considered inherent in the socio-critical standards. This contrasted between the two schools in School B socio-critical standards were selected and applied in a practical context across all three levels of NCEA. Mary noted that in AS 90070:

…we looked it at it through a range of activities, I think so, if I can remember rightly we looked at the way, we had various sports and we tried to look at different types of sports I think, yeah we had sumo, we had netball, we had beach volleyball, so we were looking at how, um those athletes or how those sports are portrayed um by people and also what factors influence peoples' perception, um, with that one.

Similarly to the Level One AS 90070 fore-mentioned, Level Two AS90437 was also interpreted and applied with a practical focus. The intent of AS 90437 was considered practical by nature by Mary who said:

… last year they did the, or two years ago they did world cup, so that was in 2010, so the practical went alongside that was a football world cup so each class had a tournament, had countries, had teams, competed against each other that they organised themselves.

Similar to the interpretations relating to Level One and Two, at Level Three the intent was read as being inherently physical. Mary clearly articulated this for AS 90743 when she stated:

… we did a fitness craze at (……name removed), so we did an aqua aerobics, we did a pump class, we did a yoga, we did bikram yoga, a lot of these students had never experienced these fitness crazes before, they had seen the ab circle pro and yeah some of the girls had done pilates yeah no, some of the boys had never wanted to do it and it was changing their perceptions by doing the practical and also because they

could use personal experiences in their assignment, we had to give the practical to go with that.

Like Mary, Jane articulated a reading of the intent of the socio-critical standards. She reiterated the perceived inherently practical nature of these standards. Talking about AS 90070 she said:

…we enjoyed the practical part because we did different sports, we looked at sumo wrestling, and my memories, going back now, but that sort of springs to mind, beach volleyball and those sort of activities, ah the kids really enjoyed doing those.

The perception of socio-critical standards being inherently practical was reflected in data from both members of the department that were interviewed. Referring to Level two NCEA Jane commented:

…the practical is usually quite good for that one, because we, like say for example soccer world cup, we'll you know split the class into teams and sort of run a bit of a tournament and they all choose a country and that sort of thing, so the students really enjoy the sort of practical we set up for them and they find it interesting as well, um, yeah, specially the boys quite like this one, um, I think the practical competition part, but also they like finding out bits and pieces about the event, especially if it's like rugby world cup or soccer world cup.

4.8.5 Reflection and Action

In School B ongoing reflections and modifications to the teaching and learning programme had an influence on the teaching and learning programme and the assessment aligned to this. This influence was clear in the selection of standards, and in the actual application of the teaching and learning that underpin theses standards. Reflection and action over time showed ongoing shifts in contexts applied. Mary made the reflection and shifts clear for AS 90070 when she stated:

We chose to do that one as a school because we felt it was relevant to the students, it got the students to think, um we changed it slightly from the old one it was always an exam that they would sit, that one, and we looked at, yeah, factors that did effect self

others and society, but now we've gone more into detail and we've looked at different aspects of, we've looked at peers, we've looked at commodification, so we've looked in detail at a huge number of factors, um and it was relevant to the students, the students with this one we do now could pick a sport of their choice, so they can use their own, personal experiences.

Critical action was also taken in line with the relevance of context, particularly for AS 90437, which focuses on an event. The event focus was altered in an on-going manner, to reflect an event that was current and relevant at the time. This supports authentic learning, with greater access to relevant and current research. For example Mary said:

…and then they always changed it each year, depending on the relevance of what was going on, so was it the rugby world cup? This year with the new standard they have done it on the Olympic games, I know they have done it on the Commonwealth games, or the winter Olympics, so it was always something that was quite current. Um it helped pop the students interest.

Reflection and action again occurred at Level Three NCEA for AS 90743, *Examine a current physical activity event, trend or issue impacting on New Zealand society.* The shift of context has moved over time as Mary stated:

… I think it did change, back in 2009 it was obesity, it used to be obesity and then 2010, 11 and this year 2012 we've done fitness crazes, um we were thinking about changing it this year".

4.9 Conclusion

The dynamic between assessment frameworks, interpretation, selection and application of standards in senior HPE curriculum and pedagogy are wide ranging and complex in nature. Baseline data from NZQA on standard selection has been summarised and was used to inform the selection of schools for a comparative case study. The comparative findings of the two case studies have been considered in relation to research questions put forward in Chapter Three. These findings will be discussed in further detail in Chapter Five.

Chapter 5: Discussion

5.1 Introduction

This chapter provides a discussion of the key research findings outlined in the previous chapter. Due to the emergent nature of this study, the aim is to address the diverse range of themes from the data. In addition the aim is to relate the findings in this case study to issues raised in previous research and literature. The chapter also explores discourses, both biophysical and socio-critical, in relation to tensions, dichotomies and dualisms found within policy and practice of high stakes assessment in HPE. In addition, discussion considers the dynamic between assessment frameworks, interpretation, selection and application of standards in senior HPE curriculum and pedagogy. The chapter is divided into four main sections, to set the scene and then to explore each of the main research questions on standard selection, interpretation and application. It concludes with a summary of the discussion.

5.2 Setting the Scene: The Extent and Nature of the use of Socio-critical Standards

Chapter Two introduced the concept that the development of curriculum and assessment in physical education is a highly political process, influenced by competing discourses and pedagogical beliefs (Bowes, 2010a & 2010b; Brown & Penney, 2012; Evans & Penney, 1995; Culpan & Bruce 2007). The findings of this research affirm the contested nature of these discourses and clearly show the dichotomous relationships that play out in the selection, interpretation and application. Several dichotomous relationships are evident in the data and Table 11 shows a summary of the dichotomies at play. Dichotomies in the context of this research involve the division of discourses, knowledge bases, or ways of 'doing' learning into two mutually exclusive, opposed, or contradictory groups. It should be noted that literature often refers to dualisms in a similar manner.

The antagonisitic nature of the four dichotomies identified in Table 11 was apparent in the findings of the comparative case studies. Engagement with dichotomous thinking can mean teachers uncritically take on board an 'either/or' mindset in the interpretation, selection and application of socio-critical standards. The dichotomies will be explored further in the discussion of interpretation of standards.

Table 11: Dichotomies Arising from Data

Socio-critical Discourses	Biophysical Discources
Theoretical Knowledge and Learning	Practical Knowledge and Learning
Body	Mind
Physical Education	Health

International literature clearly shows that curriculum, assessment and pedagogy should be integrated to achieve 'authentic assessment' (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & Macdonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009). The findings from this study and the literature have shown the complex dynamic between the assessment frameworks, standard selection and the interpretation that underpins the HPE curriculum and pedagogy. This discussion sets out to explore some of the complexities of this dynamic.

As discussed in Chapter Two, shifts to foreground socio-critical discourses are both explicit and implicit in the context of the HPE curriculum internationally (Brown & Penney, 2012; Cliff, 2007; Cliff, 2012; Penney & Hay, 2008; Thorburn, 2007) and in NZ within NCEA Level 1-3 (Bowes, 2010a & 2010b; Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014; Penney & Jess, 2004, Penney *et al,* 2009). Chapter Four detailed the association of particular standards for NCEA Levels 1-3 with socio-critical discourses and explored national data in relation to patterns of selection of standards. The findings from the case study research made it clear that the process of standard selection by teachers is strongly influenced by their interpretation of the standards. Therefore interpretation, and the influences on this interpretation, will be explored further in this chapter.

5.3 National Data of Standard Selection

The data arising from phase one of the research gave empirical support to anecdotal impressions of selection patterns and supported the case for in-depth exploration of selection decisions. Analysis of the national data showed significant findings in regard to selection and non-selection of standards. Specifically, the national statistics showed a lower rate of selection of the targeted socio-critical standards. In the same way that schools nationally showed a pattern of non-selection of socio-critical standards, the student numbers selecting these standards was also notably lower than for other standards. Issues underpinning the

patterns of selection needed to be explored. Phase two of the research sought to do this. Within this phase clear dichotomies were apparent between the two cases and shown by the extent and nature of their use of socio-critical standards. The discussion is structured to first consider School A and then School B.

5.4 Interpretation as an Influence on Non-Selection of Socio-critical Standards: Assumptions made

5.4.1 Assumption: Socio-critical and Non-Practical

Contrasting data arose from the two schools involved in the comparative case study. It has become clear there was a strong link between teacher interpretation of the standards and whether or not socio-critical standards are selected from the start. The foregrounding of socio-critical pedagogy and a student-centred approach is both implicit and explicit in HPENZ (MoE, 1999); *Making meaning: Making a difference* (MoE, 2004); NZC (MoE, 2007). The literature has acknowledged the implicit/explicit nature of these discourses (Bowes 2010a, 2010b; Bowes & Bruce, 2011; Burrows, 2005; Culpan & Bruce, 2007; Penney & Jess, 2004) and questioned whether these are embedded in practice.

From the findings of this research it appears that interpretation, selection and application of standards is being strongly influenced by the ongoing tension and dichotomous relationship between theoretical and practical teaching and learning. Teachers in School A have interpreted the socio-critical standards as non practical. Many examples of the implications of this interpretation arose in the data such as when Anna said:

> *…then that was the one that was chosen to be dropped, because we were trying to make the course as practical as possible and it wasn't felt that that standard would give the girls a, the practical outlet* and she also said *I would say yes, because I was around when we got to choose and I chose standards that um, allowed for practical application.*

The philosophy of the department was focused on keeping teaching and learning as practical as possible, for example Jessica stated:

...possibly, because I guess what differentiates PE from the other subjects is the practical context and so,---what sits very high in the priorities is that you try and retain that practical context otherwise why are you actually teaching PE?

Implications of this interpretation were clear: due to the focus on the practical, alongside the assumption that the socio-critical standards are non-practical, deliberate non-selection occurred in all explicitly socio-critical standard targeted in this project as highlighted in Table 7. Again this interpretation was reiterated in the interview data by Jessica, when she stated:

..one of the biggest factors for students choosing to do PE as a subject is that they like the practical component of it and so--- our priority is to put practical components in there first and then, if there's room to sort of go beyond that, to actually then look at standards that might sit outside that.

Furthermore when interpretation of socio-critical standards assumes the standard is non-practical, a body-mind dichotomy is being applied in assessment practice. This dichotomy leads to challenges in the search for 'authentic' assessment in physical education (Bowes, 2010a & 2010b; Bowes & Bruce, 2011; Brown &Penney, 2012; Penney et al, 2009; Sullivan, 2013, Thorburn, 2007; Thorburn & Collins 2003, 2006a, 2006b). Authentic assessment will be explored further in the discussion on alignment of curriculum, assessment and pedagogy.

Turning to alternative literature, "healthism" (Kirk and Colquhoun, 1989), which blames the individual for ill health and does not consider social, environmental and other factors (Tinning, 1990) can also arise in action. Where the focus of physical education shifts to prioritising physical activity (Gard, 2003; Gard & Wright 2005), Gard (2003) considers that the danger is not physical activity. Rather the concern is the prioritisation of these agendas over the educative value of physical education. While the consideration of "healthism" arose in the literature, the correlation with this was not apparent in the data.

5.4.2 Assumption: Physical Education and Health as Separate Knowledge Bases
A second assumption arose in the data related to interpretation of the standard. Interpretation of the socio-critical standards as involving *only* health-based knowledge once again

highlighted a diochotomous relationship. In this instance the tension was between health and physical education. An assumption that physical education and health draw on separate knowledge bases arose in the data. School A was explicit in the fact that the only way that the socio-critical standards would be selected would be for a shift towards a health-based course. For example Anna said:

> *Possibly to have it picked up by other departments, so it's not just us that need to offer that standard, that it's open to other people. If we go through with some of the curriculum changes that are coming through in the next potentially 12 months to 24 months, um there are going to be, shifts in how subjects are offered and this might, we might end up generating a health course for senior PE. Like with a specific health focus.*

The literature supports the shift in focus to a socio-critical pedagogy, but not to the demise of physical education and the rise of siloed health-based knowledge. There is a strong interplay between the assumption that socio-critical discourses are non-practical and theoretical only, with the assumption that the socio-critical knowledge is health-based, which has arisen in the data. It was clear that these standards were seen as "thinking" and "health" focussed rather than practical. When discussing the possibility of implementing socio-critical standards in the future, Anna commented:

> *…probably to have more of a critical health focus and to bring in some of the thinking skills and some of the critical evaluation, that the girls do across the school curriculum at our school. But in essence to be health focussed.*

Once again, dichotomous thinking came into play with a health-based knowledge / physical education-based knowledge tension arising. Interpretations illustrated in the data contrasted to the emphasis in the literature that the use of socio-critical discourses includes privileging the educative focus of physical education (Cliff, 2007; 2012). As discussed in Chapter Two, tension between socio-critical and biophysical discourses are acknowledged in the literature. While the contexts of sport and physical activity are still used in teaching and learning programmes, the educative focus (in contrast to the biophysical) changes with the adoption of socio-critical discourses. The literature identifies this with shifts from: performance to participation (Tinning, 1997); competition to cooperation (Leah & Capel, 2000);

commonsense to critical (Culpan & Bruce, 2007; Wright et al, 2004); and individualism towards accepting diversity, tolerance and inclusiveness (Macdonald, 2002).

When dichotomous thinking on health-based knowledge and physical education-based knowledge occurs, the educative focus of socio-critical discourses can be undermined. The literature acknowledges this type of thinking can take away from holistic learning in health and physical education being "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008). Insights from the data show that when dichotomous thinking on socio-critical means health, HPE experiences can be limited with narrowing of programmes.

5.5 Other Influences on Non-selection of Socio-critical Standards

5.5.1 Cross School Structures and Systems
In Chapter 5, clear patterns emerged from the data that school structures including timetabling, and the numbers of credits across the whole school, were notable influences on standard selection and programming of teaching and learning. There was consideration of the students' programmes across the whole school in terms of how many credits they are enrolled in across all subjects. This influenced the number of credits that physical education offers as a subject at the senior level. The focus on timetabling, numbers and credits potentially limits breadth in teaching and learning in physical education. Holistic learning where health and physical education is learnt "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008), free from dichotomous thinking, is undermined.

The potential for curriculum, pedagogy and assessment (Penney et al, 2009; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins, 2003) to be integrated, and planned for, is potentially undermined if the prime focus shifts to number of credits for assessment. It appears assessment is driving the programming and pedagogy at School A, as standard selection became all about the credits. The focus on credits was illustrated by Anna:

So, our girls, overall, generalisation, score a lot of credits, we don't have to chase every credit and to give them balance in their year and wellbeing and manage stress, um, if we put this in, we would almost be overloading the course.

Furthermore, the number of credits opted into was closely aligned with the assumption that socio-critical standards were non-practical. Therefore, non-selection of socio-critical standards took place and a body-mind dichotomy occurred (Brown & Penney, 2012; Penney & Hay, 2008; Penney et al, 2009; Sullivan 2013, Thorburn, 2007; Thorburn & Collins 2003, 2006a, 2006b). Dichotomous relationships were again highlighted when Anna said:

In the past in these years to do a full course I think was 24 credits, and our girls are doing more subjects than most other state schools, Um so we, to offer a full course we only had to offer 18 credits. Then that was the one that was chosen to be dropped, because we were trying to make the course as practical as possible and it wasn't felt that that standard would give the girls a, the practical outlet. ---They get a lot of these skills from other curriculum based areas, it almost felt like a bit of replication.

5.5.2 Course Endorsement and Academic Achievement

A further example of assessment driving the teaching and learning programme (Penney et al, 2009) was acknowledged where course endorsement became a strong consideration. The only shift in standard selection, from the time that the data was collected at School A is with AS 90070. To begin with, the staff did not select this standard. Whereas now the students may choose to select the standard as an optional extra. This appears to be occurring for the sole reason of gaining course endorsement; this involves the number of credits achieved with Merit or Excellence. Even though students can select the standard, the teaching and learning programme does not support it. Instead, students complete this in their own time. This concern highlights again that assessment is driving learning in School A. The data confirmed the focus on course endorsement. Jessica stated:

We're actually doing that now, um, ...actually introduced it last year as an optional standard for Year 11, um, because it was introduced after the year started the girls actually had to do their tutorial time during their lunchtimes and so all of it was actually done out of class time, but in essence, that has allowed students to get

course endorsement. So we've now incorp, this year we have incorporated into the structured classroom time programme, obviously, for homework as well, um, but letting the girls, opt into it, and I just actually did a tally up last night, of the options, there is only 25 students in the whole cohort that have opted not to do it.

It could be argued that the self-selection and completion of the standard in their own time has continued the focus on assessment. Therefore, even though an explicitly socio-critical standard has been self-selected, the consideration and planning of curriculum and pedagogical practice from the teacher is absent as the students are driving this. Many scholars would suggest this does not allow for authentic assessment to occur (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & Macdonald, 2010; Penney et al, 2009; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003).

In School A the focus is not just on course endorsement. There is also a strong focus on academic achievement as a motivation, intrinsically for girls and extrinsically through school structures such as scholar badges. Anna stated this explicitly, when she said:

I'd say 80% of girls have actually enrolled for it because they see it a way, as a way to get endorsement, certification and also to go for scholarship, scholars badges in this school.

This comment highlighted a culture of performativity (Hay, 2008), which is overt through the institution of practices such as scholar badges and the expectation of students' high academic achievement across the school.

5.5.3 Legitimisation of Physical Education and Parental Perceptions

Within School A, there is a culture of performativity apparent in course endorsement and academic achievement considerations. Due to this culture, the legitimisation of physical education as sports science and consideration of parental perceptions on standard selection have been a strong influences. This was highlighted when Jessica said:

Put it this way, we've actually renamed, retitled the course to sports science, so that our parents understand, or better understand the nature of what the learning is like,

in those senior courses, because, their perceptions are that PE is just out there playing games.

Standard selection data in phase 1 of the research showed a focus in School A on standards which are explicit in biophysical knowledge. Literature shows that within biophysical discourses, consideration is of 'man as a machine' to be trained for economic productivity (Charles, 1979). Theoretical aspects of physical education that tend to privilege empirical-analytical sciences, and are seen as 'technocratic' (McKay et al, 1990), sit well within these discourses. McKay et al (1990) suggest technocratic physical education is underpinned by professional values and practices reflecting a 'scientised' approach. School A appears to be engaging with these discourses as a way to validate and legitimate physical education.

The culture of performativity aforementioned aligns well with the scientific focus. With this in mind, it is important to note that the teachers interviewed in this project at School A have been teaching for an average of 26 years. The length of time in practice and era of professional training should also be a consideration in engagement with these discourses (Kirk et al, 1997). In addition other factors influencing engagement can include teachers' own schooling experience, their teacher education experience, their perceived strengths and knowledge, pedagogical beliefs, and resourcing issues (Kirk, 1986; Macdonald et al, 2002; Kirk et al, 1997). Hence authentic assessment and standard selection, are negated and influenced by a teacher's own habitus (Bourdieu, 1997), beliefs, value orientation, language and pedagogical practice (Hay, 2006 & 2008, Gillespie, 2003 & 2011). In this case, this involves the prioritisation of biophysical discourses to legitimise health and physical education.

5.5.4 Status Quo

A continuing pattern of non-selection of socio-critical standards, apart from the optional selection of AS 90070 has occurred at School A. While shifts to foreground socio-critical discourses are both explicit and implicit in the context of the HPENZ curriculum and NCEA Level 1-3 (Bowes, 2010a & 2010b, Bowes & Bruce, 2011Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014, Penney & Jess, 2004, Penney *et al,* 2009). The findings from this project suggest that the same shift in engagement with these discourses is not apparent in all schools. School A has continued in the same manner,

continuing with the status quo on standard interpretation and non-selection arising from this. Anna reflected:

> *I guess, change is hard to implement at this school, so it's easier to go with the status quo, rather than ---look at it again, ummm, we do massive reviews at the junior level but, to be honest, I don't know if we really review the senior course, like, I know the students give evaluations, ummm, but I would question, whether we as a department address the whole, senior delivery and that might come about because we have small numbers at the moment, where as if we had multiple classes, I think, we would find that would happen as a natural process of having, two teachers teaching side by side. Whereas you're very much in isolation, you get your course and you go with it.*

Literature again considers that a teacher's own habitus (Bourdieu, 1997), beliefs, value orientation, language and pedagogical practice (Hay 2006 & 2008, Gillespie, 2003 & 2011) can be an influence on continuation of the status quo. "You don't know what you don't know" and therefore what one brings with them and the "lens" they adopt in consideration of curriculum, assessment and pedagogy must be considered. Continuing non-selection from School A would concur with the work of Gillespie (2011) who considers the differences in value orientation as particularly important in the context of a curriculum that has an explicit socio-critical orientation. Even more pertinent in this case is the influence this has on assessment practice associated with this.

5.6 Interpretation as an Influence on Selection of Socio-critical Standards

5.6.1 Socio-critical Standards, Inherently Practical

In comparison with School A, data from School B showed that practical physical education is being embedded in the socio-critical standards. This contrasted between the two schools and for this reason the socio-critical standards were selected and applied in a practical context across all three levels of NCEA. Mary noted that in AS 90070:

...we looked it at it through a range of activities, I think so, if I can remember rightly we looked at the way, we had various sports and we tried to look at different types of sports I think, yeah we had sumo, we had netball, we had beach volleyball, so we were looking at how, um those athletes or how those sports are portrayed um by people and also what factors influence peoples' perception, um, with that one.

As can be expected, interpretation of socio-critical standards being inherently practical means that the dichotomous thinking around practical/theoretical knowledge and health/physical education based knowledge as separate, were not apparent. Similar to the Level One AS 90070 aforementioned, at Level Two AS90437 was also interpreted and applied with a practical focus. The intent of AS 90437 was considered practical by nature by Mary who stated:

… last year they did the, or two years ago they did world cup, so that was in 2010, so the practical went alongside that was a football world cup so each class had a tournament, had countries, had teams, competed against each other that they organised themselves.

This pattern of interpretation of socio-critical standards as practically based and providing a broad assessment to support their teaching and learning programme, was apparent in the findings for School B across all three levels of NCEA. It appeared in the data that School B is more aligned to the learning in physical education being "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008) and exemplified in selection of the socio-critical standards and applying the learning behind them in a practical nature. In doing so alignment of curriculum, assessment and pedagogical practice was more overt. Therefore greater information was gathered to make explicit the alignment of curriculum, assessment and pedagogy and the message systems played out in the spaces between these (Brown & Penney, 2012; Penney et al, 2009, Penney 2012; Penney & Hay, 2008; Sullivan, 2013). Alignment of curriculum assessment and pedagogy is developed below in this discussion.

5.7 Other Influences on Non-selection of Socio-critical Standards

5.7.1 Apparent Student Interest and Relevance

Data from School B showed there was significant consideration of student interest, enjoyment, relevance, passion in both the teaching and learning programme and the assessment programme that aligned to this. 'Relevance' was considered in standard selection and application when Mary stated:

> *…so we've looked in detail at a huge number of factors, um and it was relevant to the students, the students with this one we do now could pick a sport of their choice, so they can use their own, personal experiences, what has effected them participating in skateboarding, um so I think it's students have some of that knowledge…*

It should be noted that when School B used 'relevance' as a consideration, the relevance of 'context' was the focus. When looking critically at the data this 'relevance' could be seen as an assumption in itself. Literature advocates for relevance and student voice as an essential consideration in planning for curriculum, assessment and pedagogical practice (Brooker &Macdonald, 1999; Gard et al, 2012; Hastie et al, 2012; Penney & Chandler, 2000). The consideration of these was more apparent in the data arising from School B as the standards were selected and applied, therefore applied practice was more obvious. For this reason, passions and interest were acknowledged in the selection and application of the socio-critical standards as explained by Mary:

> *…they could bring prior knowledge from Level 1 but also from outside and it is also something that a lot of the students do have opinions on, do enjoy finding out about and looking into research etc… um and it was something that you know, they had that passion to do.*

In addition to passions, enjoyment was also prioritised in standard selection and application. Jane reflected on the continuing selection and practical application of AS 90070 when she stated:

... we enjoyed the practical part because we did different sports, we looked at sumo wrestling, and my memories, going back now, but that sort of springs to mind, beach volleyball and those sort of activities, ah the kids really enjoyed doing those.

In allowing for student voice and relevance, School B, in the context of socio-critical standards, has shown a different pedagogical lens to that arising in the data at School A. A more student-centred lens and pedagogical practice has been adopted at School B when interpreting and applying standards and in the teaching and learning that underpins this. There seemed to be greater consideration of relevance of student voice and consideration of their values in programming at School B, as put forward in the literature (Brooker & Macdonald, 1999; Gard et al, 2012; Hastie et al, 2012; Penney & Chandler, 2000).

5.7.2 Teacher Interest and Passion

Teacher interest and passion in both the teaching and learning programme and the assessment that aligned to this was indicated in the data for School B. As a result the standard selection and application clearly highlighted consideration of the teacher, with several comments from Mary such as:

I think again, it's done, the teachers enjoyed that standard, there was the flow on from Level 1 and onto Level 3... so um yeah we've brought it back in, from teacher passion, student voice and um, just the transition from Level 2 as well.

She also stated:

with that standard again, um, it was something, um, progression through Level 1, Level 2, the teachers really enjoy that one as well.

Hence the department programming and, in turn, the rotation of teachers were influenced further by ensuring teacher interest in content. Mary highlighted this when she stated:

Yeah, I think, as a teacher you need to be interested in the topics and the content that you are teaching, um, it can't totally drive the standards you pick, because, we try and have a rotation where we teach as a teacher in a year level for 3 years and then rotate off and new teachers, in, so, I think you've got to have, you know, sort of, I want to enjoy what I'm teaching and have that in-depth, knowledge in that area.

The data clearly showed the consideration of both students' and staff's passions and interests in programming considerations. In contrast to School A, the teachers interviewed at School B have been teaching for on average eight and a half years. Literature has highlighted the differences in teachers' interpretation and application of standards can also be affected by their own schooling experience, teachers' education experience, perceived strengths and knowledge, pedagogical belief, and resourcing issues (Kirk, 1986; Macdonald et al, 2002; Kirk et al, 1997). The contrast of years of service and the era of initial physical educator training of the teachers at the two schools in the case study could be an additional factor influencing interpretation and application of socio-critical standards. Contrasts are obvious in the schools' data and as stated earlier, the literature would concur that the teacher's own habitus, beliefs, value orientation, language and pedagogical practice are a strong influence on the interpretation and application of curriculum, assessment and pedagogy and the complexity involved within this (Hay 2006 & 2008; Gillespie, 2003 & 2011).

5.7.3 Variety of Learning Pathways and Progressions

Variety of learning pathways and progression were considered at School B in selecting and applying the standards, specifically relating to NCEA physical education. This consideration allowed the possibility for socio-critical discourses to be applied in practice (Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Cliff, 2007; Cliff, 2012; Culpan & Bruce, 2007; Gillespie & Culpan, 2000; Gillespie & McBain, 2011 & 2014; Ross, 2001; Sparkes, 1996; Tinning, 2002). Findings for standard selection and application at School B showed that variety, different pathways and progression were a consideration in both the teaching and learning and the assessment that aligned to this. Mary articulated this clearly when she stated:

… so when we're picking our standards because we have Level 1, 2 and 3 full NCEA course so 20 credits, we also have applied PE courses at Level 1, 2 and 3 and we have um outdoor ed at Level 2 and 3 and plus a senior sports performance at Level 2 and 3. So what we do is we try to look at ones so we are not double dipping, it gives

students an opportunity to do outdoor ed, they can also do PE, they can't to PE and applied so we never cross over there so we try to look at standards that are suitable for applied they only do 14 credits and we look assessments and also look at the standards that are suited to them and sort of what they would get out of it for maximum achievement really and then for the Level 1, 2 and 3 full NCEA courses um we look at ones that are so that there is progression throughout the years so Level 1 with a good flow on to, Level 2, Level 3.

The selection of socio-critical standards was seen as influenced strongly by a need for balance and variety in programmes. Socio-critical standards were seen as "different" to other standards and therefore added breadth to the teaching and learning at School B. Jane commented on this intent to balance when she stated:

…it's different to the other standards, so it's different to your anatomy, it's different to your strategies and things like that, so, it sort of gives the kids a bit more of a broader physical education experience, um, at the time we wouldn't have had health, it's a little bit sort of health, which may have been why it was selected.

While the 'socio-critical standards' were seen as different to others, the assumptions that these standards were non-practical and involved siloed health-based knowledge, were not apparent. There was a mention in the data of "health", in comparison though there was no evidence of the dichotomous thinking around this being separate to physical education-based knowledge. Once again the data showed that School B seemed more aligned to the learning in physical education being "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008). Showing a more holistic focus in through and about movement, when aligning curriculum, assessment and pedagogy.

5.8 Reflection and Action

In School B teachers appeared to be involved in an on-going process of reflection and action. They appear to use a process that develops a negotiated curriculum that considers social justice, student voice, individualised teaching, and a student centred approach (Brooker and Macdonald, 1999; Gard et al, 2012; Hastie et al, 2012; Penney & Chandler, 2000). Examples of School B and their use of on-going modifications and reflections on the

teaching and learning programme reflect this consideration of student voice and choice. This has influenced the teaching and learning programme and the assessment aligned to this. Not only was this clear in the selection of standards, but also in the actual application of the teaching and learning that underpin theses standards. Reflection and action over time showed on-going shifts in content and contexts applied. Mary made that clear for AS 90070 when she stated:

> *We chose to do that one as a school because we felt it was relevant to the students, it got the students to think, um we changed it slightly from the old one it was always an exam that they would sit, that one, and we looked at, yeah, factors that did effect self others and society, but now we've gone more into detail and we've looked at different aspects of, we've looked at peers, we've looked at commodification, so we've looked in detail at a huge number of factors, um and it was relevant to the students, the students with this one we do now could pick a sport of their choice, so they can use their own, personal experiences.*

Ongoing reflection and action was also shown to be in line with relevance of context. It is clear in the data above that the ongoing reflection and action has an interrelationship with consideration of relevance and engagement for the students as previously discussed. In doing so, a negotiated curriculum is more apparent in line with recommendations in the literature (Brooker and Macdonald, 1999; Gard et al, 2012; Hastie et al, 2012; Penney & Chandler, 2000).

5.9 Curriculum, Assessment and Pedagogy

In the two case studies contrasting evidence arose in relation to the different interpretation, selection and application of socio-critical standards. It was also apparent that there are dichotomies that can come into play in these processes. Dichotomous thinking as highlighted in Table 11 show the tensions involved through the competing biophysical and socio-critical discourses and engagement with these. Dichotomies will be expanded on below.

In addition to the dichotomies, the findings highlight the importance of aligning curriculum, assessment and pedagogy and we need to avoid narrowing the physical education experiences of students in NCEA Levels 1-3. Teachers' own habitus, beliefs, value

orientations, languages and pedagogical practices have been shown to have a strong influence on how teachers interact with and align curriculum, assessment and pedagogy (Hay 2006 & 2008, Gillespie, 2003 & 2011). Previous research has highlighted the importance of teachers' understanding of the tensions, knowledge structures, power relations at play between these three and consider this in their reflection and action as educators (Brown & Penney, 2012; Gard et al, 2012; Gillespie & McBain, 2011 & 2014; Penney et al, 2009; Penney & Hay, 2008; Penney, 2012; Sullivan 2013). Penney (2012) draws on the work of Bernstein (1990, 1996, 2000) in highlighting the tensions and spaces between these. What has become apparent through this comparative case study is that as educators we must be aware of these tensions and engage critically with them in a conscious manner. Penney (2012) alludes to the fact that:

> *Whether or not we choose to consciously engage with those tensions and possibilities, and 'with what agendas' we engage, are matters of professional choice. In foregrounding the notion of policy and pedagogic action, my emphasis is that any and all aspects of decision- making and practice relating to curriculum, pedagogy and assessment in physical education need to be acknowledged as serving to reaffirm or challenge current inequities that are grounded in the knowledge structures of our field (p.13)*

In the context of this project, on the one hand teachers can take on board influences such as biophysical discourses, school structures, legitimisation, parental perceptions, academic achievement, and keeping the status quo. As a result teachers may interpret socio-critical standards as practical or theoretical, separating health-based knowledge from physical education-based knowledge, thus being drawn into dichotomous thinking. In contrast teachers can choose to be influenced by and draw on student passions/relevance, teacher passions/interests, thus ensuring variety and progression. Teachers can interpret standards as inherently practical and apply learning in a holistic manner, in, through and about movement.

As indicated above, this study has highlighted the impact that dichotomous thinking about NCEA standards can have on teaching and learning in a school. Non-selection of socio-critical standards due to this dichotomous thinking can undermine the consideration of curriculum and pedagogy in programming. The space in between curriculum, assessment and pedagogy is made redundant when non-selection occurs, allowing for a lack of

creativity and acceptance of the status quo. Data showed that in School A assessment is driving learning. In contrast, School B allowed for more of a negotiated curriculum, student voice, teacher interest and variety and progression. Less dichotomous thinking was apparent and there was greater consideration given to curriculum, assessment and pedagogy being aligned. Hence, the space between the boundaries of curriculum, assessment and pedagogy can be creatively adopted. Penney (2012) notes that:

> *...policy developments present opportunities and 'spaces for action' through creative interpretation, selective adoption and adaptation of discourses.*

School B has therefore utilised "spaces of action" in a creative way and this has allowed them to use student voice and choice. School B appeared not to engage with the dichotomous thinking apparent in School A.

The data and literature show that interpretation, selection and application of standards in schools, continues to inform and limit understandings of what constitutes legitimate and valued practice and learning in physical education (Penney, 2012). For example, sticking to the status quo could contribute to a narrowness of programmes, which in turn leaves valuable aspects of learning such as socio-critical aspects untouched. Interpreting 'socio-critical standards' as non-practical can also contribute to a narrow teaching and learning programme. Rather than learning holistically "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008), a disconnected, siloed programme can be the outcome. A broader programme considers relevance for the learner, is free from dichotomous thinking and assumptions such as 'socio-critical standards are non-practical'. More holistic programmes allow for 'spaces of action' between curriculum, assessment and pedagogy (Penney, 2012) and the potential for creativity within these.

5.10 Conclusion

With a gap in the research that addresses standard interpretation, selection and assessment practice, this research provides insights into assessment practice in NCEA Level 1-3 physical education. Insights into assessment practices and the complexities associated with this have arisen through the case study using an inductive, exploratory approach. The findings have been discussed

A comparative analysis, which revealed that many findings in this project have also been observed in scholarly research on assessment practice in physical education. Similarities include: dichotomies and tensions in HPE; teachers' habitus, values and beliefs, and the influence of these on programming and assessment decisions; and issues with the alignment of curriculum, assessment and pedagogy. The insights of this study show that differing physical education experiences and outcomes for learners are dependent on the discourses engaged with, and how curriculum, assessment and pedagogy are aligned. Data highlighted the need for critical reflection and action by teachers in schools. In addition, an awareness of assumptions in programming and assessment practice is needed to challenge the status quo (Brown & Penney, 2012; Gard et al, 2012; Gillespie & McBain, 2011; & 2014; Penney et al, 2009; Penney & Hay, 2008; Penney, 2012; Sullivan 2013). In doing so learning can occur more holistically "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b, Bowes & Bruce, 2011; Brown, 2012; Brown & Penney, 2012; Culpan, 2004, Penney & Hay, 2008).

The discussion has also revealed areas requiring further research which will be discussed within Chapter Six. This would facilitate more accurate and meaningful conclusions about teaching and learning and assessment experiences for secondary school students in NCEA physical education. It would also benefit the physical education sector that currently engages with the NZC (MoE, 2007) and the assessment aligned to this.

Chapter 6: Conclusion

6.1 Introduction

The intent of the study was to gain insights into assessment practice in New Zealand NCEA Level 1-3 physical education by giving teachers a 'voice' within the HPE assessment discourse. Factors influencing standard selection, interpretation and application of socio-critical standards have been explored inductively. The focus of this chapter is to provide a context within which to place these insights. This is achieved by presenting a summary of the key findings for the research questions, followed by consideration of the limitations of this inquiry. Implications of this inquiry are explored for relevant groups including educational policy developers, senior secondary HPE teachers, HPE teachers more broadly, HPE departments, pre-service teacher educators, and research. In addition an extensive list of recommendations for further research has been made. The chapter concludes with a reflection on this exploratory case study inquiry.

6.2 Summary of Key Findings

The inquiry addressed the following research questions:

Question One: What factors are influencing schools' decisions about selection of standards – and specifically those standards explicitly acknowledged as 'socio-critical'?

Question Two: How are teachers interpreting and applying socio-critical standards in senior physical education?

Question Three: What are the intended student outcomes of implementation of the socio-critical standards?

The national data collected and analysed showed significant findings in regard to selection and non-selection of standards. Notably, the national statistics showed a lower rate of selection of the targeted socio-critical standards. The data highlighted clear linkages between issues of interpretation and selection of standards; the discussion that follows reflects this.

Overall, the factors influencing selection / non-selection of socio-critical standards are complex and decision-making about selection can involve dichotomous thinking. The data provided insight into the different pedagogical experiences of students in HPE teaching and

learning programmes and assessment associated with this. In addition, teachers' own habitus, beliefs, value orientation, language and pedagogical practice were shown to have a strong influence on the alignment of curriculum, assessment and pedagogy. The study highlights the importance of teachers' understanding of the tensions, knowledge structures and power relations at play between these three arenas of practice and to consider these in their reflection and action as educators. Furthermore the alignment of curriculum, assessment and pedagogy, continues to inform and limit understandings of what constitutes legitimate and valued practice and learning in physical education.

Interpretation of standards has been shown as a major factor influencing schools standard selection and the resulting application of these in teaching and learning programmes when selected. Inter-related factors influencing standard selection / non-selection included; dichotomous thinking, assumptions and interpretation.

A key influential factor was dichotomous thinking amidst interpretation of standards. This centred on socio-critical and biophysical discourses, theoretical and practical knowledge and learning, body and mind, and physical education and health as separate knowledge bases. Less dichotomous thinking was evident when socio-critical standards were selected. In the data arising from School B, the socio-critical standards were seen as inherently practical and were therefore selected. In contrast to this view, the assumption was made in School A that socio-critical standards are non-practical. The interpretation as non-practical alongside a desire to ensure physical education is as practical as possible meant that non-selection occurred in School A. Furthermore, the assumption that physical education and health are separate knowledge bases was found to influence non-selection. Insights from the data show that when dichotomous thinking on 'socio-critical means health', HPE experiences can be limited by the narrowing of programmes.

Additional factors influencing non-selection of socio-critical standards included school structures and systems. Data clearly illustrated that school structures and systems, including timetabling, numbers and credits across the whole school, were notable influences on standard selection and programming of teaching and learning. Likewise course endorsement and academic achievement were influencing factors when a culture of performativity was reflected in a focus on credit numbers and achievement levels. Legitimisation of physical education and parental perceptions arose as factors influencing non-selection in the data.

Legitimisation occurred through a 'scientised' approach, echoing observations made internationally by Green (2005).

Finally, the ongoing pattern of non-selection highlighted a continuation of the status quo in programming and assessment practice. The 'perhaps' unintended outcome when non-selection occurs is a particular (narrow) view of assessment. Further factors influencing selection of socio-critical standards included 'apparent' or perceived interest and relevance to students. In school B there seemed to be greater consideration of relevance of student voice and consideration of their values where socio-critical standards were selected. Teacher interest and passion was a factor influencing selection of socio-critical standards. A variety of learning pathways and progression and a process of on-going reflection and action were also evident in the data involved with standard selection.

6.3 Limitations

As with all research, there are limitations to this inquiry. Firstly, this study focused on two schools rather than a larger target population, limiting the breadth of the inquiry. This was, however, a conscious decision, designed to facilitate depth of inquiry. The intent was not generalisation to all secondary schools from the insights gained from the two schools involved in the comparative case study. However, this was an exploratory study into NCEA Level 1-3 physical education, designed to reveal new understandings rather than provide generalisations or formulate theory about assessment practice.

An additional limitation was the small sample of teachers in each school. With the HOD and one other chosen as teacher participants, the findings in this inquiry reflect a small sample of teaching and learning and assessment practice in HPE. For this reason data may not reflect the teaching and learning and assessment practice of the whole department in each school. However, the data arising from the two teacher participants in each school were consistent with each other.

A commonly reported limitation in a qualitative study is the bias that a researcher who is closely associated to a case will bring. This potential for bias has been acknowledged and discussed in the research methodology chapter. I had prior knowledge of the cases due my experience as both a schoolteacher and National Assessment Moderator for NZQA. This may have increased the risk of confirmation bias (Nickerson, 1998) in which the researcher

may unwittingly treat data selectively "when a valued belief is at risk" (Nickerson, 1998; p. 205). Throughout the study I was aware of this and therefore particularly sensitive to data that challenged holistic teaching and learning "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b; Bowes & Bruce 2011; Culpan, 2004; Brown, 2012, Brown & Penney, 2012; Penney & Hay 2008). Furthermore, I was sensitive to data that challenged the search for 'authentic assessment' arising from alignment of curriculum, assessment and pedagogy (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 & 2008; Hay & MacDonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009).

In relation to data collection, Creswell (2003) acknowledges limitations of interviews including indirect information through the lens of the participant, information is gathered in a designated place rather than the natural field setting, and the presence of the researcher may bias responses. Teachers being interviewed may have provided answers they thought were desired as opposed to their true thoughts and feelings. For example, teachers may state what they believed I would think is 'good pedagogical practice'. In addition, the teachers were aware of the fact I had former experience as a teacher and National Assessment Moderator which may have increased their desire to respond in the 'right manner', in order to please me. This is particularly a risk when the researcher is in a position of perceived authority (Snook, 2003). Therefore, conflict of role was transparent to participants in the ethical aspects of this project through the participant information material.

Research interviews were only with teachers and so while insights into teacher practice were evident, the actual outcomes of teaching and learning programmes, were not confirmed by students. Therefore a limitation of the research was not having student voice in the 'actual outcomes' teaching and learning and assessment practice. Furthermore, insights that could have come from observations and further analysis of teachers' documents / student work could have also allowed greater depth to the inquiry.

In addition the semi-structured interview method for gathering data may have been a limiting factor. As this was an exploratory study, the researcher avoided pointing or directing questions to ensure results were inductive. However, many themes may have been missed as a result of the limited questioning technique of the researcher.

6.4 Implications of this Inquiry

As discussed in Chapter Two, shifts to foreground socio-critical discourses are both explicit and implicit in the context of the HPENZ curriculum internationally (Brown & Penney, 2012; Cliff, 2007; Cliff, 2012; Penney & Hay, 2008) and in NZ within NCEA Level 1-3 (Burrows, 2005; Culpan, 2005; Culpan & Bruce, 2007; Gillespie & McBain, 2011 & 2014; Penney & Jess, 2004, Penney *et al,* 2009). This inquiry has shown that the intended and actual outcomes of this shift are highly dependant on teaching and learning programmes and the assessment practice associated with this. The following section expands on the implications of these findings. Implications considered from the perspective of a range of audiences, namely; those involved in educational policy development and implementation, HPE teachers, senior secondary HPE teachers, HPE departments, pre-service teacher educator programmes, senior secondary educators in general, and researchers.

6.4.1 Implications for Educational Policy Development

The findings in the research and the literature have reaffirmed the complex dynamic between the assessment frameworks, standard selection and the interpretation that underpins the HPE curriculum and pedagogy. Teachers' own habitus, beliefs, value orientation, language and pedagogical practice have been shown to have a strong influence on interactions with and alignment of curriculum, assessment and pedagogy (Hay, 2006 & 2008; Gillespie, 2003 & 2011). Findings of this study have highlighted the importance of teachers' understanding of the tensions, knowledge structures, power relations at play between these three and consider this in their reflection and action as educators (Brown & Penney, 2012; Gard et al, 2012; Penney et al, 2009; Penney, 2012; Sullivan 2013). Penney (2012) draws on the work of Bernstein (1990, 1996, 2000) in highlighting the tensions and spaces between these.

What has become apparent through this comparative case study is that educators need to be aware of the tensions between curriculum, assessment and pedagogy, and engage critically with them in a conscious manner. For this to occur, it is essential that those involved in educational policy and practice develop increasing awareness of the tensions, knowledge structures and power relations at play. In doing so there is a need to ensure that the curriculum supporting documents, on-going professional development and exemplars of 'authentic' assessment in action are funded and provided for all. Only then can a shift occur from the strong influence that can occur from teachers' own habitus, beliefs, value

orientation, language and pedagogical practice. In doing so, the 'macro' work of policy and curriculum development can be realised at a 'micro' level in practice.

Therefore there is a need for the senior physical education policy/guidance space to look for initiatives and developments in relation to the standards if further generation of the sort of dichotomies referred to in this inquiry are to be avoided. Further development of tools to support a socio-critical pedagogy in practice should also be made accessible in order to be utilised (Bowes & Bruce, 2011, Gillespie & McBain, 2011 & 2014).

Initiatives could also include the development of exemplars of quality teaching and learning programmes, where curriculum, assessment and pedagogy are considered and aligned. A variety of contexts would need to be exemplified to reflect that 'one size does not fit all'. Exemplars would also need to consider both biophysical and socio-critical aspects, to minimise dichotomous thinking highlighted in the findings of this research. Professional development, involving dialogue with the HPE sector would also need to occur. Only then can we truly realise the place, purpose and potential of senior physical education that is underpinned by and expresses socio-critical discourses.

6.4.2 Implications for the Senior Secondary HPE Teachers

The data and literature show that practice in schools, which is influenced by teacher's own habitus, beliefs, value orientation, language and pedagogical practice has been shown to have a strong influence on interactions with and alignment of curriculum, assessment and pedagogy (Hay, 2006 & 2008; Gillespie, 2003 & 2011). In addition, this practice continues to inform and limit understandings of what constitutes legitimate and valued practice and learning in physical education (Penney, 2012). For example, sticking to the status quo could contribute to a narrowness of programme, which in turn leaves valuable aspects of learning untouched. Equally, interpreting 'socio-critical standards' as non-practical can also contribute to a narrow teaching and learning programme. Rather than learning holistically "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b; Bowes & Bruce 2011; Culpan, 2004; Brown, 2012, Brown & Penney, 2012; Penney & Hay 2008), a disconnected, siloed programme can be the outcome. A broader programme, considers relevance for the learner, is free from dichotomous thinking and assumptions, such as 'socio-critical standards' are non-practical. There is a need for teachers to be aware of the particular ways in which standards can be interpreted. An awareness is needed of this

interpretation as a potentially limiting factor within teaching and learning programmes and the physical education experience.

6.4.3 Implications for all HPE Teachers

More broadly, all HPE teachers need to be aware of the complexities involved in teaching and learning programming and the assessment practice associated with this. Greater awareness could enable the development of critically reflective practitioners who ensure assessment does not drive learning, therefore ensuring they use the 'spaces for action', between curriculum, assessment and pedagogy, to be creative (Penney, 2012; Brown & Penney, 2012). The creative use of curriculum, assessment and pedagogical practice will ensure authentic, relevant meaningful learning for all. This involves careful consideration and alignment of curriculum, assessment and pedagogy across all levels of HPE (Gillespie & McBain, 2014).

6.4.4 Implications for the HPE Departments

An additional implication is the need for in-depth discussions about teaching and learning programmes and the assessment that supports these to occur within departments. A productive professional learning process for departments should include: engaging in shared reflection about current provision, including the factors driving it; ongoing discussion around how they are thinking about the standards in relation to aspects of dichotomous thinking in HPE; and personal beliefs and values. Interpretations and selection of assessment pathways must also be carefully considered. In particular, there is a need to critically engage with historical patterns and assumptions in order to collectively explore possibilities for curriculum, pedagogy and assessment. As a result this challenges the concept of sticking with the status quo (Brown & Penney, 2102; Gillespie & McBain, 2014).

6.4.5 Implications for Pre-service Teacher Educators

As outlined above, this research has shown that practice in schools is influenced strongly by teacher's own habitus, beliefs, value orientation, language and pedagogical practice. In addition data showed the strong influence these beliefs have on interactions with and alignment of curriculum, assessment and pedagogy (Hay, 2006 & 2008, Gillespie, 2003 & 2011). For this reason, pre-service teacher education programmes have an important role to play in developing educators to be critically aware practitioners who will explore and challenge interpretations of standards. Mindfulness of the complexities involved in

developing teaching and learning programmes, and the assessment practice that supports this, is paramount for those with the responsibility for developing beginning teachers. In doing so, future educators are likely to be more capable of implementing creative and holistic teaching and learning "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b; Bowes & Bruce 2011; Culpan, 2004; Brown, 2012, Brown & Penney, 2012; Penney & Hay 2008) in our schools by providing teaching and learning that aligns curriculum, assessment and pedagogy in an authentic and relevant manner.

6.4.6 Implications for Senior Secondary Teachers Working in Other Subject/Learning Areas
While this inquiry was set within the context of senior secondary physical education, there are important implications for all senior secondary teachers. The influence that habitus (Bourdieu, 1997) and value orientation (Ennis, 1992; Ennis & Chen, 1995; Ennis, Ross & Chen, 1992) can have on how educators align curriculum assessment and pedagogy is not just a matter for HPE. All educators need to be aware of and critique their own assumptions and practices in the development of teaching and learning programmes and assessment practices. In the context of the NZC and NCEA, the shift towards a socio-critical pedagogy is reflected across the entire document and assessment framework. Therefore, this inquiry and its findings are pertinent to all areas of learning.

6.4.7 Implications for Research
In terms of the academic body of literature on standard interpretation, selection and assessment practice, this research makes a meaningful contribution through its exploration into assessment practice in NCEA Level 1-3 physical education. Insights have been gained that are not often found in literature on assessment practice and complexities involved in this.

Specifically focusing on NCEA Level 1-3 physical education, and using qualitative research methods, the insights into pathways for New Zealand secondary school students have been explored. In addition, while international literature reflects the need for alignment of curriculum, assessment and pedagogy (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 &; 2008; Hay & MacDonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009), there has been limited research in the context of New Zealand high stakes assessment. From a national research perspective this inquiry has made a contribution to research in senior secondary studies in NZ and in physical education specifically. Some of

the issues this study raises are pertinent for research / researchers in other senior secondary areas to consider.

Internationally this study adds to the body of literature that has engaged with issues of the dynamic between curriculum and assessment in senior physical education. The inquiry has sought to extend understandings of the impact of curriculum and assessment frameworks for the relationships between 'theoretical' and 'practical' knowledge and ways of knowing that have a tendency to be considered legitimate in this context. In addition this study makes an important contribution internationally to research seeking to engage with socio-critical discourses within the nature of HPE.

In addition, the methodological approach adopted in this study has been rigorous. NZQA standard selection data and analysis, and interviews with staff in two schools selected for the comparative case study, suggests robust data collection and has enabled in-depth analysis and discussion. It has also highlighted areas for further research (as discussed in the section below).

6.5 Further Research

As this inquiry was exploratory a wide range of areas for further study have emerged. Firstly, as with many other studies in this field, this inquiry only provides a short-term insight into NCEA Level 1-3 physical education. Longitudinal studies are required to gauge the sustained practice of standard interpretation, selection and application in regards to NCEA Level 1-3 physical education. Revisiting participants in the future to identify and evaluate their practice in the context of NCEA Level 1-3 physical education in an ongoing manner would contribute to a more rigorous understanding of this practice.

Further research into NCEA Level 1-3 physical education is required to gain deeper insights into the diversity of teachers' own habitus, beliefs, value orientation, language and pedagogical practice and in turn their interactions with the alignment of curriculum, assessment and pedagogy (Hay, 2006 & 2008, Gillespie, 2003 & 2011). In doing so, further study will be beneficial for everyone involved in NCEA Level 1-3, thus providing further insights into the complex nature of 'authentic assessment' arising from alignment of curriculum, assessment and pedagogy (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 &; 2008; Hay & MacDonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003;

Penney et al, 2009). Therefore, additional case studies are needed in the context of NCEA Level 1-3 physical education before trends, patterns, generalisations and theory can emerge.

Within the wider range of data collected in this inquiry, areas for future research also emerged. Firstly, teachers' own habitus, beliefs, value orientation, language and pedagogical practice. The impact of these factors has been identified in literature (Hay, 2006 & 2008, Gillespie, 2003 & 2011), however, not in the specific context of NCEA Level 1-3 physical education. Consequently, this is an area that requires further investigation.

Secondly, the search for 'authentic assessment' arising from alignment of curriculum, assessment and pedagogy (Culpan 2008; Culpan & Bruce; 2007; Hay 2006 &, 2008; Hay & MacDonald, 2010; Sullivan, 2013; Thorburn, 2007; Thorburn & Collins 2003; Penney et al, 2009) is an area that requires further depth of research. Just what that 'looks like, feels like, sounds like' in the context of NCEA Level 1-3 physical education is an area for further inquiry as is research into the creative use of 'spaces of action' between curriculum, assessment and pedagogy (Penney, 2012).

Thirdly, there is little research on students' perceptions of teaching and learning and assessment practice in the context of NCEA Level 1-3 physical education. Potentially insights could differ between the intended implementation of this practice and the actual outcomes for the students. For this reason further research from the students' perspective is important.

Finally, inquiry into the search for more holistic teaching and learning programmes "in, through and about movement" (Arnold, 1979; Bowes, 2010a & 2010b; Bowes & Bruce 2011; Culpan, 2004; Brown, 2012, Brown & Penney, 2012; Penney & Hay 2008) should be another focus for future inquiry into authentic, meaningful physical education. In doing so, insights into 'quality' physical education could further empower practitioners.

6.6 Final Thoughts

In my own practice I want to ensure that critical reflection and action occurs in the ongoing development of holistic teaching and learning programmes 'in', 'through' and 'about' movement. I will utilise the 'spaces of action' between curriculum, assessment and pedagogy (Penney, 2012) in a creative, relevant and authentic manner. In doing so, I can

ensure that assessment will not drive the physical education experiences for my learners. I have developed my awareness of the importance of alignment of curriculum, assessment and pedagogy. I am currently teaching in a brand new school with foundation Year 9 students. The school will build up to Year 13 over the next five years. The alignment of curriculum, assessment and pedagogy in this school is paramount. The school is personalising learning, with a student-centred and negotiated curriculum. Socio-critical discourses are being engaged with in an overt manner. I see the potential for further research to be completed by myself, involving action research at the chalk face. Learning is connected, integrated and collaborative; cross-curricular teaching and learning is occurring. The alignment of curriculum, assessment and pedagogy in our school is across learning areas. For this reason, careful consideration of how creative spaces are used, what knowledge is valued, and ensuring knowledge is not framed in a compartmentalised manner, are each areas that require further exploration.

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Appendix 1: Participant Information Sheet. Phase 1: HOD Physical Education.

Project Title: Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

My name is Sally Hart and I am currently undertaking a Masters of Education at The University of Waikato. I am also National Moderator of physical education at New Zealand Qualifications Authority. This research project is distinct from my role at NZQA and your participation and the data arising will not be used in my capacity as National Moderator. Research is solely for my MEd thesis where the researcher is required choose a topic and conduct a research project.

The aim of the project is to investigate the extent and nature of the use of socio-critical standards in NCEA level 1-3 physical education.
The study will investigate:

- What factors are influencing decisions about selection of socio-critical standards;
- How teachers are interpreting and applying socio-critical standards in senior physical education; and
- What are the intended student outcomes of implementation of the— socio-critical standards?

Your participation in the study will involve: One interview that will take approximately 45-60 minutes.
If you agree to be involved, I would like to audio tape the interview. You can request that the tape recorder be turned off at any time. The tapes will be transcribed by me. A transcript of the interview will be sent to you as soon after the interview as possible so that you can verify that it is an accurate record, or for you to make changes, should you so desire. You have the right to withdraw from this study or withdraw information you have provided up until your transcripts are verified.

The information collected will be used to write a research report for my MEd Thesis. It is possible that articles and presentations may also be the outcome of the research. Only I (as the researcher) will be privy to the notes, documents and recordings. My supervisors will have access to the transcripts. However, only I will know the identity of the participants. As per the University's *Ethical Conduct in Human Research and Related Activities Regulations 2008* all non-identifying data (e.g. data sets and transcripts) used for publication will be securely kept long enough to allow for academic examination, challenge, or peer review. This will be at least five years. Identifying data such as consent forms and audio tapes will be securely stored consistent with agreements made under section 9(4) (a) of these regulations. Data storage will be with the Sports and Leisure Department on site at the University of Waikato. Participation in the project will be treated with the strictest confidentiality. No participants will be named in the publications and I will be the only person who knows their identity. At no time will the school's name be used in reporting the research.

All participants involved in the study will be asked to sign a consent form prior to interviews. At the completion of the study you will receive a summary of the main findings. The final report will be submitted for assessment for the Masters of Education from the University of Waikato and a copy of the thesis will be accessible at the University's digital repository: Research Commons. Findings will also be used for publication and conference

presentations. If you agree to be involved in this project I would like you to complete the consent form and return it to me in the envelope provided at your earliest convenience. You have the right to decline being involved in the project.

Thank you in anticipation for your time and help in making this study possible.
If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher: *Sally Hart*
sah65@students.waikato.ac.nz
027 2134 721

Supervisors:
Professor Dawn Penney
dawnp@waikato.ac.nz
(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

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Appendix 2: Consent Form Participants Phase 1: HOD Physical Education.

Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

I have read the **Participant Information Sheet** for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that a transcript of the interview will be sent to me as soon after the interview as possible so that I can verify that it is an accurate record, or for me to make changes, should I desire.

I understand I have the right to withdraw from this study or withdraw information up until the transcripts are verified. I believe that there are no risks to me participating in this study.

I agree to provide information to the researchers under the conditions of confidentiality set out on the **Participant Information Sheet**.

I agree to participate in this study under the conditions set out in the **Participant Information Sheet**.

Signed: _____

Name: _____

Date: _____

Additional Consent as Required

I agree / do not agree to my responses to be tape recorded.

Signed: _____

Name: _____

Date: _____

Researcher:
Sally Hart
sah65@students.waikato.ac.nz
027 2134 721

Supervisor:
Professor Dawn Penney
dawnp@waikato.ac.nz
(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

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Appendix 3: Participant Information Sheet. Phase 1: Principal.

Project Title: Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

My name is Sally Hart and I am currently undertaking a Masters of Education at The University of Waikato. I am also National Moderator of physical education at New Zealand Qualifications Authority. This research project is distinct from my role at NZQA and your participation and the data arising will not be used in my capacity as National Moderator. Research is solely for my MEd thesis where the researcher is required choose a topic and conduct a research project.

The aim of the project is to investigate the extent and nature of the use of socio-critical standards in NCEA level 1-3 physical education.
The study will investigate:
- What factors are influencing decisions about selection of socio-critical standards;
- How teachers are interpreting and applying socio-critical standards in senior physical education; and
- What are the intended student outcomes of implementation of the— socio-critical standards?

I would like to invite the HOD of your physical education department to be involved in one interview that will take approximately 45-60 minutes.

If you agree for the HOD to be involved, I would like to audio tape the interview. The HOD can request that the tape recorder be turned off at any time. The tapes will be transcribed by me. A transcript of the interview will be sent to the HOD as soon after the interview as possible so that they can verify that it is an accurate record, or for them to make changes, should you so desire. They have the right to withdraw from this study or withdraw information you have provided up until your transcripts are verified.

The information collected will be used to write a research report for my MEd Thesis. It is possible that articles and presentations may also be the outcome of the research. Only I (as the researcher) will be privy to the notes, documents and recordings. My supervisors will have access to the transcripts. However, only I will know the identity of the participants. As per the University's *Ethical Conduct in Human Research and Related Activities Regulations 2008* all non-identifying data (e.g. data sets and transcripts) used for publication will be securely kept long enough to allow for academic examination, challenge, or peer review. This will be at least five years. Identifying data such as consent forms and audio tapes will be securely stored consistent with agreements made under section 9(4) (a) of these regulations. Data storage will be with the Sports and Leisure Department on site at the University of Waikato. Participation in the project will be treated with the strictest confidentiality. No participants will be named in the publications and I will be the only person who knows their identity. At no time will the school's name be used in reporting the research.

All participants involved in the study will be asked to sign a consent form prior to interviews. At the completion of the study you will receive a summary of the main findings. The final report will be submitted for assessment for the Masters of Education from the University of Waikato and a copy of the thesis will be accessible at the University's digital repository: Research Commons. Findings will also be used for publication and conference presentations. If you have any concerns over your staff participating in this research please contact either my supervisors or myself at your earliest convenience. You and the HOD have the right to decline being involved in the project.

Thank you in anticipation for your time and help in making this study possible.
If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher:
Sally Hart
sah65@students.waikato.ac.nz
027 2134 721

Supervisors:
Professor Dawn Penney
dawnp@waikato.ac.nz
(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

Consent Form for Participants

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Appendix 4: Consent Form Participants. Phase 1: Principal.

Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

I have read the **Participant Information Sheet** for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I understand I have the right to withdraw staff from this study or withdraw information up until the transcripts are verified. I believe that there are no risks to me participating in this study.

I agree to provide information to the researchers under the conditions of confidentiality set out on the **Participant Information Sheet**.

I agree to participate in this study under the conditions set out in the **Participant Information Sheet**.

Signed: _____

Name: _____

Date: _____

Researcher:
Sally Hart
sah65@students.waikato.ac.nz
027 2134 721

Supervisor:
Professor Dawn Penney
dawnp@waikato.ac.nz
(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

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Appendix 5: Participant Information Sheet. Phase 2: Physical Education Staff

Project Title: Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

My name is Sally Hart and I am currently undertaking a Masters of Education at The University of Waikato. I am also National Moderator of physical education at New Zealand Qualifications Authority. This research project is distinct from my role at NZQA and your participation and the data arising will not be used in my capacity as National Moderator. Research is solely for my MEd thesis where the researcher is required choose a topic and conduct a research project.

The aim of the project is to investigate the extent and nature of the use of socio-critical standards in NCEA level 1-3 physical education.
The study will investigate:

- What factors are influencing decisions about selection of socio-critical standards;
- How teachers are interpreting and applying socio-critical standards in senior physical education; and
- What are the intended student outcomes of implementation of the— socio-critical standards?

Your participation in the study will involve: One interview that will take approximately 45-60 minutes.

If you agree to be involved, I would like to audio tape the interview. You can request that the tape recorder be turned off at any time. The tapes will be transcribed by me. A transcript of the interview will be sent to you as soon after the interview as possible so that you can verify that it is an accurate record, or for you to make changes, should you so desire. You have the right to withdraw from this study or withdraw information you have provided up until the transcripts are verified.

The information collected will be used to write a research report for my MEd Thesis. It is possible that articles and presentations may also be the outcome of the research. Only I (as the researcher) will be privy to the notes, documents and recordings. My supervisors will have access to the transcripts. However, only I will know the identity of the participants. As per the University's *Ethical Conduct in Human Research and Related Activities Regulations 2008* all non-identifying data (e.g. data sets and transcripts) used for publication will be securely kept long enough to allow for academic examination, challenge, or peer review. This will be at least five years. Identifying data such as consent forms and audio tapes will be securely stored consistent with agreements made under section 9(4) (a) of these regulations. Data storage will be with the Sports and Leisure Department on site at the University of Waikato. Participation in the project will be treated with the strictest confidentiality. No participants will be named in the publications and I will be the only person who knows their identity. At no time will the school's name be used in reporting the research.

All participants involved in the study will be asked to sign a consent form prior to interviews. At the completion of the study you will receive a summary of the main findings. The final report will be submitted for assessment for the Masters of Education from the University of Waikato and a copy of the thesis will be accessible at the University's digital repository: Research Commons. Findings will also be used for publication and conference presentations. If you agree to be involved in this project I would like you to complete the consent form and return it to me in the envelope provided at your earliest convenience. You have the right to decline being involved in the project.

Thank you in anticipation for your time and help in making this study possible.
If you have any questions or concerns about the project, either now or in the future, please feel free to contact either:

Researcher:
Sally Hart
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(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

Consent Form for Participants

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Appendix 6: Consent Form Participants. Phase 2: Physical Education Staff

Investigating socio-critical discourses in assessment of senior physical education in New Zealand.

I have read the **Participant Information Sheet** for this study and have had the details of the study explained to me. My questions about the study have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I also understand that a transcript of the interview will be sent to me as soon after the interview as possible so that I can verify that it is an accurate record, or for me to make changes, should I desire.

I understand I have the right to withdraw from this study or withdraw information I have provided at any time. I believe that there are no risks to me participating in this study.

I agree to provide information to the researchers under the conditions of confidentiality set out on the **Participant Information Sheet**.

I agree to participate in this study under the conditions set out in the **Participant Information Sheet**.

Signed: _____

Name: _____

Date: _____

Additional Consent as Required

I agree / do not agree to my responses to be tape recorded.

Signed: _____

Name: _____

Date: _____

Researcher:
Sally Hart
sah65@students.waikato.ac.nz
027 2134 721

Supervisor:
Professor Dawn Penney
dawnp@waikato.ac.nz
(07) 838 4466 ext 7735

Lorna Gillespie
lornagp@waikato.ac.nz
(07) 838 4500 ext 6205

Appendix 7: Interview Schedule HOD:

Length of time: Approx 45-60 mins.
Type of interview: Individual semi structured
Participants: Head of Department physical education

The main research question will be:

What is the extent and nature of the use of socio-critical standards in NCEA level 1-3 physical education?

The key focus of this interview is to investigate:

- *What factors are influencing school's decisions about selection of standards? – and specifically those standards explicitly acknowledged as 'socio-critical'?*

- *What are the intended student outcomes of implementation of the— socio-critical standards?*

Instructions to interviewer (in this case myself as the researcher): The interview is semi-structured so the questions are a guideline only. The interviewer should allow the participants to inform the direction of the interview. As the interview is being audio-taped and transcribed later, there is no need to transcribe answers at the time.
Read the following:

Thank you for agreeing to take part in this interview, the goals of the research is to (Read above questions)…the session is being recorded so that I can transcribe the material at a later date to ensure I do not miss details and so that I can allow you to check the accuracy of the transcript. I have some general questions that I will use to get your thoughts and feedback on issues related to the topic. All data is confidential and will be entirely anonymous. Thank you again for your participation.

Back ground Details:

Position HOD

Work experience:

- Years' teaching
- Years' HOD
- Years' in current school
- Previous schools' taught in

- Who teaches Level 1 in your department?

- Who teaches Level 2 in your department?

- Who teaches Level 3 in your department

Theme 1: Standard selection NCEA Levels 1-3 (2006-2010)

This theme will be informed by the baseline data gathered from NZQA. I will have an understanding of what standards they have chosen/ chosen not to use at each level of NCEA (1-3). The theme will clarify the prioritisation and selection of these standards.

Once the standards have been clarified, I will ask broadly what the key influences have been on this standard selection and I will explain that I will explore other possible issues later in the interview.

Theme 2: Specifically the selection of socio-critical standards
I will now go through a selection of NCEA Achievement Standards and ask you a set of questions for each.

Standards and Titles:

AS90070 (1.4)
Title: *This achievement standard involves exploring different ways the body is portrayed in physical activity and how these portrayals are valued by self, others and society.*

AS90432 (2.1)
Title: *This achievement standard involves examining the relationship between physical activity and health, using evidence from personal participation in physical activity, as well as from other sources, and describing the relationship between physical exercise and health and the implications for self and society.*

AS90437 (2.6)
Title: *This achievement standard requires undertaking an investigation into the sociological significance of a sporting event, physical activity or festival for self, others and society.*

AS90743 (3.5)
Title: *This achievement standard requires an examination of a current physical activity event, trend or issue impacting on New Zealand society.*

Questions for each of the above standards:
- What do you understand the intent of this standard to be?
- Why have you chosen to use/chosen not to use this standard?

If you have chosen to use a standard answer the following…
- Does your department use a TKI task, a modified TKI task, or their own task for this assessment?
- What mode of assessment do you use? Written, verbal, other?
- Is there any practical involved with this assessment? If so what?
- Is there any specific contexts used with this assessment?

If you have chosen not to use a standard answer the following…

- What would need to occur for your department to assess this standard?
- Are the changes to the standards occurring currently having any influence on your schools selection of this standard?
- What do you think will continue to influence your schools' selection of this standard?

Theme 3: Possible range of issues relating to approach to assessment in senior physical education and standard selection
I would like to talk more about a range of issues that broadly relate to standard selection. I will go through a number if possible issues and ask some questions about each.

- Personal philosophy physical education
- Department philosophy physical education
- Past and current colleagues
- Physical education assessment when you were at school
- Assessment of physical education through your teacher training
- Professional development since teacher education
- Experience with standards based assessment
- The New Zealand Curriculum
- Socio-ecological perspective that underpins the curriculum document
- Bio-physical sciences

Questions for each of the above issues

- Tell me about this how you think the issue has influenced you as a physical educator
- Do you see this issue as now influencing your approach to assessment in physical education? If so how?
- Do you see this issue as influencing the process you/your school uses for standard selection for NCEA? If so how?

Are there any other factors/issues that you believe have influenced your beliefs on standard selection for NCEA? If yes what, why and how?

End of interview: Tape to be switched off.

Any further comments by interviewer:

Appendix 8: Interview Schedule additional staff members
Length of time: Approx 45-60 mins.
Type of interview: Individual semi-structured
Participants: Additional member of the physical education department chosen for the case study

The main research question will be:

What is the extent and nature of the use of socio-critical standards in NCEA level 1-3 physical education?

The key focus of this interview is to investigate:

How are teachers interpreting and applying socio-critical standards in senior physical education?
What are the intended student outcomes of implementation of the—
socio-critical standards?

Instructions to interviewer (in this case myself as the researcher): The interview is semi-structured so the questions are a guideline only. The interviewer should allow the participants to inform the direction of the interview. As the interview is being audio-taped and transcribed later, there is no need to transcribe answers at the time.

Read the following:

Thank you for agreeing to take part in this interview, the goals of the research is to (Read above questions)…the session is being recorded so that I can transcribe the material at a later date to ensure I do not miss details and so that I can allow you to check the accuracy of the transcript. I have some general questions that I will use to get your thoughts and feedback on issues related to the topic. All data is confidential and will be entirely anonymous. Thank you again for your participation.

- Name
- How many years' teaching
- How many years' in current school
- Previous schools' taught in
- What levels of NCEA you have taught in the past
- What levels of NCEA you are teaching currently

Standard selection over the years 2006-2010 has been discussed with your HOD, I am going to use this as a basis of where I start with your interview. (Straight to theme 2)

Theme 2: Specifically the selection of socio-critical standards

I will now go through a selection of NCEA Achievement Standards and ask you a set of questions for each. I will only go through standards at the level/s you are personally teaching.

Standards and Titles:

AS90070 (1.4)
Title: *This achievement standard involves exploring different ways the body is portrayed in physical activity and how these portrayals are valued by self, others and society.*

AS90432 (2.1)
Title: *This achievement standard involves examining the relationship between physical activity and health, using evidence from personal participation in physical activity, as well as from other sources, and describing the relationship between physical exercise and health and the implications for self and society.*

AS90437 (2.6)
Title: *This achievement standard requires undertaking an investigation into the sociological significance of a sporting event, physical activity or festival for self, others and society.*

AS90743 (3.5)
Title: *This achievement standard requires an examination of a current physical activity event, trend or issue impacting on New Zealand society.*

Questions for each of the above standards (relevant):
- What do you understand the intent of this standard to be?
- Why do you think the school has chosen to use this standard?
- Does your department use a TKI task, a modified TKI task, or their own task for this assessment?
- What mode of assessment do you use? Written, verbal, other?
- Is there any practical involved with this assessment? If so what?
- Is there any specific contexts used with this assessment?
- Can you give me any further details about the teaching and learning programme that this assessment is linked to?
- What do you want the students to get out of the teaching and learning programme that this assessment is linked to?
- What do you think the students get out of the teaching and learning programme that this assessment is linked to?

Theme 3: Possible range of issues relating to approach to assessment in senior physical education and standard selection

I would like to talk more about a range of issues that broadly relate to standard selection. I will go through a number if possible issues and ask some questions about each.

- Personal philosophy physical education
- Department philosophy physical education
- Past and current colleagues
- Physical education assessment when you were at school
- Assessment of physical education through your teacher training
- Professional development since teacher education
- Experience with standards based assessment
- The New Zealand Curriculum
- Socio-ecological perspective that underpins the curriculum document
- Bio-physical sciences

Questions for each of the above issues

- Tell me about this how you think the issue has influenced you as a physical educator
- Do you see this issue as now influencing your approach to assessment in physical education? If so how?
- Do you see this issue as influencing the process you/your school uses for standard selection for NCEA? If so how?

Are there any other factors/issues that you believe have influenced your beliefs on standard selection for NCEA? If yes what, why and how?

End of interview: Tape to be switched off.

Any further comments by interviewer: