Learning to Teach Health and Physical Education: The Experiences of Elementary Student Teachers

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
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Abstract

This research investigates elementary student teachers’ experiences of learning to teach health and physical education (HPE) in a one-year pre-service teacher education program at Windermere University in Canada. The participants in the research are preparing to become elementary classroom teachers; a group who often recall negative prior experiences of HPE from their time as school pupils and report an overwhelming lack of preparation and confidence to teach HPE. Mixed-methods of data gathering were employed in the form of pre- and post-test surveys of 308 student teachers, and three interviews conducted with a purposive sample of ten student teachers. Four main findings emerged from the research. First, elementary student teachers’ embodied identity as healthy and physically active individuals profoundly shaped their prior experiences of HPE. Second, the 12-hour HPE course offered in Windermere’s pre-service program broadened student teachers’ views of HPE and provided them with some basic strategies for teaching elementary HPE. Third, the practice teaching experience provided some student teachers with opportunities to either observe or to try teaching HPE; few had opportunities to do both. Fourth, there was a positive and statistically significant change in student teachers’ identities as teachers of HPE from the beginning to the end of the pre-service teacher education program. Implications for school HPE, pre-service teacher education
programs, policy regarding teachers of HPE, and future avenues for research are discussed in light of the findings.
Dedication

This dissertation is dedicated to the memories of Tony Fletcher and Dr. Andy Anderson. While deeply missed, both continue to influence my life and work in important ways.
Acknowledgments

As I reflect on my doctoral experience I realize that I have been in the very envious position of having people supporting me who easily fit the criteria of being “good people” and experts. As my supervisor and friend, Professor Clare Kosnik has provided me with unwavering support, detailed feedback, and professional guidance throughout my years at OISE/UT. Clare took me on as a doctoral student when for a time it looked as though I may have to withdraw from the program. For volunteering to mentor me and support my work, I am forever grateful. She and Professor Clive Beck, who sat on my dissertation committee, have taught me a great deal about research, teaching, and most importantly, friendship. Professor James Mandigo from Brock University has provided much needed advice on health and physical education and the methods used in this dissertation. He sets an excellent example to all in our field in Canada and overseas, and I am lucky to have learned so much with him. Professor Nancy Francis served as the external examiner of the dissertation and I would like to thank her for her support and feedback. I look forward to learning and laughing more and working with each of you well into the future.

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Chapter 1
Introduction

1.1 Introduction

The elementary school years are a critical period for helping children develop the physical, social, emotional, and cognitive skills necessary to lead a healthy, active lifestyle (Graber, Locke, Lambdin & Solmon, 2008; Kirk, 2005). In most schools the subject called health and physical education (HPE)\(^1\) is part of the formal curriculum where the benefits of health and physical activity, and the knowledge, skills, and attitudes needed to lead a healthy lifestyle can be taught to all children (Mandigo, 2010). Indeed the United Nations Educational, Scientific, and Cultural Organization (UNESCO) considered the provision of HPE subject matter to be so important that in the *Charter for Physical Education and Sport* it was declared that “every human being has a fundamental right of access to physical education and sport, which are essential for the full development of his [or her] personality. The freedom to develop physical, intellectual, and moral powers through physical education and sport must be guaranteed both within the educational system and in other aspects of social life” (UNESCO, 1978, p.32).

Despite the favourable endorsement made over thirty years ago by UNESCO (1978), Hardman and Marshall (2000, p. 203) suggest that “school PE is in a perilous position in all continental regions of the world”. Based on two worldwide surveys in 2000 and 2009 that assessed the state and status of PE in schools, Hardman and Marshall (2000; 2009) identified four sets of factors that influence the quality of PE and/or Health programs: (a) legal requirements for the implementation of HPE; (b) time allocated to HPE in an already crowded curriculum; (c) subject status and attitudes of educational leaders and stakeholders, such as principals, teachers, or parents; and (d) allocation of financial and human resources to HPE.

The factors identified by Hardman and Marshall (2000; 2009) apply readily to HPE in Canadian schools. Although most Canadian schools are required to provide HPE instruction, in many cases – particularly at the elementary level – it is only partially implemented in accordance

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\(^1\) In the province where the study was conducted the subject areas of Health and PE are merged; in other contexts Health and PE are taught in separate courses but often by the same teacher. Researchers have thus referred to teachers of HPE and PE interchangeably depending upon where the research was conducted. In this dissertation, HPE is used when referring to the teachers and the context being studied, while the terms HPE and PE are used interchangeably when referring to existing research. Further discussion of, and justification for, the terminology is provided later in this chapter in section 1.2.1: Definitions of Terms.
with ministerial guidelines or is not implemented at all (Cameron, Wolfe & Craig, 2007; Dwyer, Allison, LeMoine, Faulkner, Adlaf, Goodman, et al., 2008). Within each individual school, HPE competes with other subjects for instructional time and for funding of its programs and teachers. In the current educational climate in Canada, subject areas such as literacy, numeracy, and information technology take on high priority in terms of funding and reform (Fullan, 2007; Levin, 2008), with “enrichment subjects” such as music, visual art, and HPE falling lower on a list of educational priorities. Of particular concern under the current agenda of reform are government budget cuts and reallocation of funds to the priority areas cited above that have led to a decrease in the number of specialist HPE teachers employed in Canadian elementary schools (Cameron et al., 2007; DeCorby, Halas, Dixon, Wintrup & Janzen, 2005; Mandigo, Thompson, Spence, Melnychuk, Schwartz, Causgrove Dunn, et al., 2004; Robinson & Melnychuk, 2006). Although statistics vary across educational jurisdictions, HPE lessons in Canadian elementary schools tend to be taught by a regular classroom teacher rather than by an HPE specialist (Cameron et al., 2007; Dwyer et al., 2008). A recent survey indicated that in Ontario, classroom teachers are responsible for teaching elementary HPE classes in approximately 63% of cases (Faulkner, Dwyer, Irving, Allison, Adlaf & Goodman, 2008).

Having a specialist teach HPE does not guarantee a quality program, although specialists generally teach better lessons than classroom teachers (Graber et al., 2008; Tsangaridou, 2008). For example, when compared to elementary classroom teachers, HPE specialists exhibit higher levels of effective teaching behaviours such as having well-planned programs, individualizing instruction, providing more opportunities for physical activity and skill development, and having more success in enhancing pupils’ fitness levels (Constantinides, Montalvo & Silverman, 2009; DeCorby et al., 2005; McKenzie, Sallis, Faucette, Roby & Kolody, 1993; Sallis, McKenzie, Alcaraz, Kolody, Faucette & Hovell, 1997). Further, specialists tend to feel better prepared to teach HPE, enjoy teaching HPE more, and are more inclined to devote more time to teaching HPE (Mandigo et al., 2004). Policies that include specific measures to increase the number of specialist HPE teachers in elementary schools – such as those implemented recently in New Brunswick (New Brunswick Dept. of Education, 2008) – may help to improve the quality of HPE programs. However, until a major shift in the focus of reform efforts allows for the majority of Canadian elementary HPE classes to be taught by specialist teachers, understanding and improving how regular classroom teachers think about and teach HPE may be the most manageable way to improve the quality of elementary HPE programs.
1.1.1 The importance of studying teachers

In the past, educational reform initiatives have focused on issues regarding the formal curriculum such as revising course content or implementing standardized tests (Sarason, 1990). One of the limitations of these previous reform efforts may be the teachers who are responsible with implementing the changes at the “ground level”. In support of the important role that teachers play in education reform, several researchers have asserted that the teacher is the key to educational change and school improvement (Cochran-Smith & Lytle, 2009; Datnow, Hubbard & Mehan, 2002; Hargreaves & Fullan, 1992; Richardson & Placier, 2001; Spillane, 1999; Wideen, Mayer-Smith & Moon, 1998). Further, the individual teacher has been identified as the most important factor regarding pupil learning and achievement (Rivkin, Hanushek & Kain, 2005). According to Darling-Hammond (1999):

> While student demographic characteristics are strongly related to student outcomes, they are less influential in predicting achievement levels than variables assessing the quality of the teaching force… teacher quality variables appear to be more strongly related to student achievement than class sizes, overall spending levels, teacher salaries (at least when unadjusted for cost of living differentials), or such factors as the statewide proportion of staff who are teachers. (p. 38)

In recognizing teachers as an integral part of the reform process, several initiatives in Canada have aimed at building the capacity of teachers by acknowledging the importance of teachers’ knowledge and the nature of the school environments in which they work (Levin, 2008). For example, in British Columbia the Lower Mainland Project involved inviting teachers to collaborate with researchers to co-construct instructional strategies aimed at improving practice (Butler, Novak Lauscher, Jarvis-Sellinger & Beckingham, 2004). In Manitoba the Strategic Technology-Assisted Professional Learning Environment (STAPLE) initiative offers collaborative and mentoring opportunities with other teachers in the province to develop new formats for professional learning such as teacher networks, on-line learning, mentoring or self-study. In moving away from “top down” approaches to professional development, the STAPLE project aims to have teachers draw from multiple sources of knowledge derived from many different situations and contexts (Manitoba Education, n.d.).
Teaching is complex and teachers are required to think about and perform many tasks, often simultaneously (Britzman, 2003; Hargreaves, 1994; Kennedy, 2011). Korthagen (2004) has described the task of defining what constitutes “good” teaching as almost too complex a task to undertake. An insight into the complexity of teaching can be gained by thinking about what teachers do in a regular day. For example, they are the primary decision-makers for implementing curriculum, which requires understandings of: subject matter; theories of learning and teaching; and the communities in which teachers are teaching (Darling-Hammond, 2006b). Teachers also need to be able to manage classroom activities efficiently, communicate well, undertake professional development programs, perform administrative duties, and reflect on their practice in order to learn from and improve on it (Connelly & Clandinin, 1988; Darling-Hammond, 2006b; Hammerness, 2006). To accomplish these tasks teachers need to build strong relationships with pupils, colleagues, mentors, parents, and the community. Furthermore, teachers need to engage in ongoing learning about themselves and their practice (Britzman, 2003; Darling-Hammond, 1999; Feiman-Nemser, 2001).

In order to explore and potentially improve how pupils learn in schools, it is essential to study teachers, their personal and professional characteristics, their beliefs, and opportunities for ongoing learning. In summarizing the importance of studying teachers, Feiman-Nemser (2001) suggests that:

Policy-makers and educators are coming to see that what students learn is directly related to what and how teachers teach; and what and how teachers teach depends on the knowledge, skills, and commitments they bring to their teaching and the opportunities they have to continue learning in and from their practice. (p. 1013)

1.1.1.1 Teachers of HPE

Numerous studies have addressed how elementary classroom teachers approach teaching HPE, focusing on aspects such as teaching behaviours (Constantinides et al. 2009), confidence to teach HPE (Faulkner, Reeves & Chedzoy, 2004; Petrie, 2010; Xiang, Lowy & McBride, 2002), perspectives on the barriers to teaching HPE (DeCorby et al., 2005; Morgan & Hansen, 2007; 2008b), and personal HPE biographies (Allison, Pissanos & Sakola, 1990; Garrett & Wrench, 2007; Morgan & Hansen, 2008a; Randall & Maeda, 2010). From these and several other studies, factors have been identified that influence the quality of classroom teachers’ HPE programs.
Morgan and Hansen’s (2008b) studies of practicing and pre-service student teachers in Australia led them to categorize factors that influence the quality of elementary classroom teachers HPE programs as:

- **Institutional factors**: such as amount of instructional time, professional development opportunities, financial and human resources, facilities and equipment, and class sizes; and
- **Teacher-related factors**: such as pre-service teacher education, personal school experiences in HPE, levels of interest in HPE, and confidence to teach HPE.

The classroom teachers in Morgan and Hansen’s (2008b) study felt that the greatest perceived inhibitors to their HPE programs were related to institutional factors, such as lack of time or equipment – factors that were mostly beyond their control. In the absence of large scale reform efforts directed at removing the institutional barriers to teaching HPE, initiatives aimed at helping classroom teachers overcome teacher-related factors – factors over which they do have some control – may provide the most effective means to improve classroom teachers’ HPE programs.

Overcoming teacher-related factors can be difficult and complex, however, when approached with suitable programs that are systematic, offer long-term support, are inquiry-oriented, or are reflective in nature (such as well designed teacher education programs), change efforts are more sustainable when directed at teacher-related factors rather than institutional or curricular factors (Feiman-Nemser, 2001; Hargreaves & Fullan, 1992; Richardson, 1996; Richardson & Placier, 2001; Wideen et al., 1998). Thus, while it is acknowledged that institutional factors influence the quality and implementation of HPE programs, focusing on teacher-related factors may provide more feasible ways to improve how HPE is viewed and is taught in schools.

Ministries of education and administrators can advocate a variety of seemingly worthwhile initiatives but in each classroom it is the teacher who ultimately decides what is taught, for how long, and in what way. Therefore, studies of elementary HPE need to view teachers, their learning, their knowledge, and the environments that they work in as primary influences of meaningful program reform (Hunter, 2006).
1.2 Background to the study

This dissertation is a study of classroom teachers’ learning about HPE in the context of a pre-service teacher education program. One way to understand the teacher-related factors that influence how elementary classroom teachers teach HPE is to focus on their experiences of HPE and physical activity during their time as school pupils and during pre-service teacher education. Among the central tenets of constructivist theories of learning is that knowledge is constructed from reflection on previous experiences (Kirk & Macdonald, 1998; Korthagen, Loughran & Russell, 2006; Light, 2008), a matter discussed in depth in Chapter Two (see section 2.3). For example, in his theory of experience and education, Dewey (1938) explains that reflecting on prior experiences shapes and modifies how we view our present and future experiences. Thus, if an individual has a positive initial experience with a phenomenon, he or she is likely to feel positive about any present or future experiences that he or she may have with the same phenomenon. A similar inference can be made regarding negative experiences. Such notions not only apply to how pupils learn in school, but also to how teachers learn (Hammerness, Darling-Hammond & Bransford, 2005). In regards to learning to teach, the personal experiences of teachers – particularly those gained during their own time as school pupils – are considered integral to understanding teachers’ knowledge and the teaching process (Beck & Kosnik, 2006a; Britzman, 2003; Cochran-Smith & Lytle, 1999; Connelly & Clandinin, 1988; Kagan, 1992; Lortie, 1975; Loughran, 2006; Munby, Russell & Martin, 2001).

In HPE there has been extensive research of teachers’ experiences, exploring the role that previous experience plays in the various dispositions, knowledge, and attitudes that beginning teachers bring with them to the profession (Curtner-Smith, 1997; Lawson, 1983; Stroot, 1993; Templin & Schempp, 1989). Studies of the HPE experiences of classroom teachers have also yielded important findings. For example, Morgan and Hansen (2007; 2008a; 2008b) found that the personal school experiences of teachers have tremendous influence upon and shape teacher-related factors that impact HPE program quality, including classroom teachers’:

- confidence to teach HPE
- interest and enthusiasm for teaching HPE;
- HPE content knowledge;
- attitudes toward HPE, and;
• perceptions of the value of HPE.

While these factors have been addressed in the context of practicing elementary classroom teachers, few have focused on student teachers in pre-service teacher education programs. Research that has been situated in pre-service teacher education has tended to study interventions that have targeted specific teaching philosophies, skills, and attitudinal variables (Curtner-Smith, 2007; Garrett & Wrench, 2008; Humphries & Ashy, 2006; Xiang et al., 2002). Recent evidence suggests that the quality of the HPE experiences that elementary teachers had when they were school pupils and student teachers are significant predictors of the quality of their school HPE program (Morgan & Hansen, 2008a). Of particular concern then are findings suggesting that the pre-service HPE experiences of most elementary classroom teachers have been viewed as inadequate and/or negative (DeCorby et al. 2005; Dwyer et al. 2008; Faulkner et al., 2008; Kirk, 2005; Morgan & Bourke, 2005; 2008; Morgan & Hansen, 2007; 2008a; 2008b; Xiang et al., 2002). Yet, we do not clearly understand the nature of teachers’ HPE experiences as school pupils or as student teachers, such as what made their experience negative. Nor do we know what factors would contribute to making the HPE experiences of elementary student teachers positive. In essence, we have begun to develop knowledge of the products, or outcomes, of the school and pre-service HPE experiences for classroom teachers but know little of the processes.

I share similar views to those of Morgan and Hansen (2007; 2008a; 2008b) in that identifying and overcoming the barriers to teaching HPE are important and necessary steps to be taken if classroom teachers are to teach quality HPE programs. However, knowledge of how these barriers are reinforced, challenged, or critiqued in pre-service teacher education programs remains elusive at this point in time. The ways in which these barriers are addressed may provide insights into developing methods that can help student teachers overcome these barriers once they are employed.

1.3 Research questions

My dissertation study is guided by four broad research questions:
(1) What are the HPE and physical activity experiences of elementary student teachers prior to and during a pre-service teacher education program?

(2) How do elementary student teachers experience the HPE component of a pre-service teacher education program (including the practicum)?

(3) What are elementary student teachers’ views about HPE and teaching HPE, and how does a pre-service teacher education program affect them?

(4) What factors (if any) cause changes in the views, approaches, and practices of elementary student teachers toward HPE and teaching HPE?

Specifically, I address the experiences that elementary student teachers have had of HPE and physical activity, the degree and type of change in pre-service teachers’ HPE experiences and views throughout the teacher education program, and how teacher education programs identify and have student teachers critically reflect on these experiences in preparing elementary classroom teachers to teach HPE. By understanding the factors involved in making both positive and negative HPE experiences, teacher educators may be able to better assist those individuals who are learning to become elementary classroom teachers to find meaningful learning experiences in pre-service teacher education and feel interested in, engaged, and better prepared to teach HPE.

1.4 Positioning the researcher

I have been teaching a pre-service HPE teacher education course similar to the one that is described by the research participants (see Chapter Five) for the past three years. Prior to this, I was a secondary HPE teacher for five years. In sum, I have taught HPE in one context or another for eight years, and before that, studied human movement and recreation as my undergraduate degree, learning about various concepts related to health, physical activity, and the body. Throughout my childhood and adolescence I was heavily involved in sports, playing rugby, cricket, basketball, soccer, handball, competing in track and field and swimming, as well as being generally “on the move” during my spare time. The reason I list these experiences is because I realize that despite learning quite a lot about physical activity and teaching HPE inside and outside of educational settings, I still feel that I have so much to learn. So, you might
understand when I approached this dissertation with the looming question: How can anything be learned about teaching HPE in one brief course?

It should be stated here that my views and assumptions about the HPE experiences of elementary student teachers when I began this dissertation study were shaped largely out of context. This is because in coming to my dissertation topic and during my first year of teaching HPE to elementary student teachers I had not understood their experiences from their point of view. Most of what I claimed to know about their experiences was based on what I had learned from reading journals and books about the matter and also from comparing their experiences (as derived from research) to my own experience. My role as a secondary HPE teacher also led to my views being shaped out of context. While there is indeed some overlap in the knowledge required to teach elementary and secondary HPE, the initial assumptions that I had about what is needed to be an effective elementary teacher did not give sufficient credit to differences that I now see as inescapable. I feel it is important to acknowledge my assumptions here because they may have influenced the ways that the participants interacted with me and responded to the interview questions. Moreover, they would have filtered the way I interpreted data in the analysis phase of the research.

As the reader will come to see, the initial assumptions I had about elementary teachers teaching HPE were partially reflected in some participants’ responses. However, I was also quite happy to learn that some of my initial assumptions were strongly challenged, and have forced me to re-think the implications of having elementary classroom teachers teach HPE.

1.5 Definitions of terms

In this section I define terms used throughout the dissertation. Specifically, the terms Health and Physical Education; physical activity; elementary classroom teachers; elementary student teachers; and teacher education programs are defined.

**Health and Physical Education:** In Ontario, the Ministry of Education calls the subject area that incorporates aspects of healthy active lifestyles health and physical education (HPE), while in some other contexts a more common description is physical education. The Ontario curriculum groups the teaching of health topics and physical education topics under the subject area HPE, while some other provinces and countries teach health and physical education as two separate subject areas respectively. In the Australian state of Queensland the subject area is also called
HPE, and in a study of HPE teachers in that context, Sirna, Tinning, and Rossi (2008, p. 298) claimed that much of the literature on physical education teachers also pertains to HPE teachers. Although I recognize that much of what has been written and researched previously has focused primarily on teachers of physical education rather than HPE, in a similar manner to Sirna et al. (2008), when referring to the literature on teachers of physical education or HPE I use the terms interchangeably. However, when referring to the student teachers studied in this dissertation, I refer to the subject area specifically as HPE.

**Physical Activity:** It is important to distinguish between the terms physical education and physical activity, as there are distinct differences between conceptions of the two terms. The physical education component of a school-based HPE program utilizes physical activities as a vehicle to achieve an academic outcome (Lu & Di Lisio, 2010). In contrast, physical activity refers to any movement of the body produced by the skeletal muscles that results in energy expenditure (Pangrazi & Gibbons, 2008).

**Elementary Classroom Teachers:** For the purposes of this dissertation, elementary classroom teachers are defined as practicing teachers (that is, they are qualified teachers who are teaching in elementary schools) who teach the same students multiple subjects, such as language arts, mathematics, social studies, science, and so on. Elementary classroom teachers stand in contrast to elementary specialist teachers, who may have a subject specialization in, for example, HPE, music, or visual art. Further, specialist teachers teach their specialty subject for the bulk of the school day.

**Elementary student teachers:** Elementary student teachers are enrolled in a pre-service, university-based teacher education program and are learning to become elementary classroom teachers. By completing this program, elementary student teachers gain certification to teach in provincial public and private schools in either the Primary/Junior (P/J) grades (K-6) or the Junior/Intermediate (J/I) grades (4-10). Unless stated otherwise, the elementary student teachers in this study are not learning to become specialist HPE teachers.

**Teacher Education Program:** The teacher education program being studied is a university-based program where individuals learn to become teachers, and upon completion of the course, gain the qualifications necessary to become certified to teach in the province. In the context in which this study takes place, the teacher education program includes a one-year, post-baccalaureate Bachelor of Education program involving coursework, two four-week practice teaching placements, and one six-week internship placement.
1.6 Organization of the dissertation

The dissertation is organized in eight chapters. In this introductory first chapter, the background to the research, purpose of the study, research questions, and definitions of terms were provided. I also justified studying the HPE experiences of elementary student teachers by identifying gaps in the literature and situating the study in the current educational climate in Ontario. In Chapter Two the relevant literature pertaining to teacher education and HPE is reviewed and theories of experience that underpin the dissertation are discussed. In Chapter Three the methods of the study are outlined and pragmatist epistemologies and methodologies are justified as suitable groundings from which to gather and analyze mixed modes of data. In Chapters Four, Five, Six, and Seven I present the quantitative and qualitative findings. Specifically, in Chapter Four I analyze student teachers’ prior experiences of HPE and physical activity. In Chapter Five, student teachers’ experiences of the HPE course at Windermere University are analyzed. Chapter Six presents analysis of student teachers’ practice teaching experiences. In Chapter Seven I analyze the extent of change in student teachers’ experiences throughout the pre-service teacher education program. In Chapter Eight, I draw conclusions based on the findings, discuss implications for school HPE and HPE teacher education, and offer suggestions for future research.

1.7 Chapter summary

Given that the majority of elementary HPE classes in Ontario are taught by classroom teachers (Cameron et al., 2007; Dwyer et al., 2008; Faulkner et al., 2008), I am interested in the teacher-related factors that have been identified as barriers for elementary classroom teachers to establish a quality HPE program. In particular I focus on barriers concerning the nature of elementary student teachers’ experiences of HPE prior to and during a teacher education program and explore how these experiences shape student teachers’ understanding, knowledge, confidence, perceptions, and identities for teaching HPE. In this chapter, the purpose of the study was introduced, and the research questions that guide the study were provided. Furthermore, several terms that are used throughout the dissertation were defined. In the next chapter, a review of theories and research that have informed the study is presented.
Chapter 2
Review of Literature: Theory and Research

Introduction
As described in Chapter One, this dissertation is a study of elementary student teachers’ learning about health and physical education (HPE) in the context of a pre-service teacher education program. The purpose of this chapter is to review the scholarly literature that relates to the research questions and to discuss the theoretical underpinnings of the dissertation. In Chapter One I briefly introduced research on elementary classroom teachers in HPE and identified gaps that existed in what is understood about their experiences of pre-service teacher education. In this chapter I situate the topic and research questions in the broader field of teacher education. The chapter is organized into three main sections. First, because the dissertation explores teacher learning in the context of pre-service teacher education programs, I discuss current issues regarding teacher education policy, research, and practice, both in a broad sense and with a focus on HPE. Second, I review what is known about teacher learning in pre-service teacher education. I address theoretical constructs such as Lortie’s (1975) notion of the apprenticeship of observation, teacher biography, and the development of professional identity. In the third section I outline how theories of experience provide a suitable framework for this research on teacher learning, in particular, Dewey’s (1938) theory of experience and education.

2.1 Current issues in teacher education and in HPE

Teacher education today is far different than it was 50 or 100 years ago. Teacher preparation and professional development are provided by a wider range of institutions, their programs are more complex, and their quality more divergent. Prospective teachers have a broader array of potential professions from which to choose and researchers are exploring more varied problems. Yet, despite all the changes in teacher education, the major issues undergirding the profession are as paramount as ever. Understanding these changes and their effects on educational
practice, and considering them in light of several enduring issues, requires careful and continual examination. (Houston, 2008, p. xxx)

In the Foreword to the third edition of the *Handbook of Research on Teacher Education* (Cochran-Smith, Feiman-Nemser, McIntyre & Demers, 2008), Houston acknowledges that although many aspects of teacher education have changed and improved over time, many of the major challenges are yet to be overcome. The subject area of HPE faces a similar predicament. While research and practice has improved how HPE has been thought about, researched, and taught, there remain many barriers that have existed for generations that inhibit it being taught well in all schools (Kirk, 2010; Mandigo, 2010; McKenzie & Lounsbery, 2009).

It may therefore be apt to claim that the situation for teacher education and HPE traces a parallel trajectory in that both have been overwhelmingly recognized as beneficial for the populations they serve (beginning teachers and school-aged children, respectively) and go a long way toward meeting their respective purposes\(^2\). However, for more than a century they have faced continual criticism and have had to argue for their place in the institutions in which they are located. Both have been recognized as part of the problem and a potential solution to improving aspects of education but that tension continues to exist today (O’Sullivan, 2006; Siedentop & Locke, 1997). In this section I discuss several of what I consider to be the main challenges faced by both teacher education and HPE, and the promising practices that are emerging to address these challenges.

### 2.1.1 The challenges to teacher education and to HPE

After more than a century of criticism, many policy-makers still question whether, and to what extent, teacher education makes a difference (Cochran-Smith, 2004; Darling-Hammond, Wei & Johnson, 2009). As Fullan, Galluzzo, Morris, and Watson (1998) state:

> Despite the rhetoric about teacher education in today’s society, there does not seem to be a real belief or confidence that investing in teacher education will yield results. Perhaps deep down many leaders believe that teaching is not all that

\(^{2}\) For a review of research that supports claims that teacher education achieves its purposes, see Wilson, Floden, and Ferrini-Mundy (2002). For a review of research that supports claims that HPE in schools achieves its purposes, see Bailey, Armour, Kirk, Jess, Pickup, and Sandford (2009).
difficult. After all, most leaders have spent thousands of hours in the classroom and are at least armchair experts. (p. 2)

Similar claims to those directed toward teaching have also been made regarding elementary HPE in schools. For instance, according to DeCorby et al. (2005), HPE is generally believed to be of value in the elementary curriculum; however, while it receives fairly positive reviews from its “small clients” (Graber et al., 2008, p. 154), adults’ perceptions of HPE are complex and often contradictory (Graham, 2008). While parents mostly think favourably about their child’s HPE programs, Sheehy (2006) revealed that when asked about the nature of those programs, parents knew very little about what actually went on in the classes. Meanwhile, the elementary classroom teachers who are mostly responsible for teaching HPE (Hardman & Marshall, 2000) and school administrators tend to value HPE but for reasons that many physical educators would claim are misguided. For example, rather than being an opportunity for pupils to learn about or through “the physical”, HPE is often seen as chance for pupils to “blow off steam” (Morgan & Bourke, 2008). Furthermore, elementary classroom teachers sometimes feel that the time spent on HPE could be better spent on instruction in other areas of the curriculum (Morgan & Hansen, 2008a).

Because many of the issues written about teacher education and HPE persist in today’s educational contexts, it is not uncommon to hear or read about teacher educators’ frustrations with the constant challenges and barriers that are present in teaching and in preparing teachers, both in a general sense and with specific reference to HPE. For example, formal teacher education programs can be seen as lacking direction (Kosnik & Beck, 2009a), a waste of time, or programs that prepare teachers for socialization rather than what many consider to be the day-to-day necessities of teaching (Hansen, 2008). What student teachers learn in their programs has been cited as being remote from practice, demonstrated by a tension between university-based teacher education coursework and field-based practice teaching experiences (Labaree, 2004; Levine, 2006; Zeichner & Tabachnick, 1981).

These criticisms are compounded in HPE teacher education (HPETE) due to the limited amount of time student teachers spend learning to teach HPE. Consequently, elementary classroom teachers consistently cite inadequate teacher education as one of the major barriers that inhibits their teaching a quality HPE program (Allison et al., 1990; Carney & Chedzoy, 1998; DeCorby et al., 2005; Dwyer et al., 2008; Faulkner et al., 2008; Morgan & Bourke, 2008;
The challenges to teacher education and HPE mean that both are continually asked to justify their status and as such, might be considered marginalized within their spheres. Teacher education is marginalized within the university but for HPE the marginalization is two-fold; it is marginalized within schools and within teacher education (Collier, 2006). In response, the challenges listed and critiques aimed at both fields continue to be researched and debated and it appears that only recently have feasible and practical solutions to several problems emerged.

2.1.2 The effectiveness of teacher education

To inform the debate on teacher education, researchers have begun to establish how and why teacher education makes a difference to how teachers go about their work and impact the pupils they teach. While much of the research in this area has been conducted in the United States where alternative certification presents a somewhat unique dilemma, many of the critiques of teacher education are applicable to the Canadian context (Crocker & Dibbon, 2008; Levin, 2008; Russell, McPherson & Martin, 2001; Sheehan & Fullan, 1995).

In considering the research that has attempted to address the value and effectiveness of teacher education, Wilson and Tamir (2008) concluded that evidence about teacher education was unconvincing, stating: “in general, research offers few definitive conclusions about the effects of teacher preparation or certification, field experience, subject matter and pedagogy classes, program accreditation, and the like” (p. 920). However, some pieces of evidence have been compiled that lend support to the value and effectiveness of teacher education programs. For example, in a review of 57 research studies on pre-service teacher education, Wilson et al. (2002) addressed five questions concerning program effectiveness. These questions related to how, and to what extent, the following factors improve and sustain pre-service teacher education: (a) subject matter preparation, (b) pedagogical preparation, (c) practice teaching, (d) policies, and (e) alternative certification. Wilson et al. (2002) expressed a concern about a general lack of what they deemed to be rigorous research on teacher education upon which to base their claims; however, they were able to make several conclusions regarding teacher education that dealt specifically with the first three of their five questions.

First, a positive relationship existed between teachers’ subject matter preparation and their performance and impact in the classroom. In general, an individual’s subject matter preparation was improved if that person had taken an undergraduate major in the subject area as
well as subject matter coursework in the context of teacher education. Second, a positive relationship also existed between a teachers’ pedagogical preparation (that is, in general teaching methods, learning theories, educational psychology, educational sociology, and so on) and their performance and impact upon pupils. Third, practice teaching was recognized as a powerful component of teacher education; however, due to a high degree of variance existing in the quality of practice teaching experiences, not all student teachers gain the same benefits from practice teaching.

Each of the three conclusions made by Wilson et al. (2002) regarding the importance of what goes on in teacher education are important; however, focusing attention on one point alone is too simplistic. That is, for teacher education programs to be effective there needs to be a substantial degree of overlap in subject matter preparation, pedagogical preparation, and practice teaching experience (Zeichner, 2003). In the following sub-sections I review research that explores the claims made by Wilson et al. (2002) regarding subject matter preparation, pedagogical preparation, and practice teaching experiences.

2.1.2.1 Subject matter and pedagogical preparation

Rather than dealing with subject matter preparation and pedagogical preparation separately, I have chosen to combine the two as both are constructs of, and partially represent, teachers’ knowledge (Cochran-Smith & Lytle, 1999; Hiebert, Gallimore & Stigler, 2002; Munby, Russell & Martin, 2001). These representations of teachers’ knowledge include knowledge for teaching (which can be learned inside and outside of coursework) and knowledge of teaching (which can only be learned in the context of teaching situations) (Feiman-Nemser, 2008). Knowledge in this sense can be viewed and constructed from formal/disciplinary (Shulman, 1987), practical (Clandinin & Connelly, 1995), and craft (Grimmett & MacKinnon, 1992) perspectives.

According to Kosnik and Beck (2009a), teachers require subject knowledge (content and pedagogy) in order to teach well. The combination of both content and pedagogy has important consequences for several reasons. Grossman and Schoenfeld (2005) suggest that for teachers to become diagnosticians of children’s interests and ideas and to engage pupils in explorations of subject matter that extend the reach of their understanding, “teachers need to understand deeply not only the content they are responsible for teaching but how to represent the content for learners of all kinds” (p. 202). As highlighted in the previous section, Wilson et al. (2002)
concluded that preparation in subject matter and pedagogy was related to teachers’ performance and impact in the classroom. However, Kosnik and Beck (2009a) contend that preparation to teach subject matter has been an issue neglected by elementary teacher education researchers and practitioners:

In recent decades, teacher education has tended to focus on theory and “general method”, to the relative neglect of content and pedagogy specific to subjects such as literacy, math, and science. For example, it is not uncommon to find elementary pre-service programs with just one 40-hour course on literacy teaching and even less on math and science. In our view, it is time to return to giving higher priority to subject specific knowledge in pre-service preparation. Although teacher educators were right to reject the earlier assumption (still widespread in the public at large) that subject knowledge is all one needs in order to teach well, we have often gone too far to the other extreme. Much of the school day is spent teaching specific subjects and accordingly teachers must be prepared for this work. (p. 105. Italics in original)

When one form of knowledge (that is content or pedagogical) is developed in absence of the other, there can be limiting effects for teachers. For example, Petrie (2010) found that the effectiveness of an HPE professional development program for elementary classroom teachers in New Zealand was hindered because it focused on developing pedagogical knowledge without developing content knowledge at the same time. Alternatively, a similar program in the United Kingdom was found to be limited due to an inattention to pedagogical issues such as planning and assessment (Harris, Cale & Musson, in press). In taking a point of view that acknowledges both content and pedagogy as essential in subject matter preparation, Grossman and Schoenfeld (2005) argue for the centrality of pedagogical content knowledge (PCK) in any context of learning to teach. PCK is described as:

The most regularly taught topics in one’s subject area, the most useful forms of representation of those ideas, the most powerful analogies, illustrations, examples, explanations, and demonstrations—in a word, the ways of representing and formulating the subject that make it comprehensible to others…Pedagogical
content knowledge also includes an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons. (Shulman, 1986, p. 9)

Some authors remain unconvinced that an integrated view of subject matter knowledge is necessary. For example, in the field of HPE, Siedentop (2002) criticized the shift away from content knowledge in teacher education, suggesting that teachers are now “pedagogically more skillful than ever, but who, in many cases, are so unprepared in the content area that they would be described as ‘ignorant’ if the content area were a purely cognitive knowledge field” (p. 369). While I agree with Siedentop’s (2002) opinion that teachers need adequate knowledge of the content they will be teaching, I do not believe he was arguing that pursuit of content knowledge should come at the expense of pedagogical knowledge. This is because conceptualizations of PCK include a deep knowledge of pupils and their backgrounds, as well as the content and pedagogy of a subject area (Grossman, McDonald, Hammerness & Ronfeldt, 2008). Similarly, Ball (2000) suggests that it is not enough to ask teachers to have high levels of subject matter knowledge; they must possess PCK as a means of teaching equitably. She stated:

Although some teachers have important understandings of the content, they often do not know it in ways that help them hear students, select good tasks, or help all their students learn. Not being able to do this undermines and makes hollow the efforts to prepare high quality teachers who can reach all students, teach in multicultural settings, and work in environments that make teaching and learning difficult. Despite frequently heard exhortations to teach all students, many teachers are unable to hear students flexibly, represent ideas in multiple ways, connect content to contexts effectively, and think about things in ways other than their own. (p. 243)

In expanding traditional definitions of PCK, McCaughtry (2004) used similar ideas to those presented by Ball (2000) to explore HPE teachers’ knowledge of pupils’ social and emotional experiences. By conducting an in-depth case study, he found that understanding pupils’ emotions was crucial to how teachers understand and navigate: (i) curricular decisions; (ii) instructional
decisions, and; (iii) pupil learning.

In the literature on elementary classroom teachers, few studies have specifically addressed PCK in HPE. Tsangaridou (2002) conducted a case study of one student teacher, Anna, and found that she enacted PCK in the following ways: by selecting and delivering content that she felt comfortable with; by providing examples and demonstrations of tasks; by using open-ended questioning techniques; by building on and making connections to pupils’ prior knowledge, and; by developing cooperation. Tsangaridou’s (2002) findings suggest that elementary classroom teachers can develop PCK during teacher education; however, her research is limited due to the lack of information provided about Anna, the case study participant. For example, Anna’s prior experiences with physical activity would have a substantial impact on her subject matter knowledge prior to attending the pre-service teacher education program. The perspective that teachers’ prior experiences impact how they teach is widely supported in the literature (Dewey, 1938; Knowles & Holt-Reynolds, 1991; National Research Council, 2000; Richardson, 1997) and is discussed in detail later in this chapter. If Anna had extensive experiences with physical activity it may be that the teacher education program had little influence on the development of her PCK compared to if she came to the program with limited experiences. As Feiman-Nemser (2008) suggests, student teachers like Anna may have developed their knowledge for teaching outside of teacher education settings; for example, by participating in youth sports programs. This is not a criticism of the method or the number of participants that Tsangaridou (2002) chose to use, but of the information she provided about the participant. As recommended by the author, it is clear that more research is needed in this area if we are to understand how and to what extent teacher education programs can develop PCK for student teachers.

In-depth discussion of the merits and critiques of PCK is beyond the scope of this literature review and as such, I do not discuss how subject matter knowledge develops in student teachers or the epistemology of different forms of teachers’ knowledge (c.f. Bullock, 2011; Clandinin & Connelly, 1995; Cochran-Smith & Lytle, 1999; Fenstermacher, 1994; Munby et al., 2001). However, I acknowledge that teaching is extremely complex and share the opinions of Ball (2000), Grimmett and MacKinnon (1992), Grossman and Schoenfeld (2005), Hiebert et al.

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3 Of interest is that no studies of elementary classroom teachers and HPE were found that examined teachers’ knowledge from other than a formal perspective (Tsangaridou, 2002). That is, no studies have investigated classroom teachers’ practical or craft knowledge in HPE.
(2002); Kosnik and Beck (2009a), and McCaughtry (2004) that in order for teachers to effectively teach, they need deep understanding of the contexts in which they are teaching, who they are teaching, what it is they are teaching, and the ways in which material can best be presented to pupils from a wide variety of ages, abilities, and backgrounds.

2.1.2.1.1 Fostering subject matter and pedagogical preparation

How can teacher educators foster the development of subject matter and pedagogical knowledge during teacher education? By following 22 teacher education graduates during their first five years of teaching, Kosnik and Beck (2009a) recognized subject matter and pedagogical preparation as one of seven priorities for teacher education. Based on the data gathered and the research participants’ acknowledgement of the importance of subject matter preparation, Kosnik and Beck (2009a) suggested the following principles for teacher education:

- Use subject-specific knowledge as a basis for student teacher admission and faculty hiring;
- Emphasize subject content and pedagogy in the pre-service program in both foundational and subject-specific methods courses. An efficient and feasible way to achieve this may be to provide examples and approaches according to grade levels;
- Be selective in subject-specific instruction by prioritizing and teaching for depth;
- Provide practice teaching experiences that foster subject-specific knowledge;
- As faculty, continue to learn subject content and pedagogy;
- Initiate student teachers into ongoing growth in subject knowledge.

As well as providing some general guidelines on how subject matter and pedagogical preparation might be achieved in teacher education programs, Kosnik and Beck (2009a) recognize the importance of fostering subject-specific knowledge growth in the practice teaching experience, supporting Zeichner’s (2003) urging for a degree of overlap in subject matter preparation, pedagogical preparation, and practice teaching in order for teacher education to be considered effective. In the following sub-section I review research that examines practice teaching in teacher education.
2.1.2.2 Practice teaching

The practice teaching experience (also called the practicum, student teaching, clinical experience, or field experience), is widely considered to be one of, if not the, most important and powerful components of pre-service teacher education (Britzman, 2003; Darling-Hammond, 2006a; 2006b; Wilson et al., 2002; Zeichner, 1996). This view is held by teacher education researchers as well as by student teachers and experienced teachers (Beck & Kosnik, 2000; 2002a; 2002b). Hollins and Guzman (2005) summarize the important aims of practice teaching, stating:

It is broadly assumed that field experiences are the key component of preparation where prospective teachers learn to bridge theory and practice, work with colleagues and families, and develop pedagogical and curricular strategies for meeting the needs of a diverse learning population. (p. 493)

While practice teaching can provide meaningful learning experiences for student teachers, it does not mean that all placements carry the same learning opportunities. Darling-Hammond and Hammerness (2005) highlight that even within the same teacher education program there can be tremendous variability in the practice teaching experience from student teacher to student teacher:

The actual experience of student teaching is highly variable both within and across programs, depending on how cooperating teachers are recruited, whether and how the process is guided, and what the expectations are for performance by both the novice and cooperating teacher. The experience can range from the most passive version of student teaching in which the prospective teacher sits in the back of a classroom and simply observes and, perhaps, grades papers, to a kind of “trial by fire” in which the student teacher takes over a more experienced teacher’s classroom immediately and teaches alone, sometimes with little coaching, co-planning, or conceptual framework to guide what he or she does in the classroom. The practices of cooperating teachers may reflect the program’s goals and contemporary research on learning and teaching to widely varying degrees. (p. 409)
Even when student teachers understand that their practice teaching placement may not be an exemplar of teaching practice, the practice teaching context places student teachers in a tense relationship with the university-based teacher education program and its values and ideals, and those that are espoused in their placement school or classroom. One result of this is that there is often a stark discrepancy between student teachers’ expectations and their experiences in practice teaching (Cole & Knowles, 1993). For example, although student teachers may disagree with their associate teacher’s practices, they realize that an important evaluation of their teaching lies at the end of the experience that can have a profound effect upon their chances for gaining employment upon graduation. Thus, it is common for student teachers to want to avoid disagreement or conflict and “thus do not always engage in critical conversations about their own teaching or their collaborating teachers’ practice” (Wilson et al., 2002, p. 195). From issues such as these, Bullock and Russell (2010) argue that practice teaching is inherently problematic and the experience is unlikely to encourage student teachers to develop pedagogies that promote more productive learning for pupils.

Few studies have been conducted that examine the practice teaching experience for elementary classroom teachers in HPE. One of the reasons for this may be that few teacher education institutions require a practice teaching component in the HPE program (Graber et al., 2008). Humphries and Ashy (2006) conducted a mixed-method investigation of the practice teaching experiences of 183 elementary student teachers over a period of three years. They found that student teachers’ confidence increased following the practice teaching placement, primarily in the areas of attitude (for example, towards teaching skills, subject matter, or pupils) and classroom management. The authors expressed concern and caution that changes did not emerge in confidence related to instructional skills and content knowledge. Therefore, while Humphries and Ashy (2006) found that a field experience can lead to a positive attitude toward HPE, their findings “do not suggest that candidates complete such an experience prepared to go forth and become physical educators” (p. 193). Consequently, Humphries and Ashy (2006) call for quality practice teaching experiences in HPE. But what are the components of a quality practice teaching experience?

2.1.2.2.1 Components of a strong practice teaching placement

Several recent studies have provided indicators of the components of a strong practice teaching placement. The practice teaching experience can take on a variety of formats. For
example, some teacher education institutions are providing field experiences that are linked directly to university-based methods courses. In their review of such experiences, Clift and Brady (2005) concluded that these types of arrangements were strong because they provided student teachers with opportunities to practice ideas or gain experience with concepts learned in the methods course through small-group observations, tutoring, and community experiences in addition to observations and more traditional student teaching. Xiang et al. (2002) examined a field-based HPE methods course for elementary classroom teachers and found that the opportunities to observe and practice teaching HPE in an elementary school setting had a positive impact on student teachers’ beliefs about teaching HPE. However, of concern was an increase in the extent to which student teachers felt that they possessed inadequate knowledge and skills to conduct a quality HPE program. In turn, they felt less confident about teaching HPE after they had completed the field-based course.

Darling-Hammond and Hammerness (2005) suggested that an ideal practice teaching placement is one that allows student teachers to be supported by an expert teacher who can model exemplary practice, co-plan lessons, provide frequent and critical (but supportive) feedback, provide repeated opportunities to practice teaching, and who can guide student teachers through reflection upon their practice. These recommendations closely mirror what Beck and Kosnik (2002b) found when they examined student teachers’ perspectives of the components of a good practice teaching placement, which included:

- Emotional support from the associate teacher;
- Being seen and respected as a peer by the associate teacher, rather than being seen as a student;
- Collaboration with the associate teacher;
- Flexibility in teaching content and method;
- Feedback from the associate teacher;
- A sound approach to teaching and learning on the part of the associate teacher, and;
- A heavy but not excessive workload during the practice teaching experience.

Similarly, Darling-Hammond’s (2006a) studies of exemplary teacher education programs in the United States provide key indicators and guidelines about how these programs structured the practice teaching placements for student teachers:
Although student teaching is often a haphazard experience, it is carefully constructed in the programs we studied. Because it occurs concurrently with coursework, candidates are guided in their clinical work through assignments that shape what they notice and do in the classroom, as well as through specific tasks they are expected to undertake. Cooperating teachers are guided as well by the expectations outlined in the programs and by the kinds of evaluations or assessments they are asked to complete on candidates. The design of school-based experiences actually creates a clinical curriculum, providing an opportunity for graduated responsibility that is carefully scaffolded for prospective teachers. Finally, clinical experiences are shaped by the work the programs do with the cooperating teachers directly, through orientation, training, and ongoing interaction among university- and school-based faculties. (p. 156)

These reviews provide some concrete guidelines for teacher education institutions about how they can foster exemplary practice teaching experiences for student teachers, thus impacting upon the effectiveness of the teacher education program. Practice teaching experiences may be prevalent in the general scheme of elementary teacher education, however, it is of primary concern that those who are preparing to become elementary classroom teachers rarely get to experience the components of a strong practice teaching placement that includes observations of and collaboration with an exemplary HPE teacher, or opportunities to practice teaching HPE themselves.

2.1.3 Summary of current issues in teacher education and in HPE

In the preceding sections I have reviewed literature on current issues in teacher education with a focus on aspects that have been found to “make a difference” to teachers’ performance and impact in the classroom. While the categories of subject matter preparation, pedagogical preparation, and practice teaching identified by Wilson et al. (2002) are extremely broad, if teacher education is to improve the quality of teaching in schools it is imperative that those who are charged with its undertaking do so according to principles informed by research. A review by Graber et al. (2008) acknowledged the lack of subject matter preparation, pedagogical preparation, and practice teaching opportunities in HPETE for classroom teachers. These authors suggest that much more needs to be done in order for HPE teacher education to be effective and
Unlike specialist physical education teachers, most classroom teachers are exposed to no more than one required undergraduate course that addresses both the process of teaching and the content matter of elementary physical education. Although some programs provide an accompanying laboratory or field experience, one, three-credit course is hardly sufficient for preparing a classroom teacher to instruct a complex subject matter in a dynamic open environment such as a gymnasium or playground. (p. 153)

The guidelines provided by Wilson et al. (2002) and case studies conducted by Darling-Hammond (2006a) are particularly informative in terms of the structure of teacher education programs and provide insights into how student teachers (regardless of their area of specialization) might best be provided with learning opportunities in the areas of subject matter preparation, pedagogical preparation, and practice teaching.

In the early part of the 21st century, a renewed focus on teacher learning in the context of pre-service teacher education has taken place. In looking at two areas of research on teacher learning, Russell et al. (2001) summarized the criticisms of teacher education programs and claimed that these criticisms have been directed toward both an ineffective process (how learning occurs) and an ineffective product (what is learned). The focus on the processes and products of learning in the context of pre-service teacher education has been recognized as a shift in the way teacher education is thought about, researched, and practiced. Feiman-Nemser (2008) claimed that a focus on learning and the contexts in which learning occurs signaled a fundamental change in teacher education research. She stated:

[R]esearchers have come to appreciate that learning to teach extends beyond the boundaries of formal teacher education. Moreover, questions about the content of teacher learning are not the same as questions about how teachers acquire, generate, and learn to use knowledge in teaching. Influenced by developments in learning theory and new understandings of teaching, scholars are shaping a new era of research on teacher learning with important implications for teacher education policy and practice. (p. 697)
In the following section, I review research on teacher learning in the context of pre-service teacher education. I draw attention to several theories of teacher learning that point to a suitable theoretical framework for this study.

2.2 Teacher learning in pre-service teacher education

As mentioned in Chapter One, teachers have been identified as the most significant factor in a child’s learning (Cochran-Smith & Zeichner, 2005; Darling-Hammond, 2006a; Darling-Hammond & Bransford, 2005). Therefore, the study of how teachers learn to teach is of utmost importance (Feiman-Nemser, 2001). Teachers cannot expect, nor be expected, to learn all there is to know about teaching during a brief pre-service teacher education program (Korthagen, Loughran & Russell, 2006), so learning to teach needs to be seen as an ongoing and if not life-long, then definitely career-long process. However, this point should not undermine pre-service teacher education, nor does it suggest that pre-service teacher education is not important. As outlined in the preceding section, pre-service teacher education can and does make a difference to teachers’ ongoing development (Hammerness, Darling-Hammond & Bransford, 2005). This claim is supported by Boyd, Grossman, Lankford, Loeb, and Wyckoff (2009) who found that teachers who were consistently more effective (in terms related to pupil outcomes) in the early stages of their career attended teacher education programs that focused specifically on what they will be doing in their first year.

Hammerness et al. (2005) cited three major principles of learning to teach:

1. Prospective teachers come to the classroom with preconceptions about how the world, and teaching, works. These preconceptions, developed in their “apprenticeship of observation,” condition what they learn. If their initial understanding is not engaged, they may fail to grasp new concepts and information, or they may learn them for purposes of a test but revert to their preconceptions outside the classroom.

2. To develop competence in an area of inquiry that allows them to “enact” what they know, teachers must (i) have a deep foundation of factual and theoretical knowledge, (ii) understand facts and ideas in the context of a conceptual
framework, and (iii) organize knowledge in ways that facilitate retrieval and action.

3. A “metacognitive” approach to instruction can help teachers learn to take control of their own learning by providing tools for analysis of events and situations that enable them to understand and handle the complexities of life in classrooms. (p. 366)

While I recognize the importance of the second and third principles outlined by Hammerness et al. (2005), the first principle highlighted has important bearing on how this dissertation has been conceptualized and the research conducted. According to Cochran-Smith and Demers (2008) the acknowledgement that teachers have a vast store of prior experiences represents a new model of thinking about how teachers learn, evident in the ways that research on teacher education was conceptualized, conducted, analyzed, and how the implications for teacher education were taken forward from there:

The general orientation of the “new” approach to teacher learning and professional education was more constructivist than transmission-oriented – the recognition that both prospective and experienced teachers (like all learners) brought prior knowledge and experience to all new learning situations, which are social and contextually specific. In addition, it came to be generally understood that teacher learning took place over time rather than in isolated moments in time, and that active learning required opportunities to link previous knowledge with new understandings. (Cochran-Smith & Demers, 2008, p. 1011)

The understanding that teachers come to their classrooms (both in the pre-service and practicing contexts) with preconceived notions of teaching has been cited as one of the major challenges to address in the process of learning to teach. Current literature on learning to teach reflects the importance of having student teachers examine their prior beliefs, images, and experiences of teaching and learning in order to grow as professionals (Cochran-Smith et al., 2008). However, this was not always the case. Prior to and during the 1990s, Carter (1990), Feiman-Nemser and Remillard (1996), Kagan (1992), and Wideen et al. (1998) proposed that teacher educators and programs of teacher education tended to view learning to teach simply as a
process of acquiring knowledge about the “nuts and bolts” of teaching, largely informed by propositional knowledge (Munby et al., 2001). In traditional programs the process of how knowledge about teaching is acquired tended to be through a transmission approach, with the teacher educator transmitting to student teachers (through a variety of methods) the knowledge they believed to be important for teaching. Yet the effectiveness of the traditional, transmission model has been called into question. From their review of 97 peer-reviewed studies of learning to teach, Wideen et al. (1998) observed that a more productive approach in learning how to teach was through designing programs based upon the beliefs and prior experiences of the student teachers.

At the core of this approach lies the epistemological stance that learning how to teach is a deeply personal activity in which the individual concerned has to deal with his or her prior beliefs in the light of expectations from a university, a school, and society, and in the context of teaching. Underlying this view of learning to teach is the assumption that a change in beliefs will result in a change in teaching practice. (p. 161)

Researchers have demonstrated that the beliefs and images that student teachers bring with them are fairly stable constructs and it is difficult to change beliefs during pre-service teacher education (Calderhead & Robson, 1991), with student teachers often transforming the messages given in teacher education programs to fit their preconceptions (Zeichner, 1999). The beliefs that prospective teachers bring with them to teacher education are derived from experiences and serve as filters for how they interpret and make sense of learning experiences in teacher education (Feiman-Nemser, 2001; Richardson, 1996). An approach that views experiences as embedded within beliefs is therefore appropriate and it is this understanding that frames this dissertation.

2.2.1 Research on Teachers’ Experiences

Teachers bring with them a wide array of experiences in schools and in life, including their own experiences as elementary, secondary, and university pupils; their experiences in pre-service teacher education; their experiences as practicing teachers, and; their experiences as global citizens. Richardson (1996) identifies three categories of experience in the literature that
influence teachers’ beliefs and knowledge: personal experience, experience with schooling, and experience with formal knowledge. She further points out that these categories are not mutually exclusive and have been studied together in the form of teacher biography research. Teachers’ experiences make up their biographies and teacher biography research plays a salient role in studying how beginning teachers learn to teach and come to think about their professional identity. Knowles (1992) also asserts that teacher biography impacts upon the classroom behaviours and practices of teachers, particularly those who are in the early stages of their career. Britzman (1986) has highlighted how exploring beginning teachers’ biographies can inform the processes of learning to teach:

Exploring the internal world of prospective teachers requires a journey into biography and an understanding of the contexts through which the future teacher progresses. One such context is the historical experience of lives lived in compulsory education, since it is there that prospective teachers first experience the classroom life to which they return as student teachers. (p. 452)

Lortie (1975) described what Britzman (1986, p. 452) called the “experience of lives lived in compulsory education” as the apprenticeship of observation. In the following sub-sections I discuss research on teachers’ biographies that has considered teachers’ experiences including those gained during the apprenticeship of observation. In doing so I roughly follow the categorization of experiences set out by Richardson (1996). The first sub-section considers personal experiences; however, I have chosen to combine Richardson’s (1996) categories of “experiences with schooling and instruction” and “experience with formal knowledge” under the single heading of school experiences, which is discussed in the second sub-section.

2.2.1.1 Personal experiences

The personal histories of teachers that examine their experiences from inside and outside of schools can have tremendous impact upon what and how teachers teach (Knowles & Holt-Reynolds, 1991). Therefore, the personal experiences of teachers are considered integral to understanding the teaching process (Clandinin & Connelly, 1996; Connelly & Clandinin, 1988; Munby et al., 2001; Richardson, 1996; Rosaen & Florio-Ruane, 2008). Yet, Korthagen et al. (2006) make an important point that it is perhaps inaccurate to assume that learning occurs
simply through experience; they contend that learning occurs “through reflection on experience and through interaction with others” (p. 1025). Thus, an important process in teacher education involves having student teachers revisit and analyze past experiences to help them recognize how their knowledge has been constructed and how their beliefs about teaching and learning have been shaped. Two examples of how this kind of reflection has enabled student teachers’ learning are found in the work of Beattie (2006) and Skerrett (2008). Beattie (2006) studied teachers’ personal histories to help them make connections between aspects of, for example, their cultural heritage or passion for creativity, and their approaches to teaching, and Skerrett (2008) described the influence of her family and of living internationally on her teaching practice.

Early learning experiences in physical activity, sport, and HPE are said to be among the most reliable predictors for lifelong physical activity (Ennis, 2010; Kirk, 2005; Shephard & Trudeau, 2008). Furthermore, these early learning experiences shape choices to, or not to, continue with HPE programs in schools, either as pupils or as teachers of HPE. In studies of specialist HPE teachers, Armour and Jones (1998) and Curtner-Smith (2001) have explored HPE teachers’ experiences with sport and physical activity, examining how these experiences led them to choose to become HPE teachers and have shaped their knowledge construction, curriculum priorities, and teaching practice. Several studies exist of elementary classroom teachers’ personal experiences outside of school and how these have influenced, or relate to, their HPE teaching experiences and practices; these are reviewed in detail.

2.2.1.1.1 Classroom teachers’ personal experiences of HPE

Carney and Chedzoy (1998) investigated the relationship between elementary student teachers’ perceived competence to teach HPE and prior physical activity experiences in the United Kingdom. The authors surveyed student teachers throughout a one-year teacher education program to explore the areas in which the HPE program influenced their estimated teaching competence. The authors found that student teachers rated prior experience gained outside of school HPE as contributing strongly to their estimated competence to teach swimming and outdoor/adventure activities, while experiences gained inside and outside of school HPE influenced estimated competence in track and field and games. The university-based teacher education program had strong impacts only on student teachers’ perceived competence to teach dance and gymnastics. The strength of prior physical activity experiences gained outside of school was also emphasized by Faulkner and Reeves (2000), Faulkner et al. (2004), and Webster,
Monsma, and Erwin (2010), all of whom found that elementary student teachers who were regular participants in physical activity had stronger attitudes and intentions of teaching HPE than those student teachers who were not regular participants.

Similar studies have been conducted with practicing classroom teachers. Parks, Solmon, and Lee (2007) found that a history of participating in physical activities did not significantly influence willingness to take on a physical activity curriculum integration project; however, physical activity teaching experiences did. Parks et al. (2007) suggested that institutional factors, such as instructional time and physical activity facilities, were also strong influences on teachers’ integration of physical activity in the curriculum. Yet, a recent study contrasted these findings, demonstrating that practicing classroom teachers’ personal wellness history impacted upon their willingness to engage with a project that integrated physical activity into the elementary curriculum (Cothran, Kulinna & Garn, 2010). In particular, teachers who regularly participated in physical activities or who self-identified as “athletic” individuals were more likely to take on the project initiative.

The study of teachers’ identities offers a useful line of inquiry in research on elementary classroom teachers’ HPE experiences. Garrett and Wrench (2007) used a post-structural theoretical framework to explore elementary student teachers’ biographies and examine the ways in which student teachers positioned themselves around the discourses of physical activity and HPE. The findings indicated that while some student teachers enjoyed sport, physical activity, and HPE, for others the underlying discourses within these fields served to alienate rather than encourage active participation. For example, abilities in physical activity and HPE were defined in terms of a dichotomous identity: “sporty” or “non-sporty”. Student teachers felt that those individuals who participated in physical activities outside of school and held identities closely linked to the image of a “sporty” person reaped the most benefits in school HPE. Although using a different theoretical lens (Bandura’s (1986) theory of social learning), similar findings were reported by Morgan and Bourke (2008) who revealed that teachers who were not regular participants in sports or recreational activities as children did not view themselves as “sporty”, and led them to believe that they lacked the abilities to adequately teach HPE.

Taken together the review of research that has explored classroom teachers’ personal experiences of physical activity suggest that their identities as, for example, sporty or athletic individuals, can impact upon their HPE teaching experience. This suggests that in the present study it is appropriate to consider elementary student teachers’ experiences of physical activity,
sports, and recreation gained outside of formal schooling as well as their HPE experiences. These studies showed that teachers’ experiences gained both in and out of school contexts shape the images and beliefs they had about teaching, learning, and schooling, and offer strategies teacher educators can use to overcome negative images of HPE and teaching HPE.

2.2.1.2 School experiences

Lortie’s (1975) notion of the apprenticeship of observation has gained significant traction in the way that pre-service teacher education is thought about and conducted around the world. In completing the twelve or more years of compulsory schooling required in many education contexts, it has been estimated that individuals experience approximately 13,000 hours in direct contact with classroom teachers by the time one finishes high school (Lortie, 1975). Based on this extensive time spent in schools and with teachers, Loughran (2006) made the following observation about student teachers and the experiences they bring to the process of learning to teach:

> From their student perspective, they have observed teaching for a considerable period of time and have formulated views about what teaching is like and how it is done. It is therefore not difficult to see how their understanding of teaching may well be caught up in a search for the familiar routines and strategies they experienced as students and how, at one level, their understanding of learning to teach involves simply learning those routines and strategies and applying them in practice. (p. 105)

These perspectives of the teacher’s world provide student teachers with much information that influences their experiences, attitudes, and beliefs about schooling, teaching, and learning. However, it should be noted that, while important and perhaps useful, the information they have been given about teaching leads to only partial understandings of what it takes to be a teacher. For as Darling-Hammond (2006a) and Labaree (2004) have cautioned, while prior experiences of teaching and learning gained in schools can be important sources of motivation for student teachers, such experiences have limitations because they are from the perspective of a pupil rather than a teacher. As Lortie (1975) phrased it, they are made from “the other side of the desk” (p. 61).
The experiences gained during the apprenticeship of observation shape beliefs about teaching that lead to what Holt-Reynolds (1992) and Sugrue (1996) described as “lay theories”; theories and beliefs that have been formed unintentionally and without professional instruction. Grounding assumptions about schooling on lay theories formed from a pupil’s view may mislead student teachers into thinking that they know more about more about teaching than they actually do. Furthermore, this may make it harder for student teachers to form new ideas and new habits of thought and action that lead to professional growth (Feiman-Nemser, 2001).

Because teachers are highly likely to teach in ways similar to the ways that they were taught when they were school pupils, the apprenticeship of observation remains one of the more difficult challenges to address, let alone overcome, in pre-service teacher education (Bullock, 2011; Darling-Hammond, 2006a; Kennedy, 1999; Korthagen et al., 2006; Lawson, 1983; Lortie, 1975; Loughran, 2006; Schempp, 1989; Sugrue, 1996; Templin & Schempp, 1989; Wideen et al., 1998; Zeichner & Gore, 1990). For instance, many aspects of teaching are largely not seen by pupils, such as what goes into planning lessons or units, managing a classroom, dealing with parents, or individualizing instruction. Thus, student teachers who cling to views of teaching based on what they experienced as school pupils ultimately lack deep understanding of the complexities of teaching and have superficial views of what it means to be a teacher (Darling-Hammond et al., 2005). If teacher education is to have a lasting impact on teachers, the knowledge of teaching that student teachers have gained from being school pupils must be examined, developed, and reconstructed in the context of becoming a teacher (Beattie, 2006; Feiman-Nemser, 2001; Korthagen et al., 2006).

Several examples of research exist that document the school HPE experiences of elementary classroom teachers. As previously mentioned, early learning experiences in HPE influence an individual’s future experiences in HPE and their lifelong physical activity patterns (Ennis, 2010; Kirk, 2005; Shephard & Trudeau, 2008). For example, pupils report positive experiences, including previous success with HPE courses and content and positive interactions with teachers and peers, among reasons for choosing to continue with HPE courses in secondary school once they become elective (Sulz, Humbert, Gyrscik, Chad & Gibbons, 2010). Alternatively, pupils have highlighted low perceived levels of skill and ability (Portman, 1995) and generally poor experiences – with subject matter, teachers, and interactions with peers – as among the primary reasons why they cease to take HPE classes (Carlson, 1995; Sulz et al., 2010). Taken together these experiences, both positive and negative, can impact upon one’s
physical activity patterns later in life (Beltrán-Carrillo, Devis-Devis, Peiró-Velert & Brown, in press; Shephard & Trudeau, 2008).

Negative experiences of HPE are exacerbated when gender is taken into consideration because females have been found to be particularly dissatisfied with their HPE experiences in elementary and secondary school. For example, Ennis (1999), Gibbons, Wharf Higgins, Gaul, and Van Gyn (1999) and Gibbons and Humbert (2008) found that an emphasis on competitive team sports was a salient factor in leading to negative experiences for females. Not only was it the nature of these activities but the way they were taught that made HPE experiences negative. These findings are made more alarming because most elementary classroom teachers in Canada are female, suggesting that negative experiences of HPE in the population of elementary classroom teachers is common. This is supported in several studies, not only in Canada, where many elementary classroom teachers reported negative experiences of HPE when they were school pupils (DeCorby et al. 2005; Dwyer et al. 2008; Faulkner et al., 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b; Xiang et al., 2002).

2.2.1.2.1 Classroom teachers’ school experiences of HPE

Several investigations have explored elementary classroom teachers’ experiences of HPE as school pupils as a specific line of inquiry. Data has been gathered from the perspectives of both student teachers and practicing teachers. In one of the first pieces of research in this area, Allison et al. (1990) referred to student teachers’ prior HPE experiences as their “institutional biographies”. The authors asked 120 elementary student teachers to recall their most memorable HPE experiences from the time when they were elementary school pupils. Six types of experience emerged from the data and were grouped according to the following themes: success, embarrassment, physical injury, gender equity, special events and equipment, and teachers. Memories of success (represented by, for example, accomplishing a task, being praised for participation and/or performance), special events (such as inter-class tournaments or gymnastics demonstrations for parents), and to a lesser extent, teachers, were identified as positive contributors to student teachers’ HPE biographies. Alternatively, memories of embarrassment (represented by, for example, humiliating comments made by peers, being selected last for a team, feeling self-conscious about body size and clothing), physical injury, gender equity (where gender stereotypes were reinforced), and teachers (who often did not provide helpful instruction, did little to encourage pupils, and showed a lack of respect for pupils) contributed to student
teachers’ recollections of negative experiences.

Allison et al. (1990) did not classify the six themes in any order; however, the data they presented more prominently represented memories that contributed to negative experiences. This is not to say that negative experiences occur more often but that they may be more salient in student teachers’ memories of HPE. In contrast to several studies that followed this piece of research (e.g., Garrett & Wrench, 2007; 2008; Morgan & Hansen, 2008a), Allison et al. (1990) did not cite memories regarding HPE curriculum as a prominent factor related to student teachers’ institutional biographies.

Several studies have been conducted in Australia that have explored student teachers’ and practicing teachers’ experiences of HPE from the time they were school pupils and the impact of biography on teaching practice (e.g., Garrett & Wrench, 2007; 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b). In particular, in what is one of the few examples of a sustained research program in this line of inquiry, the work of Morgan and colleagues has contributed much to our understanding of classroom teachers’ HPE biographies. Unlike the memories of HPE described by student teachers in the study by Allison et al. (1990), those who participated in a study by Morgan and Bourke (2008) recalled the HPE curriculum as being a major contributor to the nature of their experience. For example, participants claimed that their elementary and secondary school HPE programs often lacked variety and usually consisted of loosely organized competitive games and sports, with little emphasis on skill development or tactical thinking. These findings echoed those of Gibbons et al. (1999), Gibbons and Humbert (2008) and Sulz et al. (2010) as outlined earlier in this section. Of particular importance from this study was the finding that:

The quality of an individual’s school [H]PE experiences directly predicted his or her confidence to teach [H]PE (variance explained = 30%). It was apparent that many of the reasons provided for a lack of confidence were based on memories of poor quality school [H]PE. (Morgan & Bourke, 2008, p. 2)

Morgan and Bourke (2008) warned that at the pre-service level, elementary classroom teachers’ confidence to teach HPE based on negative school HPE experiences could perpetuate a lack of interest in learning how to teach a dynamic and engaging HPE program. That is, negative

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4 Aspects of Morgan and colleagues’ work were also reviewed in Chapter One.
or inappropriate experiences of school HPE programs may result in student teachers believing that they do not have the skills and knowledge to teach HPE, that teaching HPE is not important, or that teaching HPE involves little more than a supervisory teaching role. The latter two points have been recognized as contributing to a “non-teaching ideology” (Crum, 1993), which remains present in many schools today. This is evident in the way that some teachers and administrators view HPE as the time in the day that provides needed planning time or that allows children to “blow off steam” before returning to “real” classroom work (Graham, 2008). If student teachers are to view HPE as an important place for learning, Morgan and Bourke (2008) contend that it is essential that their previous HPE experiences are reflected upon, challenged, and reconstructed in teacher education programs, so that sustained change may be achieved.

Practicing classroom teachers’ HPE biographies have also been shown to have a statistically significant relationship with the quality of the HPE program they teach (Morgan & Hansen, 2008a). Using a hierarchical regression model, Morgan and Hansen (2008a) found that HPE experiences as school pupils, the quality of pre-service teacher education, and attitudes toward teaching HPE were statistically significant predictors of the quality of practicing classroom teachers’ HPE programs, explaining 32% of the variance. This finding established a relationship between personal school experiences and current HPE teaching practices for classroom teachers, and emphasizes the importance of further inquiry in this area.

Few studies have been located that have taken into account the prior experiences of student teachers from their time as school pupils and as student teachers. In a follow-up to their study described in the preceding section (2.1.1.1.1), Garrett and Wrench (2008) explored how (a) exposing student teachers to a diverse range of personal physical activity experiences and (b) using guided reflection during practice teaching could be used to promote a more critical understanding of the diverse HPE experiences of school-aged pupils. They found that some student teachers who previously did not enjoy HPE were able to make connections to the HPE curriculum that they found more personally meaningful and employed activities that deviated from what they perceived to be the norm in many HPE programs (for example, yoga and tai chi rather than competitive team sports). Interestingly, several student teachers who had positive HPE experiences as school pupils seemed resistant to the critically-oriented perspective of HPE espoused in the program described by Garrett and Wrench (2008).

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5 The quality of the HPE program was reflected by practicing teachers’ responses to a survey given to teachers that included items relating to planning, implementing, assessing, evaluating, and reporting in HPE.
While several of the studies described above have detailed the nature of HPE experiences as school pupils, little is known about student teachers’ HPE experiences in pre-service teacher education. Such work may provide deeper insight into how teachers’ HPE biographies can be used to structure pre-service elementary HPE programs for classroom teachers. For example, it is not understood if, and to what extent, pre-service HPE courses can lead to change in how student teachers experience, think about, and practice HPE, or whether such programs perpetuate negative, “non-teaching” experiences that some student teachers experienced as school pupils. In essence, we know little of what goes on within what Darling-Hammond (2006a) described as the “black box” of teacher education. In speaking of teacher education research in general, she argued:

There has been [little] discussion about what goes on within the black box of the program – inside the courses and clinical experiences that candidates encounter – and how the experiences programs design for students cumulatively add up to a set of knowledge, skills, and dispositions that determine what teachers actually do in the classroom. (p. 11. Italics in original)

In recognizing this gap in the literature, this dissertation seeks to address not only the HPE experiences of student teachers from the time they were school pupils, but also the “black box” of what goes on within their teacher education program. If teachers’ experiences and their biographies (and having student teachers reflect on these phenomena) are viewed as integral to understanding the processes of learning to teach, such research is necessary if we are to improve how classroom teachers are prepared to teach HPE.

2.2.2 Summary of teacher learning

Teachers’ prior experiences and the nature of those experiences have been identified as profoundly important influences in the process of learning to teach (Britzman, 2003; Hammerness et al., 2005; Kennedy, 1999; Korthagen et al., 2006; Lortie, 1975; Loughran, 2006; Richardson, 1996; Wideen et al., 1998; Zeichner & Gore, 1990). In particular, Lortie’s (1975) notion of the apprenticeship of observation has been used to develop theories of learning to teach based on aspects of teachers’ biographies that considers their personal and school experiences. In the field of HPE, relationships have been identified between elementary classroom teachers’
HPE experiences as school pupils and as pre-service teachers with the quality of their HPE program (Morgan & Hansen, 2008a). This point is made especially problematic when other studies have found that many elementary classroom teachers view their prior HPE experiences negatively (DeCorby et al. 2005; Dwyer et al. 2008; Faulkner et al., 2008; Kirk, 2005; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b; Randall & Maeda, 2010; Xiang et al., 2002). Thus, it is clear that teacher educators need to provide student teachers with learning experiences that help them critically analyze and challenge their previous educational experiences and to learn ways to provide positive experiences for their own pupils.

Given the importance of teachers’ prior experiences of school, subject matter, and teaching and the influence these experiences have on their ideas and beliefs about teaching practice, theories of experience provide a useful theoretical grounding for this dissertation. In the following section I discuss several of the foundational principles of theories of experience in learning, which have been collectively identified as forming the basis of constructivism.

2.3 Theories of experience

In his theory of experience and education, Dewey (1938) explains that experiences are connected; that is, prior experiences shape and modify our present and future experiences. According to Dewey (1938) there are two primary and integrated criteria for interpreting the educational function of experience: continuity and interaction. “Continuity and interaction in their active union with each other provide the measure of the educative significance and value of an experience” (Dewey, 1938, p. 44).

Experiences are not static but dynamic, in that they move humans in positive or negative directions. Because experiences are described as moving forces, Dewey (1938) explains that they exist along a continuum, a notion that is summarized in the principle of continuity of experience: “every experience both takes up something from those which have gone before and modifies in some way the quality of those which come after” (p. 35). According to the principle of continuity of experience, the quality of an experience impacts upon the present and the future, and the quality acts in different ways on the individual. As Dewey states, for schools or teachers who wish to apply theories of experience, “it is not enough to insist upon the necessity of experience, nor even of activity in experience. Everything depends upon the quality of the experience which is had”. For instance:
If an experience arouses curiosity, strengthens initiative, and sets up desires and purposes that are sufficiently intense to carry a person over dead places in the future, continuity works in a very different way [to a negative experience]. Every experience is a moving force. Its value can be judged only on the ground of what it moves toward and into. (Dewey, 1938, p. 38)

For negative experiences “the principle of continuity of experience may operate so as to leave a person arrested on a low plane of development, in a way which limits later capacity for growth” (Dewey, 1938, p. 37). The consequences of a negative experience may be far-reaching in limiting further experiences, for “an experience may be such as to engender callousness; it may produce lack of sensitivity and of responsiveness. Then the possibilities of having richer experience in the future are restricted” (Dewey, 1938, pp. 25-26). In this sense, experiences profoundly shape not only how we interact with future experiences but also what we think, feel, and believe about the phenomena we have experienced. Experiences can therefore strongly influence how we live our lives. This has particular application in schools where positive or negative experiences with subject matter impact upon future experiences with related phenomena.

While experience shapes the attitudes and beliefs of an individual, there are other contributing factors to the construct. “Every genuine experience has an active side which changes in some degree the objective conditions under which experiences are had” (Dewey, 1938, p. 39). Thus, the second criterion for interpreting the educational value of experience is interaction. Dewey (1938) suggests:

An experience is always what it is because of a transaction taking place between an individual and what, at the time, constitutes his [or her] environment, whether the latter consists of persons with whom he [or she] is talking about some event of topic, the subject talked about being also a part of the situation; or the toys with which he [or she] is playing; the book he [or she] is reading; or the materials of an experiment he [or she] is performing. The environment, in other words, is whatever conditions interact with personal needs, desires, purposes, and capacities to create the experience which is had. (p. 43-44)
When interaction is viewed as a vital part of experience, by its very nature experience, and consequently learning, is social. What an individual learns in a situation, interaction, or environment becomes a tool to help understand and deal effectively with situations, interactions, and encounters with environments that follow (Dewey, 1938).

Since Dewey’s development of a theory of experience, the principles he expounded have helped to form a foundation for theories of learning (Bruner, 1986; Piaget, 1952; 1973; Piaget & Inhelder, 1962; Vygotsky, 1962; 1978). For example, the United States-based National Research Council (2000) argues:

[There] is a good deal of evidence that learning is enhanced when teachers pay attention to the knowledge and beliefs that learners bring to a learning task, use this knowledge as a starting point for new instruction, and monitor student’s changing conceptions as instruction proceeds. (p. 11)

The theoretical studies and empirical evidence considered by the National Research Council (2000) led them to highlight experience as one of three pillars of learning, suggesting: “all learning involves transfer from previous experiences. Even initial learning involves transfer that is based on previous experiences and prior knowledge” (p. 236). Thus, as shown in section 2.2 of this chapter, Hammerness et al. (2005) were correct in acknowledging the importance of the experiences that shaped student teachers’ preconceptions about teaching and learning.

In developing and refining theories of experience and the principles of continuity and interaction, the fundamental basis of constructivist theories (and variations on constructivism, such as social constructivism and radical constructivism) of learning have been formed. Constructivist approaches to education are now both common and popular in educational circles, a point reflected in policy documents and teacher education programs that are designed to influence what and how things are learned in school classrooms (Richardson, 1997). Rovegno and Dolly (2006) outline four core ideas of constructivist approaches to learning:

- Deep understanding and multiple connections support transfer to other contexts;
- Prior knowledge and experiences [shape learning];
- Learning is an active process of constructing knowledge, and;
- Knowledge is socially and culturally constructed.
The theoretical stance with which my philosophies and aims are most closely aligned is social constructivism, a variant on traditional views of constructivism. Richardson (1997) suggests that traditional constructivist theories are firmly rooted in the psychology of learning and the cognitive processes of meaning-making at an individual level. As an extension of this initial constructivist premise, social constructivist theories emphasize the importance of the social contexts in learning, arguing that learning is situated in social environments and interactions and the individual and environment change as a result of the learning process (Richardson, 1997). Beck and Kosnik (2006a) provide an overview of what a social constructivist approach might encompass in a classroom:

At the school level, social constructivism implies a form of learning in which students are fully engaged, find the process meaningful, and relate ideas to the real world to a considerable extent. Only in this way can they participate in constructing their knowledge and acquire the habits that make them lifelong learners. The teacher fosters a culture in the classroom that supports critical and productive inquiry. There is a strong sense of community and much collaborative learning. The learning experience is holistic: in addition to the social aspect, emotional, aesthetic, bodily, and other forms of expression are involved. This not only allows for broad personal development, but ensures the depth of understanding and experience needed for knowledge construction. (p. 2)

At the core of social constructivist theories of learning then is the idea that individuals construct their own reflecting on their knowledge based on prior experiences, interactions, environments, knowledge, beliefs, and ideas (Azzarito & Ennis, 2003; Beck & Kosnik, 2006a; 2006b; Vygotsky, 1962; 1978). Furthermore, in order to learn, learners are encouraged to critically reflect on experiences so that the educational process becomes one of building upon, reorganizing, and re-constructing experiences (Beattie, 2006; Korthagen et al., 2006).

The challenge for teacher educators thus lies in the opportunities to utilize student teachers’ experiences to shape powerful learning opportunities that challenge their notions of teaching based on their prior experiences. In teacher education, teacher educators need to create rich, complex approaches to studying beginning teachers’ meaning-making and interpretation of experiences, so that these experiences can be employed to shape meaningful learning

2.4 Chapter Summary

In this chapter I reviewed the literature that situates the core ideas of this dissertation, focusing on research in the broad fields of teacher education and teacher learning, and applying important ideas to findings of studies on elementary classroom teachers and HPE. Throughout, it became clear that the role of teachers’ prior experiences has a profound impact on their conceptions of teaching, learning, and schooling, and subsequently, theories of experience (e.g., Dewey, 1938) were identified as providing suitable theoretical grounding for this research.

In the following chapter I outline the methods used in this dissertation. Focus is directed toward: the context of the study, the methodological perspectives that frame the study, data gathering and analysis procedures, and the ethical considerations of the study.
Chapter 3
Methods

Introduction
In this chapter I outline the methods used in the dissertation. A broad interpretation of the term *methods* is adopted, where a discussion of methods includes related philosophical issues underpinning the methodology, the methods of research, and strategies of methods of data collection and analysis (Greene, 2006; Johnson, Onwuegbuzie & Turner, 2007). As such, the chapter contains five sections. In the first section the context of the study is outlined, including brief descriptions of the teacher education program and the research participants. In the second section the methodological perspectives that frame the study are described; specifically, the epistemology and methodology of a pragmatist approach to research. In the third section, the quantitative and qualitative methods that were used to gather data are described. In the fourth section, a description of the techniques used to analyze the data is provided. In the fifth section, the ethical considerations of the study are explained.

3.1 Study context

Windermere University\(^6\) is a large, research-focused university located in a Canadian urban centre. The teacher education program offers several options for individuals who wish to become elementary classroom teachers, including a 1-year post-baccalaureate Bachelor of Education (B.Ed.) degree, a 2-year Master of Teaching degree (M.T.), or a 2-year Master of Arts (M.A.) degree. In contrast to specialist teachers who focus on one or two subject areas, elementary classroom teachers are those teachers who are responsible for teaching the same pupils multiple subjects, such as mathematics, language arts, social studies, science, and so on. In local school districts most elementary teachers are responsible for teaching all of these (and often several more) subjects.

Approximately 9000 elementary and secondary student teachers graduated from pre-service teacher education programs in the province where Windermere University is located in 2010 (Ontario College of Teachers, 2010). Each year at Windermere University there are

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\(^6\) Pseudonyms are used throughout this dissertation when referring to individuals, groups, cohorts, or institutions.
approximately 650 students admitted to its elementary teacher education programs. For example, in approximate numbers, 550 student teachers were admitted to the elementary B.Ed. Program, 60 were admitted to the M.T. program, and 45 were admitted to the elementary M.A. program. Elementary student teachers in the B.Ed. program are assigned to one of eight cohorts, each consisting of approximately 60-70 student teachers. Each cohort has a different teaching focus, with some being sub-divided for those student teachers who wish to teach in the Primary/Junior (P/J) grades (K-6), and those wish to teach in the Junior/Intermediate (J/I) grades (4-10), while others may focus on, for example, teaching in urban settings. As an illustrative example of how one cohort may be organized, the “Urban Cohort” contains approximately 70 student teachers whose focus is on teaching in urban settings. Within this cohort, approximately 35 student teachers focus on teaching in the P/J grades, and approximately 35 student teachers focus on teaching in the J/I grades.

Since the vast majority of student teachers at Windermere enroll in the B.Ed. program, this research recruited participants from that program only. Further research may consider looking at one or more of the 2-year teacher education and certification programs to deepen our understanding of the processes and products of those programs in respect to health and physical education (HPE).

3.1.1 The requirements for learning to teach HPE at Windermere University

All elementary student teachers in the B.Ed. program at Windermere University are required to attend four HPE lessons which last for 3 hours each, for a total of 12 hours. That is, for each cohort, the P/J student teachers attend four 3-hour HPE lessons, and the J/I student teachers attend four 3-hour HPE lessons. Student teachers who opt to become certified in the P/J grades do not choose to specialize in certain teaching subjects, (for example, mathematics, science, or visual art); however, J/I student teachers are required to choose a subject area to specialize in. For those who elect HPE as their specialist teaching subject, they take an additional HPE course of 36 hours as well as the 12-hour HPE course. This research focuses on student teacher experiences in the 12-hour course because that is where the non-specialist student teachers learn to teach HPE.

In order to teach the large number of elementary student teachers in the B.Ed. program, there are four teacher educators who have responsibility for the elementary HPE courses. There is no specified curriculum or learning objectives that the HPE teacher educators are required to
address; thus, each teacher educator is responsible for developing and implementing her or his own HPE course syllabus. Aside from assignments within each HPE teacher educator’s syllabus that may address the practice teaching experience, there is no HPE requirement for the practice teaching component of the teacher education program.

3.1.2 Research participants

Participants were drawn from two populations within the elementary teacher education program at Windermere University; student teachers and teacher educators. Both groups were studied over the 2009-2010 academic year, however, more time and energy was devoted to collecting data and learning about the experiences from student teachers as this group’s experiences were the focus of the research questions.

For the student teachers at Windermere University, an open invitation was given to a sample of student teachers from six cohorts in the B.Ed. elementary teacher education programs. These six cohorts included student teachers who were focusing on becoming teachers in both P/J and J/I grades. From those student teachers who were willing to participate in the research, all were asked to sign a letter of informed consent and complete two surveys. On the letter of informed consent, student teachers were also asked to indicate whether they were willing to participate in several interviews. From those student teachers who were willing to be interviewed, a purposive sample of ten elementary student teachers was recruited, with the aim of understanding their HPE and physical activity experiences. For the teacher educators at Windermere University, all four were invited to participate, however, only three responded to the invitation. These three participated in a brief interview to explore how each structured the pre-service HPE course.

Table 3.1 provides information regarding the breakdown of cohorts from which student teachers were drawn for the research, as well as detailing which of the four teacher educators were responsible for each cohort. It should be noted that the information provided in this table is to provide contextual information for the reader. Due to ethical considerations and the potential for bias in the gathering and analysis of data, the practices of the teacher educators were not part of this research.

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7 More specific details about the content of the HPE course are provided in Chapter Five.
8 Because a mixed methods approach was used in this research, several sampling strategies were employed (Kemper, et al., 2003). The various sampling techniques used are described in the sections on quantitative (section 3.3.1.2) and qualitative (section 3.3.2.1.2) approaches in the chapter.
Table 3.1: Windermere University Research Participant Information

<table>
<thead>
<tr>
<th>Cohort Name</th>
<th>Total Students</th>
<th>P/J Students</th>
<th>J/I Students</th>
<th>HPE Teacher Educator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>70</td>
<td>35</td>
<td>35</td>
<td>Trevor</td>
</tr>
<tr>
<td>Uptown</td>
<td>72</td>
<td>-</td>
<td>72 (2 groups)</td>
<td>Trevor</td>
</tr>
<tr>
<td>Northern</td>
<td>60</td>
<td>30</td>
<td>30</td>
<td>Rebecca</td>
</tr>
<tr>
<td>Eastern</td>
<td>72</td>
<td>72 (2 groups)</td>
<td>-</td>
<td>Olivia</td>
</tr>
<tr>
<td>Southern</td>
<td>61</td>
<td>37</td>
<td>24</td>
<td>Shannon</td>
</tr>
<tr>
<td>Western</td>
<td>71</td>
<td>71 (2 groups)</td>
<td>-</td>
<td>Shannon</td>
</tr>
</tbody>
</table>

As shown in Table 3.1., within each cohort, one teacher educator typically teaches all student teachers but will do so in two separate groups. For example, Trevor is the HPE teacher educator for the “Urban Cohort” and taught both the P/J group and the J/I group in that cohort. He also taught HPE for the “Uptown Cohort”, which was comprised of two groups of J/I student teachers.

3.2 Methodological perspectives

The purpose of this research is to understand, from both broad and detailed perspectives, the HPE experiences of student teachers who are learning to become elementary classroom teachers at Windermere University. Based on the purpose of the research and the research questions that were developed, I chose to adopt a pragmatist approach to the inquiry using mixed methods to gather data. The following section describes and justifies the philosophical underpinnings of a pragmatist approach for this research.

3.2.1 Rationale for choosing a pragmatist approach

Paradigms are the presiding models that frame ways of thinking in a field or discipline (Kuhn, 1962), and contain “a set of assumptions about the world, and about what constitute proper techniques and topics for inquiring into that world” (Punch, 2009, p. 16). Throughout the
latter half of the twentieth century the “paradigm debates” saw advocates of positivism (e.g., Johnston & Pennypacker, 1980) and various forms of interpretivism\(^9\) (e.g., Guba, 1990; Lincoln & Guba, 2000) justifying their own, and criticizing one another’s, beliefs and assumptions regarding worldviews, methods of study, and the validity of outcomes for research that used one paradigmatic approach or the other.

Rather than steadfastly adopting the philosophies and methodologies of a single paradigmatic approach, some researchers sought to bridge the gap between positivism and interpretivism by choosing a pragmatic approach (Maxcy, 2003). According to Punch (2009), “the essential idea of pragmatism is to reject the either-or choices and metaphysical concepts associated with the paradigm wars, and to focus instead on ‘what works’ in getting research questions answered” (p. 291). Drawing on the earlier work of Peirce (1878/1989) and Dewey (1931/1963), pragmatists view positivist and interpretivist approaches as compatible rather than in opposition to one another (Cherryholmes, 1999; Howe, 1992; Teddlie & Tashakkori, 2003).

Pragmatists anticipate outcomes and believe that the purpose of inquiry is not to discover timeless truths because the search for truth(s) and the process of inquiry is continual and involves multiple interpretations and critiques (Cherryholmes, 1999). Thus, pragmatists do not view truth as certain, absolute, or generalizable across time and contexts (as traditionally assumed by positivists) but rather that truth is considered to be what works (Tashakkori & Teddlie, 1998). Rorty (1979) explains that given the processes and outcomes of inquiry, pragmatism encourages us to see truth as what may be better to believe, rather than as an accurate representation of reality. Further, Biesta and Burbules (2003) argue that by adopting a pragmatist approach, educational researchers consciously attempt to make links between theory and practice – a gap that both positivist and interpretivist researchers have been criticized for widening.

According to Punch (1998), choosing a pragmatist approach does not mean that a researcher ignores paradigmatic issues of inquiry. He cautions:

> These issues are always present to some extent, even if implicitly: any research makes assumptions, especially about how questions are answered and how knowledge is developed, and about the nature of reality and of data. (Punch, 1998, p. 3)

\(^9\) Variations of interpretivist beliefs include, but are not limited to, constructivists, critical theorists, feminists, and poststructuralists (Punch, 2009).
While recognizing the importance of paradigmatic issues, I have chosen to adopt a pragmatist approach whereby the first priority was to stress what the research is trying to find out then to address matters of methods used or select the paradigm underlying the method. This process embodies a pragmatist approach, where once a clear view of the research questions was established, I then asked what data is necessary to answer those questions and selected the methods that were most appropriate to answer those questions (Punch, 2009). In order to best answer the research questions, often pragmatist research mixes or combines two or more research methods.

3.2.2 Pragmatism and mixed methods research

The underlying rationale for adopting a pragmatist approach and using mixed methods research is that more can be learned about a research topic if the strengths of qualitative research are combined with the strengths of quantitative research, while compensating at the same time for the weaknesses of each method (Creswell & Plano Clark, 2007; Punch, 2009). Mixed methods research is summarized as “an approach to knowledge (theory and practice) that attempts to consider multiple viewpoints, perspectives, positions, and standpoints (always including the standpoints of qualitative [interpretive] and quantitative [positivist] research)” (Johnson et al., 2007, p. 113). Thus, mixed method researchers see interpretivist/qualitative approaches and positivist/quantitative approaches as being compatible rather than antagonistic, and do not necessarily advocate one approach over another; all approaches are considered to provide valuable, although only partial, worldviews (Teddlie & Tashakkori, 2003).

An advantage of mixed methods research is “that it enables the researcher to simultaneously answer confirmatory and exploratory questions, and therefore verify and generate theory in the same study” (Teddlie & Tashakkori, 2003, p. 15). Thus, qualitative methods can be used for both generating and verifying theory (with a particular strength in theory generation), as can quantitative methods (but with a particular strength in theory verification) (Punch, 2009).

Several studies of elementary classroom teachers and HPE have adopted mixed methods approaches (c.f. Morgan, 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b; Xiang et al., 2002), with differences evident in the aims of the research and in the nuances of the research design. In the next section the research design for this dissertation is described and the present research design is differentiated from similar research that has been conducted on elementary classroom teachers and HPE.
3.3 Data collection

According to Tashakkori and Teddlie (2003), mixed methods designs are more complex than simply combining qualitative and quantitative methods because true mixed methodologies incorporate multiple approaches in all stages of the study. Thus, the researcher uses the data collected from both qualitative and quantitative approaches to inform the subsequent collection and analysis of the other. By triangulating data in this manner, multiple inferences can then be made from each data source, which can lead to stronger and complimentary inferences to be made (Teddlie & Tashakkori, 2003).

As highlighted in Chapters One and Two, several investigations of HPE and elementary classroom teachers have broadened our understanding of the topic and some of the relevant issues (DeCorby et al., 2005; Dwyer et al., 2008; Faucette et al., 2002; Faulkner et al., 2004; Xiang et al., 2002). In particular, the work of Morgan and colleagues has influenced the rationale and design of this dissertation research. In a broad sense, the studies by Morgan and his colleagues (e.g., Morgan, 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b) involved identifying and examining the relationship between variables that influence how classroom teachers approach teaching HPE. Although the research done by Morgan and his colleagues employed mixed methods, much of the data gathering and analysis was quantitatively-driven. Using mainly survey data, they explored relationships between several personal and teaching variables, such as personal school experiences with HPE, attitudes toward HPE, and perceived barriers to implementing an HPE program (Morgan & Hansen, 2008a; 2008b) using complex statistical procedures. The quantitative aspects of their research were supplemented by interviews, which helped to further explain the predictive relationships inferred from the quantitative data.

While the research discussed previously has helped to develop broad, generalized understandings of aspects of HPE and classroom teachers, due to the nature of the data gathered we cannot yet claim to have deep understandings of the research problem – something Morgan (2008) identified as both a limitation of his research and as a suggestion for future research – nor can we claim to understand the extent to which findings are similar across different contexts. In order to develop deep understandings of the HPE experiences of elementary student teachers in specific contexts, it is necessary to gather rich, descriptive data using qualitative methods (Wolcott, 1994). Deep understandings obtained from detailed qualitative data can be
supplemented by developing a broad understanding of student teachers’ HPE experiences, which may be achieved using quantitative methods. Using a mixed methods approach that involves gathering and analyzing multiple data sources, and shifting constantly from one to the other, may strengthen the inferences that can be made about elementary student teachers and HPE in the context in which this research took place. Further, connections can then be made to previous research located in other contexts.

The following sections outline the quantitative and qualitative approaches that were used to collect data in the study. Although this research was qualitatively driven (in contrast to Morgan and his colleagues’ work which was quantitatively driven), I address the quantitative approaches first, as this reflects the sequence used in the research.

3.3.1 Quantitative methods

A survey provides numeric descriptions of trends, attitudes, or opinions of a population by studying a sample of that population (Creswell, 2009). A particular advantage of using surveys is that it allows the researcher to gather and analyze large amounts of data efficiently (Punch, 2009). Therefore, it is possible to infer broad understandings of the phenomena being measured.

There were two main aims for conducting a survey in this research. The first aim was to broadly understand aspects of elementary student teachers’ HPE and physical activity experiences and perceptions prior to attending the HPE course at Windermere University. Analyzing participants’ responses before they attended the HPE course also allowed me to invite a purposive sample of student teachers to be interviewed, based on their responses to the survey. The second aim of conducting a survey was to compare student teachers’ responses before and after they completed the HPE course. Comparing the pre- and post-test results may indicate changes in student teachers’ views, approaches, and practices for teaching HPE that occurred throughout the teacher education program.

3.3.1.1 Survey design

A descriptive, self-controlled design was used in this study. Descriptive surveys produce information on groups and phenomena that already exist and no new or experimental groups are created, while a self-controlled design uses a group of participants to serve as its own
comparison (Fink, 1995). For example, one existing group of student teachers was surveyed about their HPE and physical activity experiences at two points in time. Comparing the information from before and after their completion of an HPE teacher education course may indicate changes for that group of student teachers. Moreover, because the data from the group were not compared with the data from another control group this represents a self-controlled design.

There are several biases and weaknesses when self-controlled survey designs are used on their own, including an inability to account for external differences, such as the influence of maturation, or the effects of participating in the survey itself (Fink, 1995). However, in the present research, the survey is not being used in isolation; the purpose of conducting the survey is to provide broad information that can be used to complement the more detailed interview data. Furthermore, the information may be of use to the university as a form of program evaluation. Thus, the biases and weaknesses evident in self-controlled survey designs may be slightly offset in this instance by the employment of other methods.

The pre-test survey was administered at the beginning of the academic year (September, 2009), prior to student teachers attending the pre-service HPE teacher education course. The post-test survey was administered at the end of the academic year (April, 2010), following the student teachers’ completion of the entire academic program, including the HPE course and both practice teaching placements. Completion of the surveys was voluntary and was done at a time convenient to the student teachers.

3.3.1.2 Population and sample

Because the research was framed by a pragmatist approach, the objectives were not to generalize the survey findings across contexts (Tashakkori & Teddlie, 1998) but to provide partial understandings of the HPE experiences of the student teacher population in the context that was being studied. The methodological principles of pragmatism suggest that it is not necessary to select a random sample of student teachers whose results may provide representativeness of a larger population. Rather than generalizing the findings across contexts and populations, the principles of verisimilitude seem more appropriate for this study, where readers are invited to locate instances in the findings that “ring true” for their specific circumstances (Denzin & Lincoln, 2003). Thus, a purposive, or convenient, sample of elementary student teachers from Windermere University was surveyed. The sample was
convenient in the sense that it was easily accessible for me to research and provided an efficient means to gather data from a section of the population being studied.

In the 2009-2010 academic year in which this study took place there were 533 elementary student teachers enrolled in eight cohorts in the B.Ed. program at Windermere University. I approached the coordinators of six of the eight coordinators about inviting their student teachers to participate in the pre-test survey\textsuperscript{10}. All six agreed; however, due to logistical reasons, for the Northern and Southern cohorts, it was only possible to survey approximately half of the total number of students in each cohort in pre-test conditions (30 out of 60 and 35 out of 61, respectively). Guidelines for survey response rates differ based on the aims of individual research, however, based on Babbie’s (2007) suggestions there was a very strong response to the pre-test survey, being completed by 308 out of 406 student teachers (76%). Table 3.2 provides information about the survey participants and the completion rates of surveys in pre-test conditions. I administered the surveys in a face-to-face manner at the end of one of the classes for each cohort. The surveys took approximately 15 minutes to complete and student teachers were informed that they could complete the surveys at home if they preferred and then leave them with the cohort coordinator for me to pick up the following week. The vast majority of student teachers completed the surveys in class. The sample consisted of 248 female (80.5 %) and 60 male (19.5 %) elementary student teachers. While skewed toward females, the distribution of female to male student teachers closely reflects the population of elementary teachers in Ontario. When analyzed according to grade level specializations and teaching focus, 205 student teachers (66.6%) were studying to become certified in the P/J grades, while 103 student teachers (33.4%) were studying to become certified in the J/I grades.

\textsuperscript{10}The remaining two cohorts took their classes “off-campus” and so were not approached to take part in the study.
Table 3.2: Survey Participants: Pre-test

<table>
<thead>
<tr>
<th>Cohort</th>
<th>No. Students</th>
<th>No. Surveys Completed (%)</th>
<th>Gender</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>PJ</td>
</tr>
<tr>
<td>Urban</td>
<td>70</td>
<td>67 (96%)</td>
<td>50</td>
<td>17</td>
</tr>
<tr>
<td>Uptown</td>
<td>72</td>
<td>69 (96%)</td>
<td>53</td>
<td>16</td>
</tr>
<tr>
<td>Northern</td>
<td>60</td>
<td>29 (48%)</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>Eastern</td>
<td>72</td>
<td>70 (97%)</td>
<td>55</td>
<td>15</td>
</tr>
<tr>
<td>Southern</td>
<td>61</td>
<td>35 (58%)</td>
<td>32</td>
<td>3</td>
</tr>
<tr>
<td>Western</td>
<td>71</td>
<td>38 (54%)</td>
<td>33</td>
<td>5</td>
</tr>
<tr>
<td>Totals</td>
<td>406</td>
<td>308 (76%)</td>
<td>248</td>
<td>60</td>
</tr>
</tbody>
</table>

The post-test survey was administered to a sample of student teachers from five of the eight cohorts in the B.Ed. program. Again, due to logistical reasons one of the coordinators (of the Northern Cohort) was not able to accommodate my request to survey the student teachers in their cohort. However, this was offset slightly in that I was able to administer the post-test survey to all student teachers in the Southern cohort where only half of that cohort responded to the pre-test survey. Despite this “messiness” in collecting data from the post-test survey, there was still a strong response rate (Babbie, 2007) with 285 out of 346 (83%) student teachers completing the survey. Table 3.3 provides information about the survey participants and the completion rates of surveys in pre-test conditions. According to gender and grade level specialization, the make-up of student teachers who completed the post-test survey was similar to the make-up who completed the pre-test survey. The sample consisted of 228 female (80.0 %) and 57 male (20.0 %) elementary student teachers. Analysis of grade level specializations in post-test conditions revealed that 180 student teachers (63.2%) were studying to become certified in the P/J grades, while 105 student teachers (36.8%) were studying to become certified in the J/I grades.
### Table 3.3: Survey Participants: Post-test

<table>
<thead>
<tr>
<th>Cohort</th>
<th>No. Students</th>
<th>Surveys completed (%)</th>
<th>Gender</th>
<th>Grade Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Urban</td>
<td>70</td>
<td>58 (83%)</td>
<td>43</td>
<td>15</td>
</tr>
<tr>
<td>Uptown</td>
<td>72</td>
<td>55 (76%)</td>
<td>41</td>
<td>14</td>
</tr>
<tr>
<td>Eastern</td>
<td>72</td>
<td>63 (88%)</td>
<td>48</td>
<td>15</td>
</tr>
<tr>
<td>Southern</td>
<td>61</td>
<td>55 (90%)</td>
<td>47</td>
<td>8</td>
</tr>
<tr>
<td>Western</td>
<td>71</td>
<td>54 (76%)</td>
<td>49</td>
<td>5</td>
</tr>
<tr>
<td>Totals</td>
<td>346</td>
<td>285 (83%)</td>
<td>228</td>
<td>57</td>
</tr>
</tbody>
</table>

### 3.3.1.3 Instrumentation

A self-administered questionnaire was developed, which included background information on each student teacher, as well as several scales from an established instrument developed by Faulkner et al. (2004) that measures student teachers’ intentions to teach HPE. Permission was granted to use parts of the instrument for this study (G. Faulkner, personal communication, Apr. 24, 2009). Consistent with a pragmatist approach the decision to use a modified version of an existing instrument (i.e., Faulkner et al., 2004) was made according to reasons proposed by Punch (2009), who states:

> We would need good reason for passing over an already existing instrument, particularly if the variable is a central variable in a research area. For this type of variable, I would not recommend developing a new measure, especially if a reasonable instrument is already available. I would modify this conclusion, however, for the common research situation where ad hoc quantitative data can be obtained with rating scales: attitudes towards specific issues are a good example… [T]here is an important role for short rating scales, tailor-made to the purposes and context of a particular project. They can be used in a variety of
research situations, including qualitative ones, and for a variety of research purposes. They have great flexibility, and they can assist in making the comparisons we want. (p. 243)

The original survey developed by Faulkner et al., (2004) was comprised of items and scales that represented the following categories: (i) behavioural intentions to teach HPE, (ii) attitude toward teaching HPE, with the subsections of beliefs and outcome evaluation (iii) subjective norms, (iv) perceived behavioural control of teaching HPE, (v) self-efficacy, or confidence in ability to overcome barriers to teaching HPE, (vi) self-identity for physical activity and HPE teaching behaviours, (vii) past teaching behaviours, and (viii) personal stage of physical activity.

In line with Gratton and Jones’s (2004) and Punch’s (2003; 2009) recommendation to use parts of existing surveys, several complete scales from the survey developed by Faulkner et al. (2004) were included in a “tailor-made” pre-test survey to address the research questions. Specifically, the scales that represented self-identity for physical activity and HPE teaching behaviours; self-efficacy/confidence in ability to overcome barriers to teaching HPE; and personal stage of physical activity were included in the pre-test survey.

For the self-identity for physical activity and HPE teaching scale, respondents were asked about the extent to which they agreed or disagreed with four sentences related to teaching HPE. Each sentence began with: “I think of myself as …” which was followed by the following four responses that were linked to self-identity to teach HPE:

a) the sort of person who teaches HPE.
b) someone who generally thinks about the health benefits of HPE.
c) a health-conscious person
d) a person who thinks about my students’ health.

The four items assessing self-identity were scored on a 7-point Likert scale with the anchors strongly agree/strongly disagree. When administered to a sample of student teachers in the United Kingdom, Faulkner et al. (2004) found the internal consistency of the self-identity scale to be satisfactory (Cronbach α = 0.85). Although Faulkner et al. (2004) chose the term “self-identity”, I decided to omit the “self-” prefix based on Jenkins’s (2008) conceptualization of
identities as being comprised of an interaction between self-image and public image. As Jenkins (2008) states: “Identifying ourselves, or others, is a matter of meaning, and meaning always involves interaction” (p. 17). Hence, I have chosen to adopt a broad, socially driven view of identity that acknowledges the views of self and others (see section 4.2.1 for further detail).

To assess self-efficacy, participants were asked to indicate their level of confidence to overcome seven salient barriers for classroom teachers to teach HPE identified in a pilot study by Faulkner et al. (2004) and in the educational literature. The seven barriers were: lack of space, lack of equipment, lack of time, bad weather, lack of confidence, lack of student interest, and lack of training. Participants were asked how confident they were in overcoming each barrier on a 5-point Likert scale from very confident to very unconfident. Faulkner et al. (2004) found the internal consistency of this scale to be satisfactory also (Cronbach α = 0.83).

The other scale included assessed participants’ personal stage of physical activity measured on a nominal scale. The personal stage of physical activity scale was developed using a stage algorithm (Faulkner et al., 2004). Participants were asked which of six items “best describes your current physical activity and exercise pattern?” With physically active defined as “a moderate level” for “at least 30 minutes on most days of the week”, among the options were: “I am not physically active and I don’t intend to start”, “I am physically active once in a while but not regularly”, and “I am physically active regularly and have been so for longer than 6 months.”

Because I used all items within the specific scales, I assumed that some of the psychometric integrity of those scales would be upheld, particularly those related to content validity. However, due to different, albeit slight, cultural and contextual differences in the samples used in this study and that conducted by Faulkner et al. (2004) with student teachers in the United Kingdom, I conducted reliability analyses using Cronbach’s alpha (α), the results of which are described in section 3.4.1 of this chapter.

From the original instrument developed by Faulkner et al. (2004), I chose not to include the sections assessing behavioural intentions to teach HPE, attitude toward teaching HPE, subjective norms, perceived behavioural control of teaching HPE, and past teaching behaviours. I chose to exclude these sections for three main reasons. First, the purpose of the study conducted by Faulkner et al. (2004) was to test the utility of the theory of planned behaviour; as such, many items in the survey were based on the respondent’s intent to “teach physical education for 2 hours per week” and as such, specifically included this phrase, which was not relevant to this
research. Second, Faulkner et al. (2004) used a sample of student teachers who had already had a field experience placement in their pre-service teacher education program. Thus, student teachers in the sample would have had insights into what the experience of teaching HPE might be like in schools. Because the pre-test survey in my study was conducted at the beginning of the teacher education program, the student teachers who comprised the sample used in my study may not have had any teaching experience, nor been in schools when they responded to the survey in pre-test conditions. Third, the complete instrument (Faulkner et al., 2004) is quite lengthy (8 pages and more than 80 items) and the scales I chose to exclude were not thought to infer sufficient insights that would help in answering my research questions.

Despite my decision to administer the survey efficiently in terms of time, two further sections were added to the three scales developed by Faulkner et al., (2004), including one that obtained demographic data from the respondents, as well as an open-ended section that provided student teachers with opportunities to add further thoughts or feelings – which are constructs of attitude (Silverman & Subramaniam, 1999) – about teaching HPE. The attitude scale developed by Faulkner et al. (2004) asks participants to respond to statements regarding teaching HPE for two hours a week – consistent with reform efforts in the United Kingdom at the time of the survey development – and it was thought that the two open-ended items I used would better help to address the research questions. As such, the instrument developed for this study was flexible in that it used components of a pre-existing instrument but also allowed me to specifically address the research questions and obtain a broad understanding of the student teachers’ experiences of HPE prior to the pre-service course. The pre-test survey can be seen in Appendix A and the techniques used to determine reliability for the tailor-made instrument are described in section 3.4.1 later in this chapter.

The survey administered in post-test conditions asked the same questions to those included in the pre-test survey. The sections that asked participants about demographic data, identity, self-efficacy, and personal stage of physical activity (Faulkner et al., 2004) were identical in pre- and post-test conditions; which allowed me to determine any change in student teachers’ responses to those items from pre- to post-test. The post-test survey can be seen in Appendix B and the techniques used to determine reliability for the tailor-made post-test instrument are described in section 3.4.1.
3.3.2 Qualitative methods

Qualitative research methods have several features and strengths. Patton (2002) identified several of these characteristics:

Qualitative methods facilitate study of issues in depth and detail. Approaching fieldwork without being constrained by predetermined categories of analysis contributes to the depth, openness, and detail of qualitative inquiry. Qualitative methods typically produce a wealth of detailed information about a small number of people and cases [than in quantitative research]. This increases depth of understanding of the cases and situations studied but reduces generalizability. (p. 14)

Corbin and Strauss (2007) suggest that perhaps the most important reason that a researcher chooses to use qualitative research is to view the world vicariously through the perspectives of the research participants, with the hope of developing knowledge from the discoveries. Qualitative research involves collecting and studying a variety of materials that describe experiences, thoughts, and meanings in the lives of individuals (Denzin & Lincoln, 2003). Punch (2009) explains that most qualitative data is gathered from observation, interviews, or documents, or what Wolcott (1994) refers to respectively as data gathered from experiencing, enquiring, or examining.

Another important feature of research informed by an interpretivist perspective concerns contexts and generalization. Macdonald et al. (2002) stated:

Unlike claims of the positivist tradition, an interpretive perspective neither predicts nor generalizes behaviour, events, or actions. Thus, the findings from one study are difficult to compare with the findings of another study. Time, place, and participants all differ and, therefore, so will the findings. (p. 139)

In line with these views, the findings from the present research will only represent the time, place, and participants that were studied, and claims are not made for representativeness of other populations of elementary student teachers.
3.3.2.1 Interviews

Interviewing can provide a wealth of information. It is particularly effective when it is not possible to observe behaviour, feelings, or how people interpret the world around them, and is useful when we are interested in events that occurred in the past and are impossible to replicate (Merriam, 2009, p. 88). According to Kvale (2007), the purposes of a qualitative research interview are “to understand the world from the subjects’ points of view, to unfold the meaning of peoples’ experiences, to uncover their lived world prior to scientific explanations” (p. xvii). While the purpose of conducting interviews is to understand the world from the perspective of the research participants, the relationship between the participants and the interviewer(s) profoundly shapes the nature and quality of the information gathered and the ways that it is interpreted. As Clandinin and Connelly (1998) point out: “The way an interviewer acts, questions, and responds in an interview shapes the relationship and, therefore, the ways participants respond and give accounts of their experience” (p. 165).

There are different types of interviews, such as structured, semi-structured, and unstructured interviews, which may be conducted individually or in a focus group (Fontana & Frey, 2000). Semi-structured interviews allow the researcher to make good use of the advantages of both the structured and unstructured interview, while avoiding their detractions (Kosnik, Cleovoulou & Fletcher, 2009). In semi-structured interviews the researcher identifies the broad categories to be investigated and generates questions. Probe questions can be used to extend comments, provide explanations, give the rationale for practice, and explore responses more deeply (Kosnik et al., 2009). Also, the participant can lead the interview in new directions that may provide perspectives not originally anticipated by the researcher.

3.3.2.1.1 Interview design

Semi-structured interviews were conducted with a purposive sample of ten student teachers in three stages. First, all ten student teachers were interviewed before they attended the HPE course (Sept.-Oct., 2009), to gather descriptions of their prior experiences of HPE and physical activity, and to understand how these experiences shaped, for example, their current attitudes, knowledge, and perceived skills for teaching HPE. Second, the same ten student teachers were interviewed immediately after completing the HPE course (Jan.-Feb., 2010), with the aim of understanding their HPE experiences throughout the HPE course. In the third stage,
interviews were conducted with seven of the same ten student teachers following their second practice teaching placement (Apr.-Jul., 2010), to understand their experiences of teaching HPE in schools; to address how they felt about teaching HPE in elementary schools; and to explore whether the student teachers felt that the HPE course led to any changes in their perspectives or practices of teaching HPE. While all ten student teachers were approached for a third interview, only seven responded to the invitation, representing some attrition throughout the research process (see the introductory section of Chapter Six for further explanation).

Each of the three HPE teacher educators who agreed to participate in the research were interviewed once to gather descriptions of how they structured the HPE course. As well as hearing from the teacher educators themselves, other purposes of conducting interviews with the teacher educators were to contextualize the student teachers’ comments and to triangulate interview data from student teachers, particularly those data pertaining to the pre-service HPE course at Windermere University. These interviews were conducted in January 2010.

Clandinin and Connelly (1998) acknowledge that the interviewer is the key research instrument when employing this method of data gathering. Kvale (2007) comments:

A good interviewer knows the topic of the interview, masters conversational skills and is proficient in language, with an ear for his or her subjects’ linguistic style. The interviewer must continually make on-the-spot decisions about what to ask and how; which aspects of a subject’s answer to follow up, and which not; which answers to comment and interpret, and which not. The interviewer should have a sense for good stories and be able to assist the subjects in the unfolding of their narratives. (p. 81)

In the introduction of this dissertation I outlined my experiences as a teacher of secondary HPE and teacher educator of elementary HPE (see Section 1.4). Some may view my lack of experience as a teacher in elementary schools as a factor that may have limited the extent to which I was able to gather credible information from research participants, and which may have influenced the trustworthiness of the interview data gathered. Further, my position as a teacher and teacher educator of HPE may also have influenced participants’ thoughts about the responses I desired. For instance, I would imagine that several participants assumed that I was an advocate
for HPE in schools, so they may have felt the need to respond positively to questions about their HPE experiences.

I used several strategies to counter these potential challenges to the trustworthiness of the data gathered. For example, I made extended efforts to explain the nature of the research to each participant at the beginning of each interview, paying particular attention to my desire to improve how elementary student teachers are prepared to teach HPE based on their thoughts, views, and experiences. For participants whose pre-test survey responses revealed mostly negative experiences, I outlined how understanding the nature of these experiences could be used to improve HPE programs. I also conducted the interviews in a “neutral” location (such as a seminar room and not in my office or the gymnasium) that was free of HPE paraphernalia that may have influenced the nature of participants’ responses. During the second and third phases of interviews that were focused on participants’ experiences of the HPE program at Windermere University, and the practice teaching experience, respectively, I reminded participants that their responses would not be revealed to their HPE instructors, and if they were any information related to their identities would be removed.

Hammersley (1998) argues that the researcher must assess the plausibility and credibility of qualitative research claims using their knowledge of current research and by using good judgment pertaining to the phenomenon. Given the research on elementary classroom teachers’ experiences of HPE described in Chapters One and Two, I generally felt that participants’ responses to the interview questions reflected findings from other studies or contextual features of HPE. To be sure, participants’ “truths” may be different from my interpretation, however, their responses in Chapters Four to Six do not generally indicate that they were lying to me to gain favour, or the like.

Due to the sequence of data collection methods, it was possible to use data obtained from the pre-test survey to assist in the development of interview items and their analysis. Moreover, consistent with a modified grounded theory approach, or emergent design, analysis of data from each interview helped me to generate questions and topics that were followed up and discussed in subsequent interviews. A grounded theory approach to data gathering and analysis is discussed further in section 3.4.2 later in this chapter.

Each interview was tape-recorded and I made notes during the interview. The three interviews with each of the student teachers took approximately one hour and all were conducted at a time and place convenient to the participants. I transcribed each interview and any references
made to participants, specific groups, or institutions were substituted with pseudonyms. Although the interviews were not transcribed verbatim, I made a conscious effort to have the interview data accurately represent the participants’ views. The reason I chose not to transcribe the interviews verbatim was because I thought that pauses (represented by “um”, “ah”, and so on) and half-made sentences made reading difficult and did not contribute to how the research questions were addressed. As Kvale (2007) states: “Verbatim transcriptions of oral speech, with its characteristic repetitions, digressions, pauses, ‘mms’, and the like, are difficult to grasp when in written form” (p. 132). In section 3.4.2.3.1 I discuss how I used member checks to ensure that the transcribed interviews accurately reflected the participants’ experiences, thoughts, feelings, and views.

3.3.2.1.2 Sampling

A purposive sample was drawn from the results of the pre-test survey, representing a sequential sampling technique (Kemper, Stringfield & Teddlie, 2003), as information from the larger sample of elementary student teachers was used to identify potential candidates who would make up the second sample to be interviewed. The sample was purposive in that there was “some purpose or focus in mind” when selecting participants (Punch, 2009, p. 162). For the student teachers interviewed, I selected participants who represented a mix of backgrounds and experiences. For example, I invited student teachers from the P/J and J/I groups of several cohorts, females and males, and student teachers who had positive and negative experiences of HPE and physical activity. However, I selected more participants who had negative HPE experiences prior to the teacher education program because I was interested in the degree and extent to which positive change could occur. As most elementary student teachers at Windermere University are female, this skewed the sample of student teachers in terms of gender. Information about participants in the interview process is presented in Table 3.4. In the table I also included the number of interviews each participant completed.

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11 In the pre-test survey and on a scale of 0-4, (0 = not at all, 4 = a great deal), student teachers were asked: “To what extent did you enjoy HPE as a school pupil?” I assigned scores of 0 and 1 as negative, 2 as neutral, and 3 and 4 as positive.
Table 3.4: Interview Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Gender</th>
<th>Grade Level (If JI: Teachable Subject)</th>
<th>Cohort</th>
<th>HPE Experience (Score: 0-4)</th>
<th>Interviews completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew</td>
<td>M</td>
<td>JI: Language Arts</td>
<td>Urban</td>
<td>Neutral (2)</td>
<td>3</td>
</tr>
<tr>
<td>Natasha</td>
<td>F</td>
<td>JI: Language Arts</td>
<td>Urban</td>
<td>Negative (1)</td>
<td>2</td>
</tr>
<tr>
<td>Jane</td>
<td>F</td>
<td>JI: Science</td>
<td>Uptown</td>
<td>Positive (4)</td>
<td>3</td>
</tr>
<tr>
<td>Joey</td>
<td>M</td>
<td>JI: Drama</td>
<td>Uptown</td>
<td>Negative (0)</td>
<td>3</td>
</tr>
<tr>
<td>Skylar</td>
<td>F</td>
<td>JI: HPE</td>
<td>Uptown</td>
<td>Negative (0)</td>
<td>2</td>
</tr>
<tr>
<td>Ralph</td>
<td>M</td>
<td>PJ</td>
<td>Northern</td>
<td>Negative (1)</td>
<td>3</td>
</tr>
<tr>
<td>Campbell</td>
<td>F</td>
<td>PJ</td>
<td>Eastern</td>
<td>Neutral (2)</td>
<td>3</td>
</tr>
<tr>
<td>Julia</td>
<td>F</td>
<td>PJ</td>
<td>Eastern</td>
<td>Negative (0)</td>
<td>3</td>
</tr>
<tr>
<td>Anastasia</td>
<td>F</td>
<td>PJ</td>
<td>Western</td>
<td>Negative (0)</td>
<td>2</td>
</tr>
<tr>
<td>Hailey</td>
<td>F</td>
<td>PJ</td>
<td>Western</td>
<td>Neutral (2)</td>
<td>3</td>
</tr>
</tbody>
</table>

3.3.3 Triangulation

According to Greene (2007), triangulation “seeks convergence, corroboration, or correspondence of results from multiple [or mixed] methods” (p. 100). Results from the quantitative methods used to collect data can then be compared with qualitative methods to determine the degree of consistency in the information. Triangulating data from different methods allows the researcher to be more confident of their results, can lead to richer data, can lead to the integration of theories, and can uncover contradictions (Jick, 1979 cited by Johnson et al., 2007). Furthermore, like Kosnik and Beck (2009b), in the findings chapters I used the literature as another source of data to further validate the findings.

In this study, triangulating data from the different methods helped me better address the research questions. For instance, information obtained from the pre-test survey data was used to
inform and further my understandings of the data that emerged from the interviews with student teachers. Moreover, analysis of the interview data helped me understand in greater detail the reasons for any changes that were evident from comparing the pre- and post-test survey responses. Further discussion of integrating both the quantitative and the qualitative information is provided in the following section.

3.4 Data analysis

According to Creswell (2009), in mixed methods studies “analysis occurs both within the quantitative approach and the qualitative approach, and often between the two approaches” (p. 218). The following sections describe the procedures used to analyze the quantitative information and the qualitative information respectively. Further, the strategies used to integrate results from all sets of analysis are explained.

3.4.1 Quantitative analysis

Survey data was analyzed in four broad stages using SPSS® Version 18.0. Various statistical techniques were utilized to provide broad information about the reliability of the data gathered, student teachers’ experiences, identity, and self-efficacy for teaching HPE. In the first stage of quantitative analysis, I wanted to determine the reliability of the pre- and post-test data that was gathered. Because multiple items were used to infer the constructs of (i) identity for teaching HPE, and (ii) self-efficacy for overcoming barriers to teaching HPE, it was important to determine the extent to which the items inferring the respective constructs were consistent with each other (Punch, 2009). Thus, internal consistency reliability of data from the pre-test survey were analyzed using Cronbach’s $\alpha$. A cutoff of .7 was used as a benchmark for an internally consistent reliable measure (Field, 2005).

Pre-test responses to the four items used as indicators for identity for teaching HPE provided a measure that was internally consistent ($\alpha = .81$). Likewise, the seven items used as indicators for self-efficacy to overcome barriers to teaching HPE provided an internally consistent measure ($\alpha = .80$). I used the same theories and statistical techniques to determine the reliability of data from the post-test survey. As for the pre-test data, responses to the four items used as indicators for identity for teaching HPE in the post-test conditions provided a measure
that was internally consistent ($\alpha = .79$). The seven items used as indicators for self-efficacy to overcome barriers to teaching HPE also provided an internally consistent measure ($\alpha = .88$).

Based on the reliability of the pre-test data, combined scores could be used for the four items measuring identity for teaching HPE and seven items measuring self-efficacy for overcoming barriers to teaching HPE, respectively. Regarding validity, as components of an established survey were used (i.e., Faulkner et al., 2004), it was assumed that content validity for those items would carry over to this sample of elementary student teachers.

In the second stage of quantitative analysis, pre-test survey data was analyzed using descriptive statistics. Frequency scores were analyzed for the variables gender and teaching focus (as represented by the student teachers’ cohort). Responses to items measuring comfort with PE and physical activity, attitude toward HPE as a school student, personal physical activity patterns, identity for teaching HPE, and self-efficacy for overcoming perceived barriers to teaching HPE were analyzed to determine descriptive statistics such as the mean and standard deviation for each response and categories of response. The third stage of quantitative analysis involved the same procedure as in the first stage but applied this to responses on the post-test survey.

In the fourth stage of analysis, pre- and post-test responses were compared with one another in attempt to determine degrees of change in the sample and to explore the existence of statistically significant differences ($p$ values) and effect sizes (Cohen’s $d$ and Pearson’s $r$) (Field, 2005). Inferential statistics such as $t$-tests using repeated measures were used to infer the extent of change in the dependent variables (that is, identity and self-efficacy) between responses in pre- and post-test conditions. Analysis of variance (ANOVA) was used to determine differences in change between groups (e.g., according to gender, teaching focus, and so on).

### 3.4.2 Qualitative analysis

According to Wolcott (1994), the main aims of qualitative research are description, analysis, and interpretation. As such, these aims formed the focus of the qualitative phases in this dissertation and drove the bulk of the entire research process. With the exception of the recent work done by Morgan and his colleagues, most research that has explored factors related to classroom teachers and HPE has tended to appear as isolated studies and few have addressed the Canadian context. As such, there is no theory upon which to base further investigations. When there is little prior research upon which to base a study, Kosnik et al. (2009) suggest that other
analytic strategies may need to be employed, such as those articulated in grounded theory (e.g., Glaser & Strauss, 1967; Charmaz, 2006; Corbin & Strauss, 2007). It should be noted that while elements of a grounded theory approach to analyzing interview data were applied in this study, these were not strictly followed according to protocols suggested by, for example, Glaser and Strauss (1967). Instead, in adopting a pragmatist approach to the entire research project, the interview analysis was approached as bricolage. Kvale (2007) states: “Many analyses of interviews are conducted without following any specific analytic method. The researchers may then freely change between different techniques and approaches. Bricolage refers to mixed technical discourses where the interpreter moves freely between different analytic techniques” (p. 115). Thus, while grounded theory analytic techniques comprised the primary form of analysis, I did not adhere strictly to its protocols. This allowed me to move freely between data and theory.

3.4.2.1 Grounded theory

Punch (2009) describes grounded theory as a method, an approach, a strategy for research, and a way of analyzing data. Rather than approaching the research with an established framework and set of hypotheses, in grounded theory “the investigator as the primary instrument of data collection and analysis assumes an inductive stance and strives to derive meaning from the data…” Rich description is also important, but is not the primary focus of this type of study” (Merriam, 2009, p. 29). Because an inductive approach is taken, grounded theory can be particularly useful for addressing questions about process, where the objective is to understand details about how something changes over time (Merriam, 2009). This logic provided the rationale for using a modified grounded theory approach to analyze the qualitative data in this research.

The principles of grounded theory have developed since the early work of Glaser and Strauss (1967), with Bryant and Charmaz (2007) claiming that grounded theory methods now seem to have taken on a life of their own. As such, grounded theory represents a “coordinated, systematic but flexible overall research strategy” (Punch, 2009, p. 134). While a grounded theory strategy can be flexible, there are certain elements that are necessarily present. First, data collection is guided by theoretical sampling where the researcher collects, codes, and analyzes data in order to decide what data to collect next, developing theory as it emerges (Glaser & Strauss, 1967). Coding of data at this stage of analysis is considered descriptive (Punch, 2009).
Second, data are analyzed using the constant comparative method of analysis, which involves comparing one segment of data with another to determine similarities and differences (Merriam, 2009). Data are then grouped together, patterns are identified, and categories formed. Punch (2009) suggests that coding at this stage moves beyond description and is considered analytic. The researcher continually analyzes the data in such a way, where themes or patterns are added, deleted, or modified (Kosnik, et al., 2009). Third, substantive theory is built (Merriam, 2009).

3.4.2.2 Interview analysis

A modified approach to grounded theory, such as that described above, can work particularly well when using semi-structured interviews as a data collection method because the flexibility of the grounded theory approach allows the researcher to pursue areas of interest as they arise in the interview process, which can be done by using probe questions (Kosnik et al., 2009). Furthermore, using grounded theory to analyze interview data can be beneficial because: (a) the theory emerges from the data; (b) the researcher keeps looking across the whole data set; (c) the context of the research is considered; and (d) subsequent data gathering (e.g., additional interviews) are informed by the emerging theory (Kosnik et al., 2009). Interviewing in three stages is particularly suited to a grounded theory approach because interview questions can be guided by theoretical developments that emerge from analyses of previous data; this continues until “theoretical saturation” is achieved (Punch, 2009).

At each stage of the interview process, interviews with student teachers were analyzed separately using descriptive codes that represented aspects of each student teachers’ HPE experiences. Following coding of each participant’s interview, the codes were then compared across participants, using the principles of constant comparison. Specifically, materials were read and re-read for clarification, and commonalities between the responses of participants were looked for. When commonalities were found, they were used to generate, modify, and eventually establish themes that emerged from the data. Following descriptive coding and analysis, coding became analytic (Punch, 2009), where the aim of the analysis involved developing the meanings of the interviews, bringing the subjects’ experiences and understandings to light, and providing new perspectives from the researcher’s point of view (Kvale, 2007). Once I had completed analytic coding, I took what I felt were important, informative, and revealing quotes from each participant and compiled an interim “research text” or narrative (Clandinin & Connelly, 1998).
that reflected the story of each participant in each of the three interviews. Once their narratives had been compiled, I read each again thoroughly and identified the themes that were strongly represented by quotes from participants and my subsequent interpretation. In this process, I compiled “chunks” of thematic information that formed the foundations for my reporting of data analysis in Chapters Four to Six. This process occurred in each of the three interview stages of the research. The following table provides a summary of the analytic process for each of the three interviews.

Table 3.5: Stages of Interview Analysis

<table>
<thead>
<tr>
<th>Form of data/text analyzed</th>
<th>Type of analysis used</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio recording of interview</td>
<td>N/A</td>
<td>Transcripts of interview data</td>
</tr>
<tr>
<td>Individual interview transcripts</td>
<td>Descriptive coding (Within-case)</td>
<td>Preliminary themes</td>
</tr>
<tr>
<td>Individual interview transcripts</td>
<td>Descriptive coding (Cross-case)</td>
<td>Refining and consolidating preliminary themes</td>
</tr>
<tr>
<td>Quotes representing emerging themes</td>
<td>Analytic coding (Within-case)</td>
<td>*Individual narratives</td>
</tr>
<tr>
<td>Individual narratives</td>
<td>Analytic coding (Cross-case)</td>
<td>*Refining and consolidating themes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Consolidation of themes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*Selection of quotes that best represented selected themes</td>
</tr>
</tbody>
</table>

3.4.2.3 Trustworthiness and credibility

In qualitative research, validity does not carry the same connotations as it does in quantitative research (Creswell, 2009). Instead, terms such as trustworthiness, authenticity, and credibility are often used to suggest whether the findings are accurate from the standpoints of the researcher and/or the participants (Denzin & Lincoln, 2003). Ways to check the accuracy, trustworthiness, or credibility of qualitative findings include triangulating different data sources, as explained above; using member-checking; and clarifying the bias the research brings to the
I also applied three criteria suggested by Mulholland and Wallace (2003) to guide how I attempted to obtain trustworthiness and credibility in the qualitative analysis:

- **Strength:** requiring research to be conducted in ways that provide evidence of thoroughness and fairness;
- **Sharing:** allowing the reader to experience vicariously the world of the participant(s), and;
- **Service:** concerning the ways in which education is enhanced for the researcher(s), participants, and readers.

While I do not have tangible evidence of the obtainment of these criteria, the guidelines were used as a framework and I kept referring to them throughout the analysis and reporting stages of the dissertation.

### 3.4.2.3.1 Member checks

In member checking, or member validation (Kvale, 2007), the researcher checks with those people who are being studied (Punch, 2009). For instance, the researcher may take the transcriptions of interview data back to the participants to determine whether there are comments that the participant would like modified or deleted. In this study, member checks were made with student teachers to ensure that transcriptions of the interview data accurately represented the thoughts, feelings, and perspectives of the interviewees. Changes and modifications were made to the data when interviewees wanted their comments modified or altered.

### 3.4.2.3.2 Researcher bias

A central feature of the paradigm debates concerned the value-laden nature of research (Guba, 1990). Thus, it is important to acknowledge several biases that I brought to the study. I was employed as an HPE teacher educator during the time that the project was being conducted. This may have affected how I framed the interviews, how student teachers responded to my questions during the interviews, and also how I interpreted the data that were gathered. However, these may also be considered as positive aspects because I had unique insights into the HPE program being studied. Being employed as a teacher educator also meant that I held certain
opinions about the strengths and weaknesses of the HPE teacher education program being studied. These opinions may have influenced the development of interview items and survey items, and their subsequent analysis and interpretation.

3.5 Ethical considerations

The project was subjected to ethical review, which was approved by the University of Toronto Research Ethics Board in June, 2009 and renewed in June, 2010 (Ref: 24200). Participants were asked to sign and submit a letter of informed consent, where issues related to confidentiality and anonymity were outlined. To protect participants’ identities and information, pseudonyms are used throughout the study to refer to individuals, cohorts from the teacher education program, and institutions. Participation in the study was voluntary and participants were free to withdraw at any time and without penalty.

3.6 Chapter summary

In this chapter the methods of the research have been presented. A rationale to taking a pragmatist approach was explained, where qualitative and quantitative methods are seen as compatible and are able to provide partial worldviews. In essence, a mixed methods approach to data collection and analysis was taken. Chronologically the primary means of gathering data were a pre-test survey of 308 student teachers, three interviews with ten student teachers, and a post-test survey of 285 student teachers. Data from a survey developed by Faulkner et al. (2004) were analyzed in four stages to determine reliability of the data gathered, and subsequently using descriptive and inferential statistics to provide broad inferences about student teachers’ HPE experiences, identity, and self-efficacy, and any changes that occurred in these attributes throughout the teacher education program. Qualitative data from interviews were analyzed using a modified grounded theory approach, with particular attention paid to the analytic principles of constant comparison. My role as an HPE teacher educator was identified as both a potential source of bias and as a strength, as the trustworthiness of interpretations of the qualitative data was a primary concern of the study.
Chapter 4
Analysis of Prior Experiences

I don’t want to be a gym teacher, just as I do not want to be a math teacher… It was a horrendous experience for me. When I think of gym class, I cannot think of anything even remotely positive.

Joey (22/9/2009)

Introduction
As discussed in Chapters One and Two, this dissertation that focuses on learning to teach health and physical education (HPE) is framed by an assumption that student teachers come to teacher education programs with a vast array of prior experiences gained inside and outside of school. Social constructivist theories of learning suggest that these experiences inform how student teachers learn about, view, and approach their future roles as practicing teachers. In some cases negative prior experiences, such as those reflected in Joey’s statement above, can lead to student teachers not wanting to assume parts of the role that they may be required to fulfill in their early years as beginning teachers, impeding the processes of learning to teach. Alternatively, positive prior experiences can lead student teachers to believe that “good” teaching simply requires them to teach in ways that they were taught as pupils. Teacher educators are therefore faced with challenging circumstances if they are to have student teachers critique their prior experiences in order to create meaningful learning situations for pupils in the future.

In this chapter I partially address the first research question: What are the HPE and physical activity experiences of elementary student teachers prior to and during a pre-service teacher education program? Specifically, I explore aspects of elementary student teachers’ HPE biographies that were comprised of their experiences prior to entering the teacher education program at Windermere University. The chapter is organized in three main sections. In the first section I analyze quantitative and qualitative data to provide a descriptive profile of how student teachers view and engage in a healthy lifestyle, with a focus on physical activity. This includes analysis of their participation in and comfort with physical activity, and their beliefs about leading a healthy lifestyle. In the second and third sections I use Richardson’s (1996) categories
of experience (see section 2.2.1 for further explanation) as a heuristic device to organize themes that emerged from the qualitative data. Specifically, in the second section I discuss student teachers’ personal experiences regarding HPE and physical activity. In the third section I have chosen to combine Richardson’s (1996) categories of “experiences with schooling and instruction” and “experiences with formal knowledge” under one single heading of school experiences; this section analyzes participants’ school experiences of HPE curriculum and teachers of HPE, respectively. It should be stated at this point that there is a degree of overlap in the categories of experience, and as such, several examples that I have included from the data could be interpreted by the reader as being just as relevant in one section as the other. The selection and organization of the examples therefore reflects my interpretation of the data and the categories of experience.

Information about student teachers’ prior experiences was gathered using a survey with 308 student teachers and interviews with a purposive sample of ten student teachers. These methods of data collection took place in Sept. 2009, before student teachers attended the mandatory 12-hour HPE course at Windermere University. Quantitative data were analyzed using descriptive statistics, such as frequency scores, mean, and standard deviation, and inferential statistics such as t-tests and one-way ANOVA. The qualitative analysis is driven by the main tasks of describing, analyzing, and interpreting the data (Wolcott, 1994). Because I used a grounded theory approach, data was not restricted to that collected in the field; I also used the literature as a data source to illuminate participant’s experiences (Kosnik & Beck, 2009b; Punch, 2009).

4.1 A descriptive profile of student teachers’ participation and beliefs about healthy living and HPE

While I am of the opinion that a healthy lifestyle should be viewed holistically (encompassing elements such as physical activity, nutrition, social relationships, mental or emotional health, and so on), in this chapter I have focused attention on participants’ views about, and prior experiences with, physical activity. There are two main reasons for this. First, HPE and physical activity were the foci of the main method of quantitative data collection I used (Faulkner et al., 2004) and to keep the psychometric integrity of the survey, minimal alterations were made to the wording of survey items. Second, although the wording of my interview
questions was intentional in asking about “a healthy lifestyle”, most participants’ responses focused solely on physical activity. In this sense the focus on physical activity is the result of inductive analysis of the interview data, with participants’ responses guiding the analysis rather than any a priori assumptions that I had about the nature of the data.

4.1.1 Current physical activity participation

At the beginning of the 2009-2010 academic year, the student teachers that comprised the survey sample (n = 308) were asked to provide information regarding their current patterns of physical activity. Table 4.1 reports the frequency scores for statements that best described participants’ self-reported current pattern of physical activity. In the survey I used the criteria for “regular physical activity” as outlined by Faulkner et al. (2004), where it was clearly stated that regular physical activity is considered to be moderate to vigorous and lasts for at least 30 minutes on most days of the week.

Table 4.1: Personal Stage of Physical Activity

<table>
<thead>
<tr>
<th></th>
<th>Sept. Frequency: f (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Not physically active with no intention to start</td>
<td>2 (.6)</td>
</tr>
<tr>
<td>(b) Not physically active but thinking about starting</td>
<td>16 (5.2)</td>
</tr>
<tr>
<td>(c) Physically active in the past but not now</td>
<td>43 (14.0)</td>
</tr>
<tr>
<td>(d) Physically active but it is irregular</td>
<td>89 (28.9)</td>
</tr>
<tr>
<td>(e) Physically active but started in the last 6 months</td>
<td>20 (6.5)</td>
</tr>
<tr>
<td>(f) Physically active now and have been for more than 6 months</td>
<td>138 (44.8)</td>
</tr>
<tr>
<td>Totals</td>
<td>308 (100.0)</td>
</tr>
</tbody>
</table>

The frequency scores indicate that at the time the survey was conducted most of the student teachers were physically active to some degree. Specifically, 61 respondents (19.8%) selected items (a), (b), or (c), which indicated that they were not physically active at the time the
survey was conducted. At the opposite end of the spectrum, 247 survey respondents (80.2%) selected one of items (d), (e), or (f), which represented irregular physical activity, physically active for less than 6 months, or physically active for more than 6 months, respectively. Furthermore, the frequency of responses to items (e) and (f) suggest that just over half of the total sample was regularly physically active in the 6-month period before the survey was conducted ($f' = 158$, 51.3%). I did not analyze these data according to gender and/or cohort due to the skewed nature of the sample.

Interview data offered insight into the types of physical activities in which student teachers participated. Although this data represented only those student teachers who comprised the purposive sample of interview participants, there was a wide variety of activities and most were performed individually and in a non-organized or informal environment; for example, walking (Anastasia, Campbell), running (Andrew, Joey), cycling (Julia, Jane), and going to the gym (Hailey, Campbell, Joey, Natasha). Some student teachers participated in organized non-competitive activities, such as yoga (Julia), dancing (Julia, Ralph, Skylar), or fitness classes (Andrew, Natasha). Jane was the only participant who reported participating in an organized competitive activity at the time of the interviews; she played ultimate Frisbee occasionally.

4.1.2 Beliefs about leading a healthy lifestyle

To better understand student teachers’ patterns of healthy living, interview participants were asked about the benefits of living a healthy lifestyle and the extent to which their current lifestyle reflected one that is “healthy”. As explained in section 4.1 of this chapter, responses focused to a large extent on physical dimensions of health, although several participants spoke about ways that physical activity could be used as a vehicle to achieve other healthy outcomes, such as those that impacted upon social or emotional health. For example, Hailey’s response was directed primarily toward the physical benefits of being active; benefits that could be felt or seen. She said:

You know, I don’t want to be overweight. I want to feel like I have the strength and the endurance and the energy to do things on a daily basis without running out of breath. I don’t want to worry about my health, about getting sick, getting diabetes, or heart problems, or whatever. (23/9/09)
Factors related to family emerged strongly in Hailey’s interview. She highlighted how important it was not only for her to be healthy but also to impart what she had learned to her young son. Hailey also spoke of her parents’ reduced physical health, represented by low levels of physical activity and poor diet, as a major influence on her beliefs about healthy living.

Ralph discussed social health through being physically active, particularly the relationships that can be fostered in a physically active environment. While he did refer to some physical benefits of being active in his response (losing weight), he considered these to be secondary to the social benefits. Ralph spoke of his participation in salsa dancing:

The social aspect is a huge part of it… Certainly partner work, dancing with a partner is always the best part in my opinion. But you can expand, particularly in salsa dancing, to networking with a whole community… Mainly the social and the networking parts are the big aspects for me… Of course, I don’t mind losing a few pounds in the process. (5/10/09)

Alternatively, Campbell’s and Julia’s reasons for being physically active were directed toward the emotional benefits, such as improved mood. Julia spoke of the changes in mood she felt from being active. In her childhood and youth she was an elite ballet dancer – a highly demanding physical activity with which negative body image and weight issues are often associated (Levine & Piran, 2004). Throughout her involvement in ballet she claimed to struggle with her weight, which, in turn, led to other problems in her life. Julia spoke of “re-discovering” physical activity in early adulthood and the change that caused in her overall lifestyle at that time. Subsequently, physical activity continues to positively impact upon her current lifestyle. In particular, Julia highlighted some profound effects on her emotional health:

Personally, I’m very physical. Most of my activity is cycling, yoga, and dance. I’ve never been involved in any sports or competitive activity… These days I know my mood is better if I can get out and be moving. Emotionally I feel better when I’m physical. I had a really rough time in my late teens and early twenties and I think that was the period I wasn’t physical at all… I was gaining weight, I was very unhappy and quite miserable until I bought a bike and I started riding everywhere to commute. It really changed my life, actually, at that time; just
being physical every day… I lost a lot of weight (probably 30 to 40 pounds in a year riding my bike), so I was happier all round… more energy. Oh, and then I quit smoking and I met my husband and everything sort of turned around. My whole life was a lot better. I had been very depressed and then it just sort of switched. Everything got much, much better. (5/10/09)

As shown in the above statements, student teachers’ beliefs about leading a healthy lifestyle are varied and complex; as are the ways in which student teachers engage in, and their reasons for engaging in, healthy behaviours. They are drawn from a wide spectrum of experiences gained inside and outside of schools. While the quotes above refer to being free from illness, establishing social relationships, and improving mood as reasons for leading a healthy lifestyle, eight of the ten interview participants noted that keeping a certain body size or shape was one of, if not the, primary reasons for leading a healthy lifestyle. Joey’s response was the most forthright in this respect:

Before I came here [to Windermere University] I was working out five days a week. I do cardio for at least 30 minutes, which I hate. In the last four months I have been trying to add muscle work in there; not because I want to build muscle but in hopes that [exercising] muscles will burn more calories and I can get to a place where I feel comfortable with my body. (22/9/09)

While Joey’s physical activity levels meet those recommended by several institutions that inform public health policy (e.g., Canadian Society for Exercise Physiology, 2011; Haskell et al., 2007), his reason for being physically active is based exclusively on burning calories in order to achieve a smaller body size and more slender shape. Joey does not enjoy being active – he claims to “hate” doing the endurance exercises he feels are necessary in order to lose weight. Upon seeing Joey, one would not say that he is a “large” individual. He is of average height and there is little evidence of excess body fat on his slender frame. His statement suggests that despite leading a very physically active lifestyle, other aspects of Joey’s health may require greater attention, such as those that are related to body image. This is a common issue for both men and women where strong relationships have been established between body size/shape and self-esteem (Grogan, 2008; Wright, O’Flynn & Macdonald, 2006). In this case, being physically healthy (if this is
informed by being in a “healthy” weight range as perhaps indicated by Body Mass Index calculations) does not give a complete picture of an individual’s overall health.

Narrow beliefs about health and what constitutes being healthy pose a particular challenge for HPE teacher educators. Messages in the popular media suggest that childhood obesity is at the level of an epidemic and that schools play a major role in this issue (Picard, 2007). Indeed, in the recent Handbook of Physical Education, O’Sullivan (2006) asserted that HPE in schools plays a dual role in the obesity discourse because it contributes to both fostering and inhibiting opportunities for learning about and through physical activity. Yet, some scholars, such as Gard and Wright (2005) and Rich and Evans (2005), suggest that messages about childhood obesity and the role of HPE in this issue are flawed and perpetuate the idea that being slender is the prime concern when it comes to being or becoming healthy and teaching about health. Teachers of HPE who do not enjoy being active and/or who equate being healthy to being slender hold visions about HPE that may be deemed inappropriate for the classroom, yet, as many authors have suggested, overcoming student teachers’ prior beliefs is one of the most challenging tasks for those involved in teacher education (Darling-Hammond, 2006a; Kennedy, 1999; Korthagen et al., 2006; Lortie, 1975; Loughran, 2006; Sugrue, 1996; Wideen et al., 1998; Zeichner & Gore, 1990). Therefore, teacher educators need to provide learning experiences that: emphasize the importance of considering other dimensions of health (such as social and mental/emotional health); critique media messages, and; challenge student teachers’ own beliefs about being physically active and healthy.

4.1.3 Comfort with physical activity and HPE

The broad range of beliefs about health and leading a physically active lifestyle suggest that there were varying degrees of experience and comfort with physical activity. In the survey, student teachers responded to the statement: “How comfortable are you with physical activity and/or HPE?” The item was scored on a five-point Likert scale from 0 (Not at all) to 4 (A great deal). On average, in September the student teachers were somewhat comfortable with physical activity and/or HPE \( M = 2.88, SD = 1.05 \).

Again, interview data allowed this question to be explored further in order to understand reasons why student teachers felt the level of comfort that they did with physical activity and/or HPE. For example, Andrew’s case highlights some nuances in his own levels of comfort with physical activity. He values the benefits of leading a healthy lifestyle and maintains a light
schedule of physical activity in his weekly routine that might consist of swimming, running, or fitness “boot camps”. While Andrew enjoys fitness and conditioning activities, like several other interview participants he is less comfortable participating in sports. He said: “I don’t play sports because I don’t feel that I’m good at sports, and I feel a little bit… even embarrassed to be on the field and just to not be any good.” (23/9/09)

Other cases such as Hailey and Ralph were similar to Andrew. Hailey went to the gym several times a week, mainly running on the treadmill, using an elliptical machine, and engaging in some resistance exercises, while Ralph attended salsa dancing classes weekly. Yet, both claimed that they did not enjoy participating in organized sports due to their perception that an extensive repertoire of skills and knowledge of rules was involved in order to participate at (what they deemed to be) a satisfactory level.

Exploring differing levels of comfort with physical activity highlighted several assumptions that student teachers possessed about the role of teachers of HPE. Based on their experiences as school pupils, the main assumption student teachers had about teaching is that in order to teach HPE effectively, not only is an extensive knowledge of sports rules, skills, and strategies required but also a certain level of competence to carry out or enact these rules, skills, and strategies. As such, student teachers’ views about what teachers of HPE should know and be able to do were limited to a fairly narrow conception of HPE that centred upon team sports. Kirk (2010) has pointed out that the view of physical-education-as-sport-techniques has been the dominant discourse in HPE for so long “that it is, indeed, the way of thinking about physical education” (p. 41). Further, this narrow vision of HPE does not give sufficient credit to their experiences in other physical activities (such as yoga, dance, or personal fitness) and the knowledge, skills, and attitudes they have learned from participating in those activities.

Jane’s case is particularly interesting in this respect and highlights the discrepancy between comfort with certain forms of physical activity and discomfort with others. Jane was an elite level junior figure skater and completed an undergraduate degree in kinesiology. In that degree she took courses that included anatomy and physiology, exercise psychology, biomechanics, outdoor education, and several physical activity courses. She also completed a post-graduate qualification in holistic medicine and practiced in that role for several years. In many instances it would make sense for someone with Jane’s experiences and qualifications to choose HPE as their subject specialization for teaching in the J/I grades – something she
acknowledged. However, Jane chose science as her specialist subject because of her lack of confidence in matters of sport, particularly the skills involved in each sport. She said:

I question my own abilities in some of the sports. That’s why it’s interesting; I went for the science teachable rather than HPE. I actually have more HPE credits than in science but I was a little cautious of my coaching ability. I’ve never coached really; I’ve taken on leadership roles in teams but I’ve never run drills. I’m sure it would be easy enough to look up but it’s also a confidence in the actual skill-set… If you don’t have some level of skill – and if it is a gym class where you’re literally going through the different units of sports – I don’t feel confident in my skills as a basketball player to teach basketball at all. Soccer, sure, volleyball I could figure out. But some sports: badminton, tennis, lacrosse, or hockey… it’s laughable. And I’m a good athlete! (28/9/09)

As well as having academic and professional experience in areas related to health and physical activity that provide her with solid knowledge of the body and movement, Jane is a physically active individual who has an embodied identity as an “athletic” individual who views herself as a good athlete. Yet, she claims to lack the comfort and confidence to teach HPE well. Like several other student teachers interviewed, Jane’s prior experiences have led her to view an HPE program as consisting mainly of sports; what she believes is required of an HPE teacher is therefore based on a limited notion of the scope of HPE programming. Jane’s strong background in physical activity and her identification as a good athlete provides perspective when considering the comfort/discomfort, fears, and anxieties that many student teachers who have dissimilar experiences or backgrounds to Jane.

4.1.3.1 Confidence to teach HPE

Survey data allowed aspects of student teachers’ comfort and confidence teaching HPE to be explored in a broad perspective. Specifically, Faulkner et al. (2004) developed the Self-efficacy to overcome limiting factors to teaching HPE sub-scale. In this scale, student teachers \( n = 308 \) were asked to identify the extent to which they felt confident in overcoming seven common “limiting factors” to teaching HPE as identified in the literature. The seven items used

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12 Embodied identity is discussed in greater depth in section 4.2.1.2 of this chapter.
as indicators for self-efficacy to overcome limiting factors to teaching HPE provided an internally consistent measure ($\alpha = .80$), meaning combined scores could be used. Items were scored on a 5-point scale from 0 (very unconfident) to 4 (very confident).

*Table 4.2: Self-efficacy for Overcoming Limiting Factors to Teaching HPE*

<table>
<thead>
<tr>
<th>Limiting Factors</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall self-efficacy for overcoming limiting factors to teaching HPE</td>
<td>2.80 (.76)</td>
</tr>
<tr>
<td>(a) Lack of space</td>
<td>2.87 (.98)</td>
</tr>
<tr>
<td>(b) Lack of resources/equipment</td>
<td>2.87 (1.03)</td>
</tr>
<tr>
<td>(c) Lack of time due to other curriculum needs</td>
<td>2.47 (1.07)</td>
</tr>
<tr>
<td>(d) Bad weather</td>
<td>3.00 (1.11)</td>
</tr>
<tr>
<td>(e) Lack of interest from other teachers</td>
<td>2.71 (1.05)</td>
</tr>
<tr>
<td>(f) Lack of confidence</td>
<td>2.99 (1.10)</td>
</tr>
<tr>
<td>(g) Lack of training</td>
<td>2.91 (1.15)</td>
</tr>
</tbody>
</table>

As shown in Table 4.2, elementary student teachers felt somewhat confident that they were able to overcome common limiting factors to teaching HPE prior to entering the pre-service teacher education program ($M = 2.80$, $SD = .76$). However, upon closer inspection it is evident that there are variations in the extent to which student teachers felt confident to overcome specific limiting factors. For example, they felt most confident that they could overcome item (d): bad weather ($M = 3.00$, $SD = 1.11$), closely followed by item (f): overcoming a lack of confidence for teaching HPE ($M = 2.99$, $SD = 1.10$). Alternatively, student teachers felt most unconfident that they could overcome item (c): the lack of time to fit HPE into their teaching schedule due to other curriculum needs ($M = 2.47$, $SD = 1.07$). Elsewhere, elementary classroom teachers have reported that they find it especially challenging to find the time to fit HPE into their instructional schedules due to other curricular priorities (DeCorby et al., 2005; Faulkner et
al., 2004; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b). Therefore, student teachers in this sample in some ways “foresaw” one of the primary limiting factors to teaching HPE as identified in the literature.

Further analysis presented in Tables 4.3 and 4.4 shows the differences between gender and teaching focus (that is, P/J and J/I) in self-efficacy for overcoming the limiting factors to teaching HPE.

**Table 4.3: Self-efficacy for Overcoming Limiting Factors to Teaching HPE: Gender Effects**

<table>
<thead>
<tr>
<th>Gender</th>
<th>N Student Teachers</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>228</td>
<td>2.75 (.73)</td>
</tr>
<tr>
<td>Male</td>
<td>53</td>
<td>2.73 (.93)</td>
</tr>
</tbody>
</table>

Before explaining the analysis, it should be noted that 29 student teachers submitted responses that were incomplete for the subscale; therefore, only 279 out of 308 respondents’ scores could be included in the ensuing analysis. As shown in Table 4.3, the mean self-efficacy for overcoming limiting factors for teaching HPE was slightly higher for female student teachers ($M = 2.75, SD = .73$) than for male student teachers ($M = 2.73, SD = .93$). However, independent t-tests revealed that this difference was not statistically significant: $t(279) = .16, p > .05$. This finding stands in contrast to those reported by other researchers such as Faulkner et al. (2004), who found that male student teachers were significantly more confident than female student teachers in overcoming limiting factors to teaching HPE.

**Table 4.4: Self-efficacy for Overcoming Limiting Factors to Teaching HPE: Teaching Focus**

<table>
<thead>
<tr>
<th>Teaching Focus</th>
<th>N Student Teachers</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/J</td>
<td>185</td>
<td>2.66 (.83)</td>
</tr>
<tr>
<td>J/I</td>
<td>96</td>
<td>2.91 (.62)</td>
</tr>
</tbody>
</table>
In Table 4.4 it is evident that there was a difference in mean scores for self-efficacy for overcoming limiting factors for teaching HPE according to teaching focus. Student teachers in the J/I cohort ($M = 2.91, SD = .62$) showed more confidence in overcoming limiting factors to teaching HPE prior to entering the teacher education program than student teachers in the P/J cohort ($M = 2.66, SD = .83$). Independent sample $t$-tests revealed that this difference was statistically significant: $t(246.12) = 2.88, p < .01$, and represented a small effect size $r = .11$. A plausible reason for the significant difference between the P/J and J/I cohorts may be that student teachers in the J/I group choose subject specializations. As such, it is likely that the responses of survey participants who chose to specialize in HPE returned higher self-efficacy scores because they had completed an undergraduate degree in kinesiology. Therefore, they may have felt more confident to overcome limiting factors prior to entering the teacher education because it is likely that they would have completed several courses related to HPE or physical activity pedagogy in their undergraduate degrees. However, due to lack of data these suspicions cannot be supported.

### 4.1.4 Summary of descriptive profile

According to survey results, the majority of elementary student teachers at Windermere University were physically active at the beginning of the teacher education program. Interviews with ten student teachers revealed that they participated in a wide variety of physical activities that were predominantly informal and non-competitive in nature. Student teachers’ beliefs about health and leading a healthy lifestyle were also varied but a focus was directed toward the physical aspects of health, such as being physically active and maintaining a certain body size/shape. This was reflected in participants’ tendency to engage in physical activity to achieve a certain body size/shape (often a smaller size/shape) – an issue that has implications for how health is conceptualized and how HPE is taught in teacher education programs and in schools.

Student teachers tended to be somewhat comfortable with HPE and/or physical activity, however, interview data suggested that their levels of comfort were nuanced; for example, they were more likely to feel comfortable with physical activities such as personal fitness (e.g., resistance and endurance exercises), yoga, or dance and less likely to feel comfortable with organized sports. Moreover, student teachers were somewhat confident that they could overcome several limiting factors to teaching HPE, and there was a statistically significant difference in the
confidence levels of P/J and J/I student teachers, with those choosing the J/I teaching focus reporting higher confidence levels.

Based on the theoretical premise that prior experiences shape and influence learning to teach (Lortie, 1975), student teachers’ physical activity patterns, their beliefs about leading a healthy lifestyle, and their comfort with physical activity can strongly influence their views and approaches to teaching subject matter in HPE (Garrett & Wrench, 2007). In the following section I further analyze data that relates to participants’ prior experiences with physical activity and HPE, gained from inside and outside of schools. The focus in the following section is directed toward personal experiences; those experiences that have shaped student teachers’ views and behaviours concerning healthy living.

4.2 Personal experiences

Richardson (1996) identifies personal experiences as including “aspects of life that go into the formation of world view; intellectual and various dispositions; beliefs about self in relation to others; understandings of the relationship of schooling to society; and other forms of personal, familial, and cultural understandings” (p. 105). Other influential aspects of personal experience may include but are not limited to: ethnic and socioeconomic background, gender, sexuality, geographic location, religious upbringing, and life decisions. Many of these aspects of personal experience with health, physical activity, and HPE that student teachers recounted in this research have gone toward shaping their identity as healthy, physical individuals. Identity is a concept that emerged strongly through inductive analysis of the interview data and in the following sub-sections I use Jenkins’s (2008) identity framework to illustrate how participants’ embodied identities shape their views of physically active people and teachers of HPE.

Examples of personal experiences that contributed to identity development are drawn primarily from formal and informal health and physical activity contexts; for example, youth sport programs or individual leisure pursuits. In some cases, I have included in this section personal experiences that stem from participants’ lives in schools. My reason for including several school-based experiences in this section is because I have interpreted them as shaping their beliefs about themselves and their “beliefs about self in relation to others” (Richardson, 1996, p. 105); for example beliefs about body image and perceived competence. I felt it was important to consider these experiences in this section because they do not fall under the
category of “school experiences” as conceptualized by Richardson (1996). Further, it has been shown elsewhere that personal experiences both inside and outside of school influence teachers’ identity development, helping to guide their visions for teaching and understandings of practice (Beattie, 2006; Britzman, 2003; Danielewicz, 2001; Feiman-Nemser, 2008; Garrett, 2004; Garrett & Wrench, 2007).

4.2.1 Shaping an identity as a teacher of HPE

The study of identity provides the basis for thinking about how teachers make decisions and find meaning in their work (Bullough, 1997). In order to develop a positive professional identity teachers need to feel that they embody the qualities of what they perceive as good teaching and feel that other people view them as embodying these qualities. Differing aspects of identity such as gender, (Dillabough, 1999), sexuality (Sparkes, 1994), and religion (Johnson, 2003) have been discussed in research on teachers and their development of a professional identity; however, in this research participants’ physicality, or physical identity, emerged as a strong contributor to their development of a professional identity as teachers of elementary HPE.

In the survey conducted in Sept. 2009 a scale measuring student teachers’ identities as teachers of HPE was included. Results presented in Table 4.5 provide a broad understanding of the extent to which student teachers in the sample (n = 308) viewed themselves as teachers of HPE prior to attending the HPE course at Windermere University. Participants were asked to indicate the extent to which they agreed with four statements that reflected their identity for teaching HPE. The reliability coefficients for pre-test responses indicated internal consistency (α = .81), meaning combined scores could be used for the four items measuring identity for teaching HPE. Items were scored on a 7-point scale, from 0 (strongly disagree) to 6 (strongly agree).

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Richardson’s (1996) categories that related to school experiences were “Experiences with schooling and instruction” and “Experiences with formal knowledge”. These categories do not include, for example, interactions with peers that may have occurred in the context of HPE in school and had profound influence on their recollection of certain experiences. Hence, I have elected to include these and similar experiences in this section.
Table 4.5: Identity for Teaching HPE

<table>
<thead>
<tr>
<th>Construct Item: I think of myself as...</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall identity for teaching HPE</td>
<td>4.28 (1.14)</td>
</tr>
</tbody>
</table>

(a) The sort of person who teaches HPE  
(b) Someone who generally thinks about the health benefits of HPE  
(c) A health conscious person  
(d) A person who thinks about my students’ health  

Overall, student teachers held slightly positive identities for teaching HPE ($M = 4.28$, $SD = 1.14$). That is, the mean score suggested that student teachers were more likely to agree than disagree with statements indicating their identity for teaching HPE. However, when each of the four items that comprise the construct is examined individually, it is clear that there are variations in the way that student teachers thought of their identity for teaching HPE. For example, the extent to which student teachers thought of themselves as teachers of HPE (Item (a): $M = 3.32$, $SD = 1.76$) was scored lower than the other three items. Alternatively, the extent to which student teachers thought of themselves as a person who thinks of their students’ health (Item (d): $M = 4.94$, $SD = 1.11$) was scored higher than the other three items. Further analysis was conducted to determine the existence of statistically significant differences according to gender and teaching focus (that is, P/J and J/I), respectively. These data are presented in tables 4.6 and 4.7.
Table 4.6: Identity for Teaching HPE: Gender Effects

<table>
<thead>
<tr>
<th>Student Teachers (n)</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>248</td>
</tr>
<tr>
<td>Male</td>
<td>60</td>
</tr>
</tbody>
</table>

In considering identities for teaching HPE according to gender, male student teachers ($M = 4.23$, $SD = 1.15$) scored higher than female student teachers ($M = 4.52$, $SD = 1.09$) on the survey items in Sept. 2009. However, independent $t$-tests suggest that the difference was not statistically significant $t (306) = 1.76$, $p > .05$ and represented a small effect size $r = .10$.

Table 4.7: Identity for Teaching HPE: Teaching Focus

<table>
<thead>
<tr>
<th>Student Teachers (n)</th>
<th>Sept. Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary/Junior</td>
<td>205</td>
</tr>
<tr>
<td>Junior/Intermediate</td>
<td>103</td>
</tr>
</tbody>
</table>

When identity for teaching HPE was analyzed according to teaching focus, J/I student teachers ($M = 4.33$, $SD = 1.24$) scored higher than P/J student teachers ($M = 4.26$, $SD = 1.09$). This is perhaps not surprising because the J/I cohort includes a small number of student teachers who had chosen to teach HPE as their specialist subject. As with gender, the difference between the means for P/J and J/I student teachers was not statistically significant $t (306) = .52$, $p > .05$.

While the survey analysis provided broad perspectives on student teachers’ identities for teaching HPE, the interviews yielded data that allowed deeper analysis of the reasons why student teachers viewed themselves as they did. Furthermore, analysis of the interview data was not restricted to the conceptualization of identity put forth by the survey developers (Faulkner et al., 2004) and represented in the survey items (see section 3.3.1.3). Because a grounded theory approach to analysis of interview data was applied, the utility of identity theories emerged as having particular relevance to this research.
From a sociological perspective the study of identity allows individuals to think about “who’s who” and consequently, “what’s what” (Jenkins, 2008). Identity is not a thing but a process of being or becoming and is shaped by interaction between an individual’s embodied view of the self (self-image) and their perception of how others see them (public image). Hence, identity processes are influenced by internal and external points of view. An important part of any process of identification is that of labeling and this can be represented in terms of naming or categorizing and how people “respond to or treat us” (Jenkins, 2008, p. 96). Developing an identity includes labels that indicate what we think we are but also what we think we are not. While a label and its consequences may not coincide (that is, individuals can reject the labels thrust upon them from others, such as teachers or peers), labels become meaningful when those placed upon individuals by others become internalized. This becomes especially important if the labels that individuals come to identify themselves with have consequences for their actions (Jenkins, 2008). Through labeling and other identity formation processes, the interplay between self-image and public image serves to consolidate how identities develop. In this research it became evident that the labels that student teachers gave to themselves and withheld from themselves (Alsup, 2006) and that others gave them or withheld from them influenced their physical activity patterns and behaviours inside and outside of school. In turn, these labels and other identity formation processes have shaped how student teachers view themselves as teachers of HPE.

4.2.1.1 Labels: Athletic or non-athletic?

Examples of labeling were apparent in several of the interviews with student teachers. For example, Ralph and Natasha were clear in claiming that they were “not athletic” individuals and when recalling their experiences as pupils, viewed themselves as stronger in academic activities. Ralph commented that he was in a gifted program in elementary school but pointed out: “I was gifted at math and at spelling and things like that but HPE… no”. (5/10/09) He stated: “There are some times I’ll enjoy a little physical activity but I normally get more fun out of sitting down and working mentally on a problem”. Ralph said of his HPE experience that he would have liked his teachers “to have remembered that not everyone in the class is athletic. I certainly wasn’t”. (5/10/09) Similarly, Natasha said: “I’m a very academic student. I’ve always succeeded in the academic subjects, other than math. But in elementary school especially, I was fine in all of my classes except in gym”. (30/9/09)
When I asked Natasha about her reasons for not identifying as an athletic individual, she acknowledged the influence of her family in how she thought about herself physically and went about leading a healthy lifestyle. In particular, she spoke of the differences between her father’s and her mother’s habits and behaviours when it came to being physically active:

My dad, he was a track coach. So he is like this track and field star (well, used to be but not any more). So for him, being active was always important. But my mum isn’t active at all. He can eat whatever he wants and he looks the same – he’s exactly the same – whereas my mum and I struggle with that, so it’s harder for us. My sister is like him and my brother is kind of in between. (30/9/09)

Natasha identifies more closely with her mother’s experience of healthy living as a “struggle” and even though she excelled at softball and track and field in her adolescent years and maintains a somewhat regular physical activity regimen today, it appears that she still lives in the shadow of her father’s athletic accomplishments and physical identity. From this and other comments it was evident that a driving influence in the development of Natasha’s embodied identity is how she views, labels, and positions herself in comparison with other members of her family. For example, Natasha labeled her father as an athletic “star”, with her sister following in his footsteps. Having elite athletes in her family may have provided a distorted version of what a physically active lifestyle and identity entails.

Like Ralph and Natasha, Andrew, Hailey, Joey, and Julia also viewed themselves as non-athletic individuals but were more specific in their identification because they narrowed their views to claim that they were “not good at sports”. Andrew, Joey, Julia, and Skylar spoke of being picked last on sports teams at school during HPE class or extra-curricular activities. Andrew recalled these experiences with some emotion, stating:

The trauma I had carried since childhood was of someone who was just not good at sports, so that meant that when they were picking teams in elementary school, I was generally the last pick, or you know, people would say things like, when we played baseball, “You throw like a girl”. (23/9/09)
For Andrew, being told by others that he threw “like a girl” (an external point of view) has influenced his view of himself as a physically active and competent individual (internal point of view) and thus, his development of a physical identity. Andrew also felt “that the other guys were just a lot more agile, they were faster, they seemed to have an easier time of it”. (23/9/09)

The internal and external points of view that Jenkins (2008) describes are evident in Andrew’s comments and have led to his earlier claim that he “was someone who was just not good at sports”; a self-image he carried into the teacher education program. Furthermore, he has acknowledged his views about what would contribute to a more positive physical identity by attaching labels that he associates with being good at sports to several of his peers, such as being “agile” and “faster”.

Natasha also spoke of her perception of how others saw her physically in HPE classes and how this influenced her HPE experience:

I couldn’t do it and it was so obvious to everyone when you couldn’t do something. If you fail a [math] test [for example], everyone in your class doesn’t know that you’ve failed that test. But if you go out and you miss the basket and they don’t pass it to you any more because they know you’re not going to get it in, everybody knows that you suck at basketball... If you can’t do it, everyone knows you can’t do it. (30/9/09)

The public nature of participating in HPE was a strong part of Natasha’s HPE experience and her recollection of this exemplifies the external points of view that Jenkins (2008) describes as influencing identity development. Several other student teachers spoke negatively about the public nature of performing or participating in HPE, with Anastasia reporting feeling “exposed” (23/9/09) and Julia not liking “feeling on display” (1/11/09).

In contrast to these experiences and the negative influence they have had on some student teachers’ identity development, Jane and Skylar were two participants who did identify as “athletic” individuals; they discussed their extensive backgrounds and experiences with physical activity to justify these claims. For example, as described in section 4.1.3, Jane has an extensive background in physical activity and was comfortable participating in many activities. When I asked about what she liked most about being physically active as a youth, Jane spoke about her
experiences as an elite figure skater and high school soccer player and highlighted the performance aspects of participation:

I think the performances. It was a huge thrill on the ice – not necessarily the practices – but when you competed, that was the biggest thrill for me. And often times, you know the other teams are out there and there’s not really a chance in hell that we’re going to get a medal this competition, but just going out there and giving it your all. You know, your back up straight, and that tingle in your stomach, you’re so excited to go – that would keep me coming back and loving that… And you can relate it to soccer. Like why did I like playing soccer? I liked when it came down to the end of the game, quite often it would come to shoot outs and I wasn’t the best soccer player. I didn’t start playing till Grade 9… and I was kind out of it and I really had to learn. I was not on the team for the first few years in high school because I wasn’t good enough. But come later years when I was one of the ones chosen to be in the shoot out – again, that thrill, you know…you just get into it. Probably that’s what I like about it the best, what kept me going. (28/9/09)

Jane’s confidence in her physical abilities enabled her to feel comfortable demonstrating these abilities in public spaces; something many other participants claimed they could not relate. Yet, despite feeling comfortable with the thrill of participating in these activities, Jane does not feel comfortable about her abilities to teach similar activities to pupils in HPE. (28/9/09)

Analysis of the interview data made it clear that student teachers’ experiences and the labels they associated with positive or negative physical identities were strongly related to perceptions of their bodies and the bodies of their peers. Moreover, the labels that student teachers associated with in regard to physical activity were strongly informed by their perceptions of how others viewed them. In particular, physical identities were informed by perceptions of how bodies looked and moved – from internal and external points of view. Body image was identified as both an influence upon and being influenced by physical activity participation.
4.2.1.2 The body in identity development

It has been claimed that in postmodern times HPE is concerned with shaping bodies in both biological and social senses (Kirk, 1998). Taking this perspective, Armour (1999) argues that HPE is central to pupils’ notions of embodiment and, in turn, embodiment is central to any individual’s notions of identity. Shilling (2003) provides the following description of embodiment:

Our experience of life is inevitably mediated through our bodies… [O]ur very ability to intervene in social life – to make a difference to the flow of daily affairs – is dependent on the management of our bodies through time and space. To put it another way, we have bodies and we act with our bodies. Our daily experiences of living – be they derived from learning in schools, travelling to a place of employment, working in an office, buying and preparing food for a meal, or making love with a partner – are inextricably bound up with experiencing and managing our own and other people’s bodies. (p. 20)

While it is not my intention to engage extensively with the current and substantial literature on the body and social theory, the social construction of bodies, or embodiment in HPE (c.f. Evans, Davies & Wright, 2004; Fernandez-Balboa, 1997; Gard & Wright, 2005; Kirk, 1998; Kirk & Tinning, 1994; Rich, 2010; Rich & Evans, 2005; Shilling, 2003), it became evident from analyzing interview data that the ways in which student teachers experienced, viewed, positioned, and identified themselves in the context of HPE was to a large extent influenced by their embodied identity in two ways: the ways their bodies looked and the ways their bodies moved.

4.2.1.3 Body image: Looks and movement

Both male and female participants spoke about their embodied identity and how it influenced, or was influenced by, their experiences of physical activity and/or HPE. In support of Jenkins’s (2008) theory of identity development, the images participants held about their bodies were influenced by both internal and external points of view. The nature of and influence upon body image concerns was varied in participants’ responses and stemmed from multiple sources.
For Joey and Julia, cultures of which they were members outside of school were primary influences on how they viewed their bodies. For example, Joey cited being a member of the gay community as a major influence on his reasons for wanting to achieve a certain body shape/size and his beliefs about healthy living. When asked about his reasons for being physically active, Joey stated:

It’s body related. It’s what I want to look like; what I feel very pressured to look like. I think that because I am gay, I am in a culture that demands of its members that we look a certain way and that certain way is to be very physically fit and to be almost model-perfect… If you walk in any kind of gay village, you see that most people are beautiful people. Especially at this age, there’s an extreme pressure to look perfect. I’m lucky to have some really great friends but all of them are beautiful people who are extremely physically active (Interviewer: So it’s more of an image thing than perhaps a health perspective?) Absolutely. I could care less about the health part to tell you the truth. (22/9/09)

As explained in section 4.1.2 of this chapter, Joey maintains a physically active lifestyle that meets recommendations from public health authorities; however, his claim that he could “care less about the health part” of being physically active suggests he is not concerned with the benefits toward, for example, his cardiovascular system or emotional well-being. His comments suggest that he engages in physical activity purely in pursuit of a certain body shape/size that he (and, according to Joey, other members of the gay community) equates with being beautiful. Thus, Joey claims that in order to maintain an embodied identity as a gay male he must feel accepted by other members of his community that necessitates his maintenance of a “look” of healthiness – a view that acknowledges only the physical aspect of health.

Even though Joey is physically active, he claims that he struggles to maintain this part of his lifestyle. He outlined the impact that negative prior experiences of physical activity and HPE have on his reasons for being physically active at present:

I think they have a huge impact on… even my view now. I force myself to get out there. I don’t enjoy it. It’s not fun for me. I spent time with people who really enjoyed their physical activities and what they were doing and I just don’t. I just
don’t like it. And I think that’s very connected to the fact that I had negative experiences growing up in physical activities. (22/9/09)

Joey’s experiences of physical activity and his reasons for being physically active not only influence his identity today but may also have implications for how he approaches teaching HPE. For example, one may wonder as I did after this initial interview: To what extent will Joey’s beliefs about being healthy and physically active change as a result of the HPE teacher education program? Will he carry his current beliefs into the classroom when and if he teaches HPE? How will pupils interpret his messages about health? These and other questions are explored in the following findings chapters.

While much of Joey’s body image concerns were related to experiences outside of HPE, for Anastasia and Julia the HPE experience was a particularly hard time for them and how they dealt with their body image. HPE is conducted in unique settings in the school – primarily a gymnasium or a playing field – where all class members can see what each other is doing at any given time in the class. In the previous sub-section Natasha spoke about the public nature of performing certain skills in HPE (such as shooting a basketball) but some participants felt that their bodies were always on display in HPE. For example, both Anastasia and Julia spoke with resentment about several fitness tests that they experienced, a component of which involved assessment of pupils’ body weight and fat measurements. This was often conducted in front of other pupils in the class causing a significant amount of distress to those on the scales or being pinched by calipers. As Julia stated: “Because I had such a complex about my weight already from the dance world my body fat measurement was very revealing and humiliating”. (1/11/09)

Most schools also require pupils to wear a uniform during HPE that typically consists of a t-shirt, shorts, and running shoes. Part of the rationale for requiring a uniform may be to provide students with greater freedom of movement or to promote hygiene by allowing students to change into other clothing afterward. However, the HPE uniform itself led to several student teachers having unsettling experiences. Anastasia spoke about how the uniform she was required to wear inhibited rather than enabled her movement. She said:

We had to wear shorts all the time and t-shirts and stuff that some of us felt really uncomfortable in. So it was really hard to play something or to be expected to play something when you’re so conscious of your body. (23/9/09)
Anastasia’s comment indicates that for some pupils, wearing HPE uniforms acted as barriers to participation. While the uniforms may have allowed greater freedom of movement for some, the feeling of their bodies being revealed negated any freedom that may have been intended. Other participants spoke with particular emotion about their experience in changing into that clothing in the gymnasium change rooms and how this led to even greater exposure of their bodies. O’Donovan and Kirk (2007) described the change rooms as acting as a “gateway to physical education lessons” (p. 399), which requires pupils to negotiate interactions between peers, teachers, and bodies. Andrew spoke of his experience in the change rooms in elementary school and highlighted one specific interaction with peers:

I was a little bit overweight in elementary school so I felt self-conscious being in the change room and having to pull up my shirt and then there would be rolls in view. And kids used to even call me fatso on occasion, so that was a little bit… I didn’t like that. (23/9/09)

Similarly, Anastasia commented on her experience of the dynamics and interactions in the change rooms and the discomfort that caused throughout her HPE experiences:

They would make us shower together [but] I never did that. A lot of girls felt really uncomfortable. A lot of us really hung back just because we either felt so self-conscious about being so exposed… I had this friend and she didn’t shave her legs and the other girls started to make fun of her for it. That was really uncomfortable and you always feared it would happen to you. (23/9/09)

Student teachers had to deal with or overcome feelings of exposure, humiliation, or self-consciousness during their HPE experiences – experiences that took place in the gymnasium, on the playing field, or in the change rooms. Several participants used labels such as “overweight” (Joey, Julia) and “fat” (Anastasia, Andrew, Natasha) to describe aspects of their embodied identities that were influenced by both internal and external points of view. While these aspects of their body image concerned how bodies looked, some participants also saw a relationship existing between how their bodies looked (in terms of size/shape) and how they moved. For example, when recalling her HPE experience in high school, Natasha claimed: “That was hard
because I felt like I was fat and all these skinny girls could play these games and I couldn’t. They could do these gymnastics routines and I couldn’t”. (30/9/09) Natasha views her body size/shape as inhibiting how she moved and, as a result, her participation in HPE. Several participants also referred to ways that their bodies moved as influencing their body image. For example, Andrew described his internal points of view regarding his athletic abilities; specifically sports-related skills:

When it comes to practicing sports skills, I just don’t feel confident. I would love to learn how to throw a ball properly. But last time I tried I just kept getting the movement wrong, the ball wouldn’t go very far, I could tell that I was throwing it all wrong. But I just… for some reason couldn’t coordinate it correctly. (23/9/09)

Like Andrew, Skylar also identified sports-related skills as inhibiting her HPE experience and shaping her identity. Skylar’s narrative is particularly interesting because in most contexts she self-identifies as an “athletic” person; however, this was not the case during her HPE experience due to the type and nature of the activities. In particular, she highlighted how her experience of Canadian HPE classes was dominated by team sports and that this narrow focus impeded her participation and brought forth feelings of self-consciousness:

I wasn’t very good in HPE because I moved to Canada in Grade 7 and before that I was at school in Moscow. So half of the sports we didn’t really play – we did mostly conditioning. I don’t remember if we really played team sports [in Moscow] so a lot of sports I didn’t know how to play [when I came to Canada]. And I’m pretty athletic by nature and I’ve done competitive sports but in school I sucked. I was the kid that people didn’t want on their team. (25/9/09)

Despite being athletic and, most likely, a “physically literate” individual14 (Mandigo, Francis, Lodewyk & Lopez, 2009; Whitehead, 2001; 2010), Skylar’s participation in HPE was limited by the way she moved in activities (specifically, sports) that were valued in Canadian HPE

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14 Mandigo et al. (2009) define a physically literate person as someone who moves with competence, confidence, and creativity in a wide variety of physical activities, and consistently develops the motivation and ability to understand, communicate, apply, and analyze different forms of movement.
programs. Although Julia did not have to overcome the same cultural barriers that Skylar faced, she also spoke of not possessing certain movement skills and how this impacted upon her HPE experience:

I don’t think I had very strong wrists so I wasn’t any good at throwing. I never did any of that kind of stuff with my family – never, ever played ball. So I didn’t know how to throw or catch a ball… I just felt really silly and awkward and I basically felt humiliated a lot of the time… We had to do chin-ups and I couldn’t do one. We were supposed to climb a rope and I couldn’t do it – I had no upper body strength. I was a typical ballerina; I had strong legs but I couldn’t do anything with my upper body so I sort of failed miserably on that. (1/11/09)

In a similar manner to Skylar, Julia’s extensive dance background suggests that she possesses some of the qualities of a physically literate person, yet she felt she was unable to transfer the movement skills necessary to be successful in HPE programs that were sports-focused.

From this analysis, it is clear that the ways in which student teachers experienced, viewed, and positioned themselves in the contexts of physical activity and HPE was influenced to a large extent influenced by the ways their bodies looked and moved. In turn, these experiences have gone toward shaping student teachers’ sense of physicality and their embodied identities. While embodied identities in HPE are not limited to labels such as “athletic”, “non-athletic”, “skinny”, or “overweight”, student teachers used these labels often to identify themselves and others physically and to provide a brief description of their perception of their own bodies.

4.2.2 Summary of personal experiences

Data from the interviews analyzed in this section suggests that student teachers’ personal experiences (as described by Richardson, 1996) have influenced their perceptions of health and healthy living and how they engage with these concepts. Furthermore, student teachers’ personal experiences with health, physical activity, and HPE have gone toward shaping their identity as healthy, physical individuals.

The ways in which student teachers’ perceived their bodily appearance and movement were informed by internal and external points of view. External points of view were provided
from peers and teachers in the contexts of school-based HPE and physical activity opportunities outside of school. The points of view were made explicitly in some cases (such as having labels attached in the gymnasium or change rooms) and implicitly in others; they were implicit in the sense that some student teachers perceived that others felt certain ways about their bodies. In some cases, the physical identities that were being shaped during HPE class did not evolve beyond that time.

In the following section I consider the school experiences of student teachers, with specific reference to experiences in HPE. Using Richardson’s (1996) categories of experience as a heuristic to organize the following section, these are experiences that are related to HPE curriculum and HPE instruction, respectively.

4.3 School experiences

Teachers bring with them a wide variety of socializing experiences that shape how they think about and carry out their professional roles. As discussed in Chapter Two (see section 2.2.1.2), the 12 or more years of schooling that Lortie (1975) described as the apprenticeship of observation, has a substantial impact on what student teachers view as being important qualities and capacities for their future professional roles. However, if not challenged, these experiences and the subsequent beliefs that develop can be limiting, providing student teachers with a short-sighted view of teaching. Furthermore, because it is likely that teachers will view the ways that they were taught as appropriate, the apprenticeship of observation remains one of the more difficult challenges to address, let alone overcome, in pre-service teacher education (Bullock, 2011; Darling-Hammond, 2006a; Kennedy, 1999; Korthagen et al., 2006; Lawson, 1983; Lortie, 1975; Loughran, 2006; Schempp, 1989; Sugrue, 1996; Templin & Schempp, 1989; Wideen et al., 1998; Zeichner & Gore, 1990). To this end, Beattie (2006) suggests that student teachers’ experiences of school – and the beliefs about schooling that are derived from these experiences – should be brought to the surface and critically examined in social constructivist pre-service teacher education programs. As such, in this section and the following sub-sections I explore and analyze student teachers’ experiences of HPE in school.

Survey data were analyzed to provide a broad understanding of student teachers’ HPE experiences as school pupils. The following statement was provided to survey respondents (n = 308): “As a pupil in elementary and high school, to what extent did you enjoy HPE?” The item
was scored on a five-point Likert scale from 0 (Not at all) to 4 (A great deal). This sample of student teachers revealed that, on average, they somewhat enjoyed HPE during elementary and high school ($M = 2.64$, $SD = 1.34$). While not overly favourable regarding their enjoyment of HPE, this finding contrasts with those of several authors who suggest that elementary student teachers tend to think of their HPE experiences as school pupils negatively (DeCorby et al. 2005; Dwyer et al. 2008; Faulkner et al., 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b; Xiang et al., 2002). To explore this matter in greater depth, in the following subsections I analyze interview data to understand the nature of student teachers’ HPE experiences as school pupils and to examine the factors that contributed to their level of enjoyment (or non-enjoyment) of HPE. Specifically, I address student teachers’ experiences of the HPE curriculum and HPE instruction, respectively. As outlined earlier, there may be several examples used from the data that may seem as appropriate in one section as in the other.

4.3.1 Experiences of HPE curriculum

Due to its dynamic nature, curriculum is a contested term and applying one definition can limit the way it is conceptualized. While I recognize this challenge, for the purposes of organizing this, and future chapters (in particular, Chapters Five and Six) I have chosen to use a definition of curriculum proposed by Marsh and Willis (2003), who view curriculum as “an interrelated set of plans and experiences that a student undertakes under the guidance of the school” (p. 13). Among the major objectives of many Canadian HPE curricula is to provide students with the knowledge, skills, and attitudes necessary for leading a healthy lifestyle (Alberta Education, 2000; Government of Newfoundland & Labrador Department of Education, n.d.; Nova Scotia Department of Education, n.d.; Ontario Ministry of Education, 2010; Saskatchewan Education, 1995). It therefore falls upon teachers of HPE to make choices about what subject matter to include and what not to include, to select the ways the subject matter will be taught to pupils, and to assess pupils’ learning of the requisite curriculum outcomes. In this section I analyze student teachers’ prior experiences of the HPE curriculum, including experiences of the structure of HPE programs and the activities that were and were not included in these programs. Two themes emerged from the data that highlight the experiences of student teachers in relation to the HPE curriculum. Specifically, these themes were: (i) The value of HPE and (ii) HPE = Sport.
4.3.1.1 The value of HPE: Why are we doing this?

Based on their experiences, I asked participants about their perceptions regarding the value of HPE in schools and what they felt they learned in HPE when they were pupils. Few participants cited specific incidents of learning; rather, most comments referred to learning of a general nature. For instance, Hailey said: “I learned that it is important to be physically active and why it’s important to be physically active”. (23/9/09) While citing learning about, for example, the rules for several sports (as Joey claimed), many participants saw HPE in a manner similar to participants in research by Morgan and Bourke (2008); as a time when they could “blow-off steam” or expend energy rather than as an opportunity to learn about their bodies, movement, or interactions and/or relationships. For example, Natasha said: “It felt like a break in the day; it didn’t feel like it was hard, it was just something I didn’t really like”. (30/9/09) Ralph also saw little value in HPE, mainly because his teachers did not explain the potential value of the subject to him. He also lamented the lack of structure of the elementary HPE program at the school he attended:

I never really knew what we were being taught… I don’t even know if there was an HPE curriculum that was official at the time… Maybe my memory is a little bit selective but I don’t think it was done very systematically… In Grade 5, for example, there was no formal physical activity. There was a gym we could go to, but they mixed it with art and things like that as well… I remember assemblies about health education, about foods and things like that as well… I remember assemblies about health education, about foods and things like that but working more systematically is what I think could have been done most there… I found in high school it was effort that mattered – as long as you did your best – but in elementary school I found that it was simple and not terribly informative physically. (5/10/09)

When there was some systematic curriculum or structure in HPE, Ralph felt it was fairly narrow in its focus on team sports; something I refer to in greater depth in the following sub-section (4.3.1.2). I asked Ralph what could have improved his HPE experience and he felt that his teachers could have done more to make clear the reasons for doing the activities they were being asked to. Natasha echoed Ralph’s sentiments citing the major issues for HPE program improvement in her mind are relevance and integration: relevance of the subject matter to her life
and her own views of health and healthy living, and integration of health concepts when participating in physical activities:

Having more relevance probably would have been good. Just so that it didn’t feel like we were just doing it for fun; so that we felt like it was for a reason and that it had something to do with the rest of our lives… so not separating health and PE but putting them together. So if we’re learning about the heart in health, then also trying to incorporate that into PE… I think an ideal gym program would be relevant and really meshed together. It wouldn’t just be gym: “Today we’re doing gym, tomorrow we’re doing health, the next day basketball”. Trying to put them together would probably be good. (30/9/09)

From Natasha’s comment it is evident that, upon reflection, she notices opportunities for learning in HPE (one example she uses is about heart health) but in her experience these opportunities for learning were missed or not made explicit by her teachers. In particular, she felt that if health concepts were included in physical activity lessons that the activities in the curriculum may have felt more relevant to her and allowed her to make HPE meaningful to her daily life. Campbell described a similar experience where the purpose of the activities she participated in was not made clear to her. She used the example of fitness testing to illuminate this problem in her HPE experience. Advocates of including fitness testing in the HPE curriculum suggest that it can provide indicators of fitness and other aspects of physical health (Silverman, Keating & Phillips, 2008). However, Campbell recalled from her experience some negative aspects of fitness testing:

I hated those. I hated those so much. One, they were really difficult and they got increasingly difficult. Two, I don’t like running. At a point it starts to become painful. And when you know that four laps is a “C”, and five laps is this much; it’s stressful to do it but you have to. So those two specifically, I hated. (Interviewer: Do you recall being told why you were doing those activities?) No. No. I don’t know, you just assumed it was something you had to. You knew you were getting a mark for it, so you assumed the teacher needed a mark… So I kind of had the idea that was a kind of assessment, but nobody ever explained what it was for or why you were doing it. (Interviewer: So it was a letter for your report
card rather than an assessment of your cardiovascular health?) Right. I don’t think the teachers even cared, to be honest. It wasn’t like: “Oh, good job, you’ve improved”, it was more: “Thanks. Next.” (28/9/09)

It was not only the content of fitness testing that Campbell disliked but also that the activity seemed to be an arbitrary inclusion in the curriculum. She feels that it was included purely so that her teacher had something upon which to assign an evaluative grade. When assessment and evaluation are viewed in such a way, there is little focus upon assessment of and for learning. Pupils could have been asked to think about, for example, their perceived limits of physical endurance and provided an opportunity to learn about their bodies. Also, formal knowledge could have been developed pursuing inquiry of what is going in one’s body during an activity; for example, the demands that are placed on the cardiovascular system. It was these aspects of HPE where Campbell thinks an improvement could be made in HPE programming: “You know, when you’re jumping rope, this is what you’re doing. This is what’s going on inside your body. Feel your heart beat.” (28/9/09) According to Silverman et al. (2008), fitness testing needs to have its focus as an assessment of student learning and of a teacher’s fitness instruction; otherwise, conducting fitness tests becomes mere testing and nothing more.

Natasha also described the assessment and evaluation process in her experience of fitness testing, highlighting similar concerns to Campbell. To add to this, Natasha felt that the evaluation system was based on students’ natural abilities rather than on aspects of learning and/or improvement. Further, like participants in a study by Wrench and Garrett (2008), Natasha’s experience of fitness testing highlighted it as a time when bodies were judged in a public domain:

I hated fitness testing in Grade 9 because I felt that it wasn’t fair. Some kids are just naturally talented and gifted at certain things, and I wasn’t one of those kids. I felt like your natural talent shouldn’t translate into marks, I guess. I didn’t want to be evaluated on the fact that I couldn’t stretch far enough. They said that it was based on improvement but I didn’t really believe that I don’t think. Some kids are just automatically going to be better than others. The arm-hang thing; I sucked at that. I remember they started the timer and I let go two seconds later… In Grade 9 we also had to jog a certain amount and that sucked too because you were
evaluated based on the time that you got back. So if you got back in ten minutes you got an “A”, if you got back in twelve minutes you got a “B”; that’s how they did it. (30/9/09)

The experiences of Campbell and Natasha support previous research that reveals several negative impacts of fitness testing, such as its contribution to a lack of enjoyment in HPE and the way that it can undermine pupils’ self-esteem in physical activity contexts (Corbin, 2002). Perhaps if pupils were taught about what they could learn about themselves during fitness testing, such as what is going on in their bodies when they exercise or the limits of their physical capabilities, then they may have been able to see more value in fitness testing. This same rationale could be applied to other areas of the HPE curriculum; teachers of HPE need to make clear to pupils the reasons for the activities they are doing to enable pupils to make connections to their daily lives.

When Julia recalled the activities she participated in as a pupil she cited dodge-ball as an activity that seemed to occupy the bulk of her HPE experience. She contrasted her experience as a school pupil with her observational experience as a classroom volunteer prior to entering the teacher education program. In particular, Julia highlighted an interest in learning more about the reasons for doing HPE that she felt had evolved since her time as pupil:

I understand from a little bit of observation that I did at one school earlier in the year, that there is a whole new philosophy – I don’t know whether it’s new or not – but there’s an approach to teaching HPE that involves intellectual and social skills that I wasn’t aware of when I was a student. I think it will be interesting to be teaching strategies; interesting to teach beyond dodge-ball. (1/11/09)

Teaching “beyond dodge-ball” suggests that for Julia, her experience of HPE curriculum as a school pupil was limited to a small number of activities and these activities were of a certain type. Several student teachers’ discussed at length that their HPE experience was focused largely on competitive sports. Indeed, for most of the student teachers interviewed in this research, their experiences of HPE could well have been re-labelled “experiences of sport”.
Along with recollections of fitness testing, most of the activities that student teachers recalled participating in were competitive, team sports. Similar findings have been widely reported in the literature and examined thoroughly, considering, for example, the value of sports-based program models for lifelong physical activity habits (Bailey, 2006; Ennis, 1999; Fairclough, Stratton & Baldwin, 2002), the role of competition in HPE (Singleton, 2006), and issues related to gender equity (Flintoff & Scraton, 2001; Gibbons & Humbert, 2008; Vertinsky, 1992). This is not to suggest that sport should not occupy a key role in the HPE curriculum but rather that it should not necessarily be perceived as the only role. Nor is it to suggest that sports cannot be a worthwhile and meaningful part of the curriculum; I believe that if they are taught well, using for example, constructivist approaches such as sport education (Siedentop, Hastie & van der Mars, 2004) or teaching games for understanding (TGfU) (Bunker & Thorpe, 1982; Kirk & MacPhail, 2002), sports can be a valuable part of a child’s education. However, based on student teachers’ experiences described here, sport-focused HPE curricula seemed to be dominant in most cases and taught in a traditional, skill-drill-modified game format.

In the previous section (4.3.1.1), Ralph suggested that his elementary HPE experience seemed loosely organized, yet he hinted that when there were elements of organization there was a clear priority when it came to the types of activities that were included in the HPE program. He stated: “When there was structure it was so much around team sports. Certainly I don’t mind some social aspects but to focus so much on football or on games like that... I didn’t like that”. (5/10/09) Similarly, when asked about the activities that they recalled participating in during a typical year of HPE as school pupils, Campbell, Hailey, Joey, Natasha, and Ralph all listed sports. For example, Campbell said: “A lot of games with rules and sports. Sometimes it would be up to the kids and sometimes it would be up to the teachers. But I can remember a lot of hockey, dodge-ball, scooter hockey, wiffle-ball”. (28/9/09) These types of activities that typified participants’ HPE experiences focused largely on games where there was a winner and a loser, such as competitive sports or elimination games.

While the activities in and of themselves are not necessarily problematic, it was the ways in which the activities were taught, or perhaps more appropriately, not taught in some cases that caused several student teachers to look back upon their experiences negatively. For example, Natasha recalled receiving little help from her teachers when she was having difficulties with
certain skills, an issue that has been highlighted as being particularly problematic in HPE lessons that focus on sports. For instance, Tinning (2010) asserted:

Most sports classes do not spend much time on instruction in sports skills. Typically they move quickly into the game-playing situation. The sports class is not primarily about doing pedagogical work on/for sports skills per se – it is usually assumed that pedagogical work will accrue or follow from participation in competitive sports. (pp. 28-29)

When individuals like Natasha do not receive teaching that enables them to feel successful in participating in HPE lessons, it is easy to see how they lose interest in the subject and feel disengaged in future lessons. Again, Tinning (2010) outlined some implications for pupils with experiences like Natasha who are placed in sporting situations in the HPE lesson before they feel ready to participate with any degree of success:

In [the] contexts [of school sports sessions or lessons], for many students the pedagogical work might be that which the teacher or coach anticipates (i.e., the improvement in game skill and play). But there might be other pedagogical work done for those students who, when placed prematurely in game situations, learn to become competent bystanders and avoid the action for fear of failure or injury. (p. 30)

Anastasia and Julia were student teachers who did avoid the action of her HPE lessons for fear of injury. Both were placed in situations where their fear of injury led them to avoid participating.

Since several student teachers equated HPE with a focus on sports, many judged their own knowledge, attitudes, and skills for HPE as being inadequate. For example, based on her experiences of HPE, Hailey tends to view the purpose of HPE as teaching sports skills rather than perhaps developing a lifelong commitment to being or becoming healthy or about recognizing how to transfer skills or concepts from one activity to another. Her perspectives on the purpose of HPE as sport influence her perceived competence and confidence to teach HPE prior to attending the HPE teacher education course: “...as far as the actual skills go, like basketball, and all the lay-ups, you know all those different things where you have to have some
kind of skill, I’m a little worried about it, because I’m not very good”. (23/9/09) Joey and Natasha expressed similar concerns regarding their perceptions of the types of knowledge and skills that would be required to teach HPE. Joey stated:

I think that part of being a good teacher is to have a strong background knowledge in what you’re teaching and I don’t feel that I’m well educated in all aspects of HPE. I’m better equipped at what I would call, and unfortunately, what I think society labels as a fluffier type of health education. That being more dance-related, movement-related activities as well as things like peer pressure that are more mental work, as opposed to skill at basketball, soccer, dodge-ball, what have you. (22/9/09)

Despite teaching many movement classes prior to coming to Windermere, Joey indicates that he doesn’t feel he has strong subject matter knowledge for teaching HPE. Based on his experiences, he believed that the activities required of an HPE curriculum are based on team sports. Yet, in most HPE curricula dance and movement education are suggested as important activities that can help pupils develop skills and knowledge that can lead to a healthy lifestyle. Certainly, these activities are not all that is required to develop these qualities, yet as several HPE researchers suggest, student teachers (whether HPE specialists or classroom teachers) should begin teaching topics or activities with which they feel comfortable (Hellison, 2003; Siedentop et al., 2004). Unlike many of their own HPE teachers, student teachers revealed here that teaching sports tended to be an area that they were less likely to feel comfortable teaching.

Like many beginning teachers who feel that the qualities necessary for “good” teaching are those that they observed during their own school years (Korthagen, 2004; Lortie, 1975), participants in this research felt that they would be required to teach HPE in a similar way to how they were taught. Student teachers felt that they would be required to have knowledge of activities in the HPE curriculum that resembled those they recalled from their own experiences; experiences that mainly involved sports. Combining their personal experiences and experiences of HPE curriculum led many student teachers to feel that they did not possess what they believed was necessary to teach HPE effectively. Like student teachers studied by Garrett and Wrench (2007) and Morgan and Bourke (2008), participants felt that those individuals who participated in physical activities outside of school and held embodied identities closely linked to the image
of a “sporty” person reaped the most benefits in school HPE and were more likely to be successful at teaching HPE. The images that student teachers held of teachers of HPE were often based on their own experiences and interactions they recalled with teachers when they were pupils. In the following section I describe and interpret participants’ experiences of HPE instruction.

4.3.2 Experiences of HPE instruction

Most student teachers’ experiences of HPE instruction reflected thoughts and views about their HPE teachers and the ways that these teachers taught HPE. Reflections tended to address personal (such as appearance and personality), interpersonal (such as relationships), and professional (such as teaching styles and pedagogies) characteristics of their HPE teachers. A main focus was directed toward the ways in which HPE teachers related to each pupil. From interview analysis, it emerged that an influential factor in these relationships was the extent to which teachers’ embodied identities (as viewed by student teachers) “meshed” with pupils’ identities. For example, Natasha said of her HPE teachers:

They were nice but they were also very athletic. So, I kind of felt like, that if I went to them and said “I can’t do this”, they would say “Well, that’s ridiculous. Of course you can do it. Everyone can do it, so just go and do it”. I feel like because they were athletic they loved gym and because I don’t love gym and I’m not athletic, I feel like I can’t really relate to them at all. (30/9/09)

As shown in Natasha’s comment, the labels that she gave to her HPE teachers’ (athletes) did not coincide with her own (non-athlete); further, this discrepancy resembled the tension she recalled about her relationship with her father in section 4.2.1.1 of this chapter. Andrew described a similar tension in the relationships he had with his HPE teachers:

In general I felt misunderstood by the HPE teachers because my strength was never sports. And I always felt that what they saw, especially in guys, is their sports ability. And I always felt like if I didn’t have the sports ability they couldn’t really appreciate who I might be as an individual or what other things I might have to offer. It was always just very much focused on sports or physical
things…I think for a period I even believed that (and I realize now that this is ridiculous), I even have this impression of HPE teachers as being somehow more ignorant that other teachers or being, I don’t know… maybe not as kind as other teachers. (23/9/09)

The disconnect in the embodied identities that student teachers assigned to their HPE teachers and to themselves meant that several student teachers felt misunderstood in the gymnasium. The primary reason for this is that they perceived that their teachers could not comprehend the difficulties that they might be having: with the content of HPE class, such as with sports skills or concepts, or with feeling generally uncomfortable in the gymnasium due to their body image. Anastasia found that such misunderstandings often had quite profound consequences for her HPE experience:

I would do everything I could to avoid the ball, which got me into trouble a lot of the time because the HPE teachers, they thought I was goofing off or they thought I didn’t want to participate, that I was being lazy. They didn’t really understand the phobia I developed around balls. (23/9/09)

Anastasia felt that if her teachers had tried to get to know her better that it may have impacted upon her engagement in the class, perhaps by offering alternative activities or modifying the way certain activities were taught. Natasha pointed out that she felt her teachers did little to help her learn in HPE, particularly when she had difficulty with certain aspects of HPE:

I never felt like they were trying harder with me, or trying to make me feel like I could do it. I didn’t feel like they would come to me and say “Oh, I see you’re having trouble with dribbling, let me show you a different way of doing it. Maybe you should try doing this, or practice this”. I don’t really remember that. I just remember a lot of: “Natasha, stop being lazy” or “Natasha, you only did four push-ups. Let’s go, there’s only eight minutes left”. I don’t really remember any really working with kids who couldn’t do it and trying to get them to be able to do it. It just felt like they wanted to get through the class. (30/9/09)
Natasha points out that had her teachers done a better job of teaching, that she may have learned something that would have added to her HPE experience and influenced her current physical activity habits. Ralph also described a similar experience where his teacher adopted more of a role of drill-sergeant than HPE teacher and this negative image has remained with him long after the incident and still taints his image of HPE in schools.

It is not only the mismatch between embodied identities focused on physical traits or attitudes that led to student teachers not seeing themselves as teachers of HPE. Tinning (2004) has stated that teachers of HPE have often been viewed as culturally insensitive (for example, elitist, sexist, racist, or homophobic), and these are views that were partially reflected in a vignette by Jane:

I think probably in the Grade 9/10 classes there was this teacher… and [she] was the strictest teacher I’ve ever had in my life… Up to that point I used to [think of] HPE being the greatest subject ever… She killed the life out of HPE. Everyone hated her. It wasn’t just that she was so strict and mean and made us run; she was culturally insensitive. One instance, there was an exchange student from Somalia and she was Muslim. This teacher had no idea, culturally. She was basically fasting, hadn’t been eating for weeks except at night, and [the teacher] made her run the 1500 metres. The girl passed out, she didn’t want to not try; and she wanted to be with the group. She was so weak, she fell right on her face, scraped the whole side of her face on the track. We knew she shouldn’t have been running… [There was] another teacher who really favoured boys, and boys particularly who played football… He would sit there and chat with the boys about last night’s football game or hockey game and he would make the girls get up and set up the pylons for whatever drill we were going to do; it was blatant… It was out of control and it was every class. (28/9/09)

The preceding analysis is not attempting to frame HPE teachers as being poor at their jobs or poor role models; there are very many excellent HPE teachers who promote varied and balanced programs and incorporate progressive and inclusive pedagogical approaches to their practice. However, few such practitioners were recalled by student teachers participating in this research. To highlight this point, even the two participants with backgrounds in HPE or related
fields (specifically, Jane and Skylar who have undergraduate degrees in kinesiology) did not recall HPE teachers who they saw as role models for their future practice. If student teachers are likely to think that what they experienced as pupils is appropriate teaching practice, then student teachers in this research have much to overcome in one year of pre-service teacher education.

4.3.3 Summary of school experiences

Survey data suggested that student teachers ($n = 308$) somewhat enjoyed HPE as pupils in elementary and high school. However, interview data ($n = 10$) allowed deeper insight to be gained regarding the nature of their experiences during these years. Many student teachers did not view their HPE experiences as valuable opportunities to learn about their bodies, movement, their emotions, or relationships, for example. Instead, many participants saw HPE as a time when they could “blow-off steam” before returning to the regular rhythms of other classes, such as mathematics or science. This view partially stemmed from the opinion that there was often little structure in HPE programs, and for many student teachers, the activities they participated in offered little in terms of meaning or relevance to their lives. Several student teachers referred to fitness testing to describe the seemingly arbitrary nature of activity selection in some HPE programs. For example, Campbell and Natasha felt that fitness testing was included in the HPE curriculum so that their teachers had some measure on which to evaluate pupils; however, rather than being an indicator of pupil learning, student teachers felt they were evaluated on natural abilities and did not view the tasks as opportunities to learn about their bodies.

When student teachers thought about the content of their HPE programs, most recalled that there was a fairly limited scope in the activities in which they participated, with a focus very much given to sports, primarily team sports. Several student teachers did not mind this focus, however, for others (such as Anastasia and Natasha) it served to alienate them from the HPE class. Furthermore, the narrow focus on sports in several student teachers HPE experiences led them to discount the value of their experiences in other physical activities for HPE teaching, such as dance and/or movement education. Thus, the apprenticeship of observation provided student teachers in this research with the notion that to teach HPE effectively, a thorough knowledge and high level of competence in sports was required.

When recalling HPE instruction, student teachers’ responses primarily addressed aspects of their teachers’ embodied identities. This had important consequences for elementary student teachers because for several who were interviewed, there was a distinct disconnect between their
own embodied identities and those of their teachers. The disconnect in identity led several student teachers to feel that their HPE teachers misunderstood them as pupils, attributing difficulties with physical tasks to laziness or lack of motivation. Furthermore, certain negative practices, such as cultural insensitivities served to widen the gap between student teachers’ identities and the identities they associated with some of their HPE teachers. In this sense, many student teachers could not see themselves as teachers of HPE prior to the pre-service teacher education program.

4.4 Chapter summary

In taking a social constructivist approach to this dissertation research, an assumption is made that prior experiences have profound influences on learning. As such, this chapter sought to address and analyze student teachers’ prior experiences of health, physical activity, and HPE and consider the ways in which these experiences have shaped their thinking about learning to teach HPE.

Elementary student teachers in the pre-service teacher education program at Windermere University reported a wide variety of experiences in health and physical activity settings. Most student teachers reported being physically active in the six months prior to beginning the program and participated in various activities in both formal and informal settings. Beliefs about health and leading a healthy lifestyle focused primarily on the physical aspects of health with an emphasis on being physically active to maintain or achieve a certain body size/shape. This was somewhat unexpected, particularly given the emphasis placed on this purpose for being healthy by several participants. How student teachers reconcile such purposes for being healthy with the purposes of the current Ontario HPE curriculum is an issue explored in the following chapter.

Richardson’s (1996) categories of experiences provided a useful framework for exploring in depth the nature of student teachers’ experiences of HPE and physical activity. Of the categories used here (personal experiences and school experiences), personal experiences had a profound impact on student teachers’ embodied identities as physically active individuals. In particular, it was found that the ways in which student teachers perceived and labeled how their bodies looked and moved were informed by internal and external points of view in the contexts of school-based HPE and physical activity opportunities outside of school. These identities also
have implications for how student teachers see themselves as potentially being teachers of HPE in the future.

In recalling their school experiences in the context of HPE, student teachers’ experiences of HPE curriculum appeared to have significantly influenced their views about what is required of teachers of HPE in elementary schools. Based on their experiences and the embodied identities that they are developing, many student teachers did not see themselves as teachers of HPE when they entered the teacher education program at Windermere. Like many beginning teachers who feel that the qualities necessary for “good” teaching are those that they observed during their own school years (Lortie, 1975), they often felt that they would be required to teach HPE in a similar way to how they was taught. The findings in this chapter acknowledge the influence of student teachers’ HPE teachers in shaping their views about HPE, as well as the influence of the curriculum. Student teachers questioned the value of HPE and some found it difficult to identify meaningful connections between the HPE curriculum and their own lives. In the following chapter I analyze student teachers’ experiences of the pre-service HPE course that they were required to attend at Windermere University. The prior experiences that were analyzed in this chapter provide a solid foundation upon which to frame their experiences during the teacher education program.
Chapter 5
Analysis of HPE Course Experiences

Introduction
As discussed in the review of literature in Chapter Two, it is common for elementary student teachers to come to pre-service teacher education programs with negative prior experiences of health and physical education (HPE) from their time as school pupils. Survey findings revealed in Chapter Four did not lend support to this claim for student teachers at Windermere University; however, several student teachers who participated in interviews about their prior HPE experiences spoke of several aspects of their HPE experiences that they did view negatively. In addition to viewing HPE experiences negatively as school pupils, several researchers have found that many practicing classroom teachers view their pre-service HPE experiences as being inadequate in preparing them to teach quality HPE programs (DeCorby et al., 2005; Faulkner et al., 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b). Among the prime reasons for such views are that pre-service HPE courses tend to be too brief and do not allow student teachers to reflect on and deeply analyze their prior experiences as well as learn the content and pedagogies necessary to teach HPE (Graber et al., 2008).

In this chapter I analyze and discuss (in both broad and specific senses) student teachers’ experiences of the mandatory 12-hour pre-service HPE course at Windermere University. Data is primarily drawn from the second of three interviews that were conducted between January and March, 2010 when each of the participants had completed the HPE course. I also include analysis of brief interviews conducted with three HPE teacher educators. In my analysis I partially address the first three research questions, which are: What are the HPE and physical activity experiences of elementary student teachers prior to and during a pre-service teacher education program?; How do elementary student teachers experience the HPE component of a pre-service teacher education program? and What are elementary student teachers’ views about HPE and teaching HPE, and how does a pre-service teacher education program affect them?

In a similar manner to that outlined in the introduction to Chapter Four, I use Richardson’s (1996) categories of experience to organize findings from the qualitative analysis. As such, the chapter is organized in three main sections. In the first section, I provide a descriptive profile of the pre-service HPE teacher education course at Windermere University,
including a general overview of the course syllabi and activities. In the second section, I analyze student teachers’ personal experiences during the HPE course. This includes experiences concerning student teachers’ embodied identities, as well as their beliefs and views about learning and teaching in HPE. In the third section I analyze student teachers’ school experiences (Richardson, 1996), which includes experiences of curriculum and instruction. Because student teachers’ experiences analyzed in this chapter did not occur in schools per se, I have chosen to use the term course experiences. In the third section I analyze student teachers’ experiences of the HPE course at Windermere University, including their experiences of the HPE course curriculum (as represented by student teachers’ recollections of the HPE teacher educators’ course syllabi and the course activities) and of the HPE teacher educators.

5.1 A descriptive profile of the pre-service HPE course

In Chapter Three (section 3.1.1) I briefly described the requirements that student teachers must meet at Windermere University in order to be certified to teach in elementary schools in Ontario. With specific regard to HPE, all elementary student teachers in the B.Ed. program attend four HPE lessons which last for 3 hours each, for a total of 12 hours. In order to teach HPE to student teachers in the eight elementary cohorts at Windermere, there are four teacher educators who have responsibility for the elementary HPE courses. In the 2009-2010 academic year, Shannon and Trevor taught two of the cohorts, and Olivia and Rebecca each taught one. Two cohorts that did not participate in this study attended classes off campus and were taught by teacher educators not affiliated with the program at Windermere. There is no required curriculum, nor are there requisite learning objectives that the HPE teacher educators were required to address, meaning that each teacher educator was responsible for developing and implementing her or his own HPE course syllabus.

Based on responses from both HPE teacher educators and student teachers, the following two points were apparent regarding the approaches of the HPE teacher educators: (a) Although there was some slight variation in the syllabi, the content of the HPE course was similar from teacher educator to teacher educator and (b) Similarities were noted between the aims or goals of the teacher educators, as each made specific reference to preparing teachers to teach HPE in a way that enabled their pupils to meet the outcomes of the provincial curriculum.
In line with the goals of the provincial elementary HPE curriculum, student teachers participated in activities or experienced scenarios that might be similar to those that elementary school pupils might experience in Ontario. Although the order of the learning experiences or activities and the pedagogies used differed in the teacher educator’s courses, the following experiences were common:

- An introduction to the organization and structure of the provincial HPE curriculum;
- Low organization games, such as tag games or co-operative games;
- Fitness activities, such as a fitness circuit comprising a variety of “stations” involving cardiovascular endurance, muscular strength, flexibility, and coordination elements;
- An introduction to teaching organized games, such as modified versions of sports;
- A health workshop offered by an external provider of health curriculum materials.

Because elementary student teachers could elect to study teaching in the primary/junior (P/J) or junior/intermediate (J/I) grades, teacher educators modified some of the activities listed above to represent developmentally appropriate tasks for the grades being addressed. Further, while elements of content were common amongst the teacher educators, the analysis of student teachers’ experiences presented in the following sections (such as 5.2.1) suggests that there was noticeable variation in some of the emphases demonstrated by the four teacher educators.

In addition to the activities offered during the HPE course, all four teacher educators required student teachers to complete an assignment that involved researching a website that could be used as a resource to develop HPE lessons. In small groups, student teachers were then required to present a review of the site and its effectiveness to their peers.

Based on their experiences of the activities described in this profile, in the following sections and their respective sub-sections, I describe and analyze student teachers’ experiences of the 12-hour pre-service HPE course at Windermere University.

5.2 Personal experiences

In Chapter Four (section 4.2) I used Richardson’s (1996) conceptualization of personal experience as a heuristic device to analyze student teachers’ prior experiences of physical activity, health, and HPE. The ensuing analysis led me to claim that student teachers’ personal
experiences had a profound influence on the development of their embodied identities as healthy, physically active individuals, and in turn, their embodied identities influenced their experiences of HPE. Moreover, their embodied identities from outside of school influenced the ways that student teachers viewed themselves in the context of HPE. In the following two sub-sections I consider student teachers’ personal experiences in relation to: their identity/ies and their relationships with other class members (in terms of a sense of community in their cohort).

5.2.1 Embodied identity

In Chapter Four many student teachers reported not feeling a sense of belonging in HPE classes. Their sense of belonging (or lack thereof) was strongly influenced by the identities with which they personally associated, “attached” to themselves, or embodied, and which they perceived others associated with them. These identities were represented by labels; for example, identifying as either “athletic” or “non-athletic”. Yet, through their experiences of the four 3-hour HPE classes at Windermere, some student teachers were able to re-assess how and where they positioned themselves in the landscape of HPE. For example, in her first interview Natasha revealed that one of her primary anxieties about teaching HPE was that she thought she would be required to teach HPE in similar ways to how she was taught when she was a school pupil. This feeling is common amongst many beginning teachers in HPE and in other subject areas (Dowling, 2011; Lawson, 1983; Lortie, 1975; Loughran, 2006). However, after completing the pre-service HPE course, one of the main aspects that Natasha felt she would “take” from the course was a realization that it was possible to teach HPE very differently to how she was taught:

I think [the main thing I take is] just knowing that I don’t have to evaluate students the way I was evaluated. I don’t have to evaluate them by their ability. I don’t have to teach HPE the way that it was taught to me. I think I was afraid of having to do that to other kids and being a fake. Because kids can tell when you are fake. So I think going in to teach something I don’t know and I don’t like – but acting like I do know it and I do love it – I think that was really something that was scary for me. So just knowing that I don’t have to teach that way. It can be a collaborative learning experience, it can be learning together, it can be bringing in experts. All those kinds of things relieved a bit of stress from it.

(28/1/2010)
Natasha felt that if she had been asked to teach in a similar way to how she was taught as a pupil that this would require her to adopt a “fake” or inauthentic identity as a teacher of HPE. However, learning ways to teach HPE differently allowed her to feel that she didn’t have to be fake and that she could introduce learning experiences that more closely reflected her personal approach to teaching and that she found meaningful.

Skylar also felt that the HPE course provided her with assurance that she would not have to adopt an identity that she would be uncomfortable with and which she associated with some of her HPE teachers. She recalled an image of one HPE teacher who was uncaring, inconsiderate, and similar to a “drill-sergeant”; an identity that several other student teachers, such as Ralph and Jane, ascribed to their HPE teachers and which is similar to images of HPE teachers that have been reported elsewhere in the literature (Allison et al., 1990; Armour & Jones, 1998; Tinning, 2004; 2010). Skylar said:

I don’t feel as anxious teaching gym; I don’t feel like I’ll be hated by all the kids because I’m teaching gym. I don’t feel like that horrible, evil gym teacher. When I remember my gym teachers (especially the lady I had when I went to school in Moscow) it was this real [rough], army-type woman who made us run laps. I just can’t get that image out of my mind. She made us play dodge-ball with a basketball because the school didn’t have any soft balls. She didn’t care if somebody got hit in the face with a basketball. She thought, growing up, it makes you tougher. (28/1/2010)

While Natasha and Skylar spoke of their identities in terms of “becoming” teachers of HPE, Andrew found that certain pedagogical approaches that could be used to teach HPE content helped him identify more closely with the subject matter. Andrew, who self-identified as “not being good at sports” in the previous chapter (see section 4.2.1.1), spoke of the difference in some of the approaches to HPE used by his instructor at Windermere University and how this made him feel more comfortable with his own identity in the gymnasium:

In general, I think the course at Windermere just made me realize that there is a vision of HPE which is different from what I had experienced when I was growing up. I think I appreciated that and I think I felt more confident about my
abilities to approach an HPE class in the end. Because I realize that you don’t need to be a really physically coordinated, athletic-type to pull it off. I think there is a lot that one can bring in to it not being that type of person. (18/1/2010)

In a later comment, Andrew appreciated learning about the Teaching Games for Understanding (TGfU) model (Bunker & Thorpe, 1982; Griffin & Butler, 2005; Kirk & MacPhail, 2002; Mitchell, Oslin & Griffin, 2005; Mandigo, Butler & Hopper, 2007) – a novel, constructivist approach to teaching games – and felt that this approach to teaching games allowed other parts of his identity to be recognized as strengths in the context of HPE. He said:

I enjoyed [TGfU] because it also made me realize that there is a lot of creativity that can come into play when you’re teaching HPE. I like inventing things. Usually it happens with words (I like writing songs) but I like to be creative and I think it’s one of the things that I’m good at; coming up with new ideas. TGfU made me realize that you can actually develop skills in students and have fun designing new games or activities or exercises. I thought that was good.
(18/1/2010)

Although the extent of learning about TGfU and its intricacies was not covered in depth (Andrew claims he read one journal article on TGfU and participated in a series of modified games for half of one 3-hour class), he felt it gave him a new perspective on learning about games that encouraged development of a wide variety of skills beyond the discrete motor skills that are emphasized in the traditional approach to learning games. In the traditional approach to learning about games that Andrew had been exposed to in his prior experiences, pupils typically learn about and perform a series of sport-specific skills or techniques (such as dribbling or performing a lay-up in basketball) before progressing to a modified game. One of the main criticisms of the traditional approach has been that it does not effectively develop pupils’ awareness of how to effectively transfer the skills being learned into the context of game play (Kirk & MacPhail, 2002; Mandigo et al., 2007). In contrast, the TGfU model encourages pupils to learn about skills and strategies by playing the game. Moreover, it specifically addresses development across several domains: physical, cognitive, and social. Singleton (2009) notes that in TGfU learners “are encouraged to engage with content intellectually and kinesthetically and to
actively participate in solving problems, discovering solutions, and experimenting with techniques and tactics” (p. 332). By working mostly in small groups pupils are encouraged to collaborate with their peers and to use prior knowledge to develop more complex understandings about new tasks or situations (Mandigo et al., 2007). Learners engage in a cyclical process of understanding and appreciating game form, developing strategic thinking, making decisions, and selecting and applying appropriate skills/techniques (Kirk & MacPhail, 2002). The process allows learners to develop their conceptual understanding of the game/s as well as their skill levels, thus leading to greater confidence and motivation to participate. Furthermore, a main aim of TGfU is to help learners recognize how what they are learning is transferable to a wide variety of physical activities beyond individual and team games (Mandigo et al., 2007).

By learning about games through TGfU, Andrew felt more motivated to participate in HPE than he did when he was a school pupil because he was provided with a learning environment where his creative abilities were encouraged. In turn, he felt that this allowed him to engage with the content more meaningfully than in the traditional skill-focused model and he began to feel that his creative identity “had a place” and could be valued in HPE. It should be noted that while Andrew and several other student teachers such as Jane, Joey, Natasha, and Ralph recalled learning about the TGfU model (albeit on a superficial level), other student teachers experienced learning how to teach games using the traditional skill-focused approach. There were mixed responses to both approaches and these are discussed in later sections of this chapter (see section 5.3.1.2).

Several other student teachers also came to feel that they “had a place” in HPE, claiming to feel more included in the pre-service HPE course than they had felt in their elementary or secondary HPE classes. In particular, a sense of community and togetherness was referred to as positively influencing several student teachers’ experiences of the HPE course at Windermere.

5.2.2 Community

Beck and Kosnik (2001) suggest that, given several conditions, developing a sense of community amongst faculty and student teachers can result in an effective form of pre-service teacher education. Community can be developed in teacher education by having student teachers: support and learn with and from each other; interact and participate in events and activities in the teacher education program; acknowledge and show concern for individual and minority points of view, and develop meaningful relationships with faculty and peers (Beck & Kosnik, 2001;
Sumsion & Patterson, 2004). Often a sense of community can be achieved in pre-service teacher education programs by assigning student teachers to cohorts either on campus or during practice teaching, as well as by frequently using small and large group work for projects and class discussion.

The notion of community was raised several times by student teachers in this research. In particular, a sense of community helped some participants overcome some of their initial anxieties about learning to teach HPE based on their prior experiences. For example, in Chapter Four Natasha recounted some of the reasons for her negative prior experiences of HPE as a school pupil. She identified experiences related to her embodied identity as a non-athletic individual and spoke of the strong influence of body image during high school. When Natasha was asked about her experiences in the HPE course and the extent to which she was able to address or overcome her prior experiences related to body image, she said:

I didn’t have any worries about that at all. I think a huge part of that was that we didn’t have to go into a change room or anything. So I think that definitely helped. [Also], there wasn’t really anything where we had to perform; we weren’t ever graded on our ability, which I think was good. We just went to play, to have fun, and to learn. There was not a lot of pressure. I didn’t really have any worries about either of those things during the course. (28/1/2010)

From her prior experiences, Natasha felt that “success” in HPE was determined by natural ability in relation to other members in her classes. Furthermore, student success in HPE seemed to be determined by the teacher’s perceptions rather than by the pupil. Natasha acknowledged the non-competitive, collaborative environment that was established in the HPE classes at Windermere, where she felt relieved from pressure to perform allowing her to participate in an atmosphere where she did not feel that the instructor or her peers were judging or evaluating her. Thus, “judging” or “evaluating” can be considered both formal and informal in HPE: formal in the sense of contributing to one’s academic grade and informal in the sense that it contributes to one’s perceptions of how others view them.

At Windermere Natasha was enrolled in the Urban Cohort, whose focus was directed toward learning about issues related to social justice and equity in educational environments. From the beginning of the pre-service teacher education program in September 2009, student
teachers in the Urban Cohort were exposed to and discussed several current educational issues that might be described as sensitive (such as Africentric schools, anti-homophobia education, boys-only education, teaching immigrant children whose primary language is not English, and so on). However, the faculty coordinators affiliated with the cohort had made special efforts to promote respect and tolerance within the cohort, making it feel like a “safe” environment where student teachers could feel that their voices could be heard without fear of harassment or recrimination. Natasha acknowledged how the sense of community amongst student teachers in the Urban Cohort made it feel more “like a family”, creating an environment where it was acceptable to feel vulnerable or out of place in an educational setting:

I think it probably helped that our class is really close. I probably wouldn’t have cared if anyone thought anything about me because we’re all kind of like family now. So that definitely would have changed the dynamic a little bit. I guess just myself too; I mean I’ve grown up since then. I think I’m maybe a little bit more confident and there were other people in the class who were in the same spot as me; who didn’t know anything and we didn’t really enjoy gym as kids… Not being the only one who didn’t know what I was doing was really helpful too.

(28/1/2010)

For Natasha, the sharing of her prior HPE experiences with other members of the cohort made her realize that she was not the only one “who didn’t really enjoy gym”. Thus, when positioning herself amongst her peers, she did not feel as isolated as she had in elementary and secondary HPE, and she came to feel that she was not out of place in the HPE course. Specifically, she came to the realization that she was not the only student teacher in the Urban cohort who had negative HPE experiences as a school pupil. This realization made the experience of learning to teach HPE not as daunting as it had seemed at the beginning of the pre-service teacher education program.

Similarly, Joey, who was enrolled in the Uptown cohort, acknowledged the sense of community amongst his fellow student teachers and how this was fostered by the HPE teacher educator. Joey felt that the sense of community and a focus on inclusive HPE practices helped him view and experience HPE differently from when he was a school pupil.
It is different. I think it does get looked at differently. Those people that you are doing it with are friends or people that you spend your social time with. There isn’t that feeling of: “I don’t want him on my team or her on my team” or “She doesn’t have this skill or he doesn’t have that skill”. It was very inclusive. It was in an inclusive environment. As far as what went on in the class, inclusive games went on in the class. Everyone was involved. (1/2/2010)

While Natasha and Joey felt that a sense of community fostered by both student teachers and teacher educators enabled their participation in the HPE course, Anastasia felt that possible negative aspects of developing a sense of community (such as acknowledging and dealing with interpersonal conflict) were not highlighted at Windermere University; both in HPE and in the teacher education program generally. Like Natasha, Anastasia also dealt with issues related to body image and negative self-esteem during her HPE experience as a school pupil. Particularly in HPE, she felt that learning in social situations could impede how some pupils learn and she did not feel that these issues were discussed, nor were student teachers offered ways to address these issues when they were teaching their own classes:

I have a lot of problems with all the games being so social. But… HPE is a social experience a lot of the time. And they don’t really address the detriments of being in a social community all the time. I wish they would have related bullying directly to some aspects of HPE, because when you’re in HPE and in gym clothes, a lot of you is exposed and in other classes it’s not. And you always have to be working together in a game against other teams and there are all sorts of hierarchies in that environment that don’t really exist in other classes. I think that’s a huge part of the whole learning environment and atmosphere that stands out within an HPE class. Because that can be one of the reasons why it’s so hard for some students to be in that situation. (1/3/2010)

Anastasia points out that it was partially the group nature of the activities that are encouraged in social constructivist forms of learning that contributed to making her HPE experience negative; both as a school pupil and as a student teacher. Thus, simply offering small-group learning does not necessarily result in effective community building or positive learning. Student teachers
should learn a variety of ways to make pupils feel included in their classroom activities. For example, both individual and team/group activities should be offered. Moreover, pre-service teachers should discuss the advantages and disadvantages of learning in groups and be taught how to facilitate positive interactions amongst peers. This could be done by having specific roles for pupils in the group, such as those proposed in the Sport Education curriculum model (Siedentop et al., 2004).

Building community in a cohort of student teachers requires special efforts from all involved, particularly in regards to: selecting appropriate programmatic structures that foster a sense of community, such as mixing groupings of student teachers; having faculty model community building; explicitly discussing community building in classes, and adopting small group formats for projects and assignments where respect and tolerance amongst group members is made paramount and opportunities are provided to learn from one another (Beck & Kosnik, 2001; Sumson & Patterson, 2004).

5.2.3 Summary of personal experiences

Analysis of interview data suggested that student teachers’ personal experiences in the pre-service HPE course influenced, and were influenced by, their embodied identities. For example, Natasha and Skylar mentioned positive experiences in the HPE course that led them to discover that they did not have to adopt inauthentic teaching identities or identities that they felt negatively about. Furthermore, Andrew identified aspects of his identity as a creative person that could be viewed as strengths when using the TGfU model to teach games; his previous experiences of HPE had led him to believe that he was simply not good enough at sports or athletic enough to be able to teach HPE. This finding supports previous research that indicates pre-service and beginning teachers are inclined to believe that they will be expected to teach in ways similar to how they were taught, as well as similar content (Darling-Hammond, 2006a; Lortie, 1975; Loughran, 2006). Of interest is that some of the student teachers interviewed felt that the HPE course content and the pedagogies used offered ways to disrupt their negative prior experiences of HPE. Several student teachers also referred to a sense of community, both in the cohort in which they were enrolled and in the HPE course, as influencing their views, beliefs, and experiences of HPE. This was viewed both positively and negatively by the student teachers interviewed. While experiences that could be classified as personal were present in student
teachers’ experiences of the HPE course at Windermere University, they were not as prevalent, nor as influential, as the personal experiences described in Chapter Four.

In the following section I describe and analyze student teachers’ experiences of the HPE course. In the first sub-section I analyze course experiences related to the HPE course syllabi and activities that student teachers participated in. In the second sub-section I analyze experiences related to the HPE course instructors.

5.3 Course experiences

One of the primary reasons that I began this research was because I was concerned about the quality of student teachers’ prior HPE experiences and the influence these had on experiences of the pre-service HPE course. Based on Dewey’s (1938) theory of experience, prior experiences profoundly shape present and future experiences. As such, I was interested in learning about the nature of student teachers’ experiences in school prior to the pre-service teacher education program and in pre-service HPE. I was also interested in exploring the types of experiences that they tended to feel positively and negatively about. Student teachers’ prior HPE experiences that were analyzed and discussed in Chapter Four supported previous research highlighting the strong influence of student teachers’ embodied identities (Garrett & Wrench, 2007; Morgan & Hansen, 2008a), their experiences of HPE curriculum which tended to be focused on team sports (Allison et al., 1990; Morgan & Bourke, 2008), and their experiences of HPE teachers, who often had embodied identities, beliefs, and values that stood in contrast to many pupils (Tinning, 2004).

Before embarking on this research process I wondered whether one brief pre-service HPE course could be powerful enough to help student teachers address or overcome negative associations that they had with HPE content or the pedagogies/processes used to teach that content. In this section it is my goal to analyze aspects of the course that student teachers felt positively about, as well as highlighting other aspects they felt negatively about.

The four 3-hour classes where student teachers learn primarily about HPE content and pedagogies at Windermere reflects what Graber et al. (2008) summarize as being a common dilemma in pre-service HPE teacher education for elementary classroom teachers in the United States; too little time to learn too much about teaching HPE. The feeling that the pre-service HPE course at Windermere was “hardly sufficient” (Graber et al., 2008, p. 153) was evident in the ways that some student teachers spoke of their HPE course experience. Although they reported
mostly enjoying the HPE course, several student teachers referred to the brevity of the HPE course as being inadequate to sufficiently prepare them to teach HPE. For example, Hailey suggested that the four lessons were “not sufficient” to learn HPE in depth (5/3/2010); Jane observed that the course was “so short” (18/1/2010); Anastasia claimed that “you barely touch on anything” (1/3/2010), and when things were touched upon, Julia mentioned that “we did everything at very much a surface level” (4/2/2010). Anastasia’s experience was made even more extreme because she attended only two HPE classes due to illness. These are hardly circumstances where teacher educators can provide effective HPE teacher education.

The following comment by Andrew illustrates my underlying concern about the HPE course at Windermere University. Despite reporting generally positive feelings about the course, he struggled to remember specific examples of what he had learned in HPE due to the heavy demands placed on him in the teacher education program generally:

I find that what happens to me with courses like HPE and art and music (which I’m taking right now), is that because we only have four sessions and because there is a movement, a really fast movement, between one class and the other, it’s easy to forget some of the details that came up in the class. So I definitely would have to go back and revisit a lot of that. (18/1/2010)

Several other student teachers, such as Campbell, Julia, Natasha, and Ralph made similar observations. By presenting this dilemma in the introduction to this section on course experiences it is not my intent to paint a negative picture of student teachers’ experiences of the HPE course that follows. Rather, I am suggesting that the reader proceed with a degree of caution. The analysis that follows presents a mostly positive response from student teachers in the ways that they recalled the HPE course syllabi, activities, and instructors. However, it should be noted that the HPE course experience is a very small part of their experience of the pre-service teacher education program at Windermere University. Thus, while positive claims were made regarding the experiences of the course and its utility closely after the HPE experience, it is worth questioning the extent to which these experiences provide sustainable learning where student teachers undergo positive change in their views, approaches, and practices regarding HPE that they will take with them into their beginning years as teachers.
5.3.1 Experiences of HPE curriculum

In Chapter Four (section 4.3.1), I reported on student teachers’ experiences of HPE curriculum\textsuperscript{15} from their time as elementary and secondary school pupils. Analysis of their experiences suggests that they did not value HPE as a time where they learned about, for example, health, physical activity concepts, their bodies, their emotions, or interactions with peers; rather it was seen as a time when they could “blow off steam”, play, or expend energy before returning to classroom activities in other subject areas. Several student teachers pointed out that the activities they participated in as pupils were fairly narrow in their scope (concentrating on team sports), which meant that some struggled to find personal meaning and relevance in the HPE curriculum. However, following the HPE course at Windermere, most student teachers who were interviewed came to see HPE as a valuable part of the curriculum for various reasons, while also broadening their visions of what HPE curriculum content entailed.

5.3.1.1 The value of HPE: Meaning and relevance

Of the ten student teachers who were interviewed in this research, nine reported finding the HPE course at Windermere enjoyable and useful to a certain degree. In particular, several found that it challenged their prior assumptions about what and how they would be learning to teach in HPE. For instance, following his experience of the HPE course, Joey claimed:

Well, now I’m thinking of it as not just a sports course. I’m thinking that health is also in there. So what discussions can be had in HPE? My biggest thing is to make sure children find their voices. And is there a way that children can find their voices in HPE too? I used to think not really but now I think, yeah, there is. And there are probably some really good ways to get learners who are very sports-oriented to grow in other areas through sports or through HPE. (1/2/2010)

Joey felt particularly pleased with the focus on inclusive classroom practices demonstrated by his instructor and also found useful the ways that health concepts were linked to the physical

\textsuperscript{15} As mentioned in Chapter Four (section 4.3.1), I have chosen to use a definition of curriculum proposed by Marsh and Willis (2003), who view curriculum as “an interrelated set of plans and experiences that a student undertakes under the guidance of the school” (p. 13). In the context of this part of the research, the school would refer to the teacher education institution.
activities that the cohort participated in. Joey also enjoyed learning about health concepts in and of themselves. For example, he was impressed by the approach taken by a guest speaker who presented a workshop on teaching about healthy sexuality to pupils in the J/I grades. Of his HPE course experiences, Joey said:

Everyone was involved… One of my biggest memories of that class was [the guest speaker on teaching healthy sexuality] who came in and talked to us and us actually talking. And that component of HPE… I wasn’t even thinking of that as HPE. You know, you get to think of hockey as HPE. But now my mind is a little bit different in terms of what I think about HPE. (1/2/2010)

Other student teachers such as Andrew and Julia also spoke of how different the approaches to HPE that they were exposed to in the pre-service course were from their HPE experiences as school pupils. Through different approaches, Julia found some personal meaning in the HPE course by experiencing pure fun – something that appeared to be sorely missing from her recollections of her HPE experience as a school pupil as described in Chapter Four:

It was funny. I just laughed my way through it. It wasn’t stressful. What I take away from it, number one, was how to get the kids to enjoy this aspect of learning. It was fun. We had fun, fun, fun doing it. That was great. (4/2/2010)

Providing a fun experience in HPE may be valid, however, I feel that more needs to be done to ensure that learning is occurring in HPE. Because some elementary student teachers failed to find meaning in HPE as school pupils, the potential for learning in HPE needs to be made explicit to student teachers in pre-service teacher education. If learning opportunities are lost during the pre-service program, it may be unlikely that student teachers will offer meaningful experiences for their pupils when they are teaching. While Julia also felt that having fun was a valid approach to HPE, she highlighted the lack of emphasis on principles or concepts that could be or were being learned:

I don’t even know if... I presume there is a learning aspect. As I was going through those four little classes I wasn’t taking a lot of notes about the learning at
all. It was more like a ton of games. That was what we did and I think that’s very valid… Some of the fun stuff was approached through being sort of silly. I don’t know that the style of teaching would be my style necessarily. I kind of felt like I was on a cruise or something! A lot of conga line, a lot of “Yeah, we’re moving and having fun!” Not a lot of complex thought was going into any of the activities and I would have been interested maybe in learning more. (4/2/2010)

Other student teachers such as Natasha, Ralph, and Skylar, spoke of an activity called “Chuck the Chicken”, where participants use a rubber chicken instead of a ball to develop some of the skills and strategies of striking/fielding games, such as softball or cricket. These experiences were described as being somewhat “memorable” for the student teachers (for example, Natasha: 28/1/2010), however, it is worth considering: what was memorable about it? For instance, was it simply a fun game with a unique or quirky object or task, or was it memorable because something meaningful was being learned using that object or participating in that task? Elsewhere, Shen, McCaughtry, Martin, and Dillon (2006) explored the role of seductive details in secondary HPE; these are elements added to a lesson that stimulate pupils’ interest in an activity but that have little or no relevance to what is being learned. The authors found that seductive details obstructed pupils’ “recall of important learning content and transferring problem solving” (p. 498) in the activity in which they were participating. So while fun elements, such as using a rubber chicken, may be worthwhile to include in HPE activities to stimulate pupil interest and engagement or act as a “hook”, it should be ensured that the learning objectives are made clear and are emphasized throughout the lesson and reflected upon following participation. In Julia’s experience, it appeared that, while having fun prompted entry into the activities, in some ways it obstructed opportunities to learn meaningful skills and concepts.

While the quotes and insights discussed above highlight how some student teachers came to see the value of HPE as a subject area, other student teachers found the HPE course valuable in the extent to which it helped them feel prepared to teach HPE. That is, it did not necessarily help them change their beliefs or come to see the value in the activities that they were learning about or value the benefits of including HPE in a child’s education; rather it was valued for the tangible strategies and principles of teaching that it provided them with.
5.3.1.2 Preparedness to teach HPE

The activities that student teachers participated in and the experiences they had during the pre-service HPE teacher education course contributed to their sense of preparedness to teach HPE. There were a variety of activities and/or experiences from the HPE course that student teachers felt provided them with useful strategies and principles for teaching HPE. For example, Hailey recalled:

We got a whole bunch of lesson plans and different games we can play; you know, cooperative games and learning about balance, strength, and all those components of HPE… We did stations – or we called it “Mission Possible” – so we’d go to different stations in the gym and we’d do different kinds of endurance activities, like jumping jacks or push-ups or running or any kind of thing to get your heart rate up. We did some balance exercises. We role-played being in the circus and we were all the different kinds of performers in a circus and we had to put together a little skit. We did some basketball: some dribbling and some shooting, and volleyball with a beach ball. That was a lot of fun. And we learned some of the health aspects. (5/3/2010)

Andrew also made reference to a fitness circuit that he participated in; however, in a similar way that Andrew found TGfU to be a positive component of the HPE course, it was the constructivist pedagogies that he and his fellow student teachers were encouraged to think about rather than the content per se, that he found useful. Specifically, group activities and experimenting with differentiating instruction were two key learning aspects that he recalled positively:

What I remember of the HPE class are those moments when we did things together as a group in the gym. I remember those games that we did at the beginning and I also remember that day that we had to go through the circuit and see how we would go about doing the different exercises or telling students to do it and maybe how we could modify them or differentiate the instruction a bit. That was definitely good. (18/1/2010)
Ralph also mentioned several experiences where he learned some general principles about how to modify activities and differentiate instruction:

Even just taking a game with tossing a beanbag into a target. Start with that and make a variation. Maybe with the size of the hoop or using a ball instead of a beanbag; then how far back you’re standing. Changing and making variations makes a huge difference in making it more interesting. It’s not the same thing time after time. [I also liked] that [the instructor] didn’t make it so competitive. Certainly competitiveness is for some people but not everyone. Those are the big things. (25/1/2010)

While Andrew and Ralph learned some principles about modifying activities and differentiating instruction, several participants, such as Campbell, Jane, and Natasha still felt that they needed to know more about certain sport-specific skills before they could begin to modify or adapt these activities for their pupils. Anastasia also made reference to her lack of content knowledge and how this meant that she could not effectively make some activities accessible to her pupils:

They’re saying: “OK, now you can teach HPE” I’m like, “No I can’t!” So it’s difficult in that way. I don’t know how to play basketball or badminton any better than I did before. I mean you refresh your mind on how to play them just by looking at the rules but how do I make that accessible to other people when it’s not really even fully accessible to you? I don’t understand any rules of the games. (1/3/2010)

Hailey also mentioned that she would find it difficult trying to modify activities to suit pupil interests and needs, and to differentiate instruction in HPE based on her perceived lack of content knowledge:

There’s always a need for differentiating and accommodating students and to this day I don’t think I have a very good grasp of how to be able to do that with differing abilities, with all the different challenges that students may face and how
to accommodate every kind of student. We were given some ideas but I still don’t really know if a student is not able to move a certain way or if they have certain handicaps or whatever; how to allow them to participate in certain activities without feeling like they’re not contributing or without having them feel like they’re left out. So just accommodation or modification; more ideas for that.

(5/3/2010)

The points raised by Anastasia and Hailey echo claims by Grossman et al. (2008) and others who have pointed out that having a deep understanding of subject matter is essential for teachers to be able to teach in an equitable way (see section 2.1.2.1). Teachers who have a solid grasp of subject matter knowledge are able to listen to pupils’ concerns and present content in a variety of ways to enable learners of all abilities to explore problems and make connections between the content and their own lives (Ball, 2000).

While several participants pointed out that they did not necessarily learn how to make modifications or to differentiate instruction effectively, others felt that the resources and sources of reference that they were provided with in the course gave them a place where they could refer to and access to help develop their teaching skills in their early years of teaching.

5.3.1.2.1 Resources

Along with specific activities that occurred during the 12-hours of HPE course time, several participants referred to the resources that they received during the course as helping them feel prepared to teach HPE. Not only did the resources provide student teachers with material to study or refer to learn about teaching HPE, they also found that having access to these resources in their early years as teachers would help lessen the extent to which they felt overwhelmed preparing and implementing HPE lessons. As Natasha said: “It’s really helpful to know that I have a place that I can go and everything will come back to me”. (28/1/2010) In particular, a CD-ROM that was written and provided by the provincial HPE association containing lesson plans and assessment tools/rubrics linked to the provincial elementary HPE curriculum was thought of as especially useful. Jane said:

[With the CD-ROM we received] I don’t even have to get creative; there’s my programming for HPE if I need to use it. I do feel a lot better prepared than before
doing the course. And it’s offered me some interesting insights into how to spice it up so that it’s not just traditional sports. (18/1/2010)

Campbell, Hailey, and Julia who were preparing to teach in the P/J grades also acknowledged the resources that they were provided with by a guest speaker from an external nutrition source that came to their respective classes. Each student teacher in their class received a package with a set of materials to teach pupils in grades 4-6 about nutrition and healthy eating. Student teachers in two of the J/I cohorts also referred to materials they received from the guest speaker who taught about healthy sexuality.

In addition to specific resources, some student teachers referred to their course assignment as being helpful. The assignment was common across all cohorts and was used by each of the HPE teacher educators. In this assignment student teachers reviewed a website that addressed certain aspects or topics in the provincial HPE curriculum and shared their review with several of their peers. Julia found that the assignment helped broaden her scope of the possibilities of HPE programming:

[The assignment] was great, that was a good aspect of the class. We were asked to research websites and then present them in groups and that was terrific. The six or seven that we went over in our group were very rich and it helped to make connections beyond what I traditionally think of as an HPE class. The website I was asked to research was Evergreen\textsuperscript{16} and at first, my husband said: “How does that relate HPE? Oh I know. You make them run up and down the hill of the [valley]”. But it was wonderful. It did help me to open my eyes to things like, gardening as a physical activity: being outdoors is going to promote being with and learning through your body and movement. It was wonderful. Eating local and knowing about food: absolutely fantastic. (4/2/2010)

Andrew also found the assignment useful and felt that it could benefit both he and his pupils:

\textsuperscript{16} According to their website, the mission of Evergreen (2011) is to make cities more livable by deepening the connection between people and nature, and to empower Canadians to take a hands-on approach to their urban environments in order to improve the health of Canadian cities.
I looked at a website that had to do with Daily Physical Activity (DPA). I thought that website had a lot of links and resources that were good. I liked the fact that videos were included and that clear activity ideas were offered in terms of what you can do in the classroom or what you can do in a common space or outside. There was just a lot of information. So if I was in a situation where I had to come up with DPA activities, I would definitely turn to that website and whatever sources I would learn about to get ideas. Just talking to some of the other student teachers, it was nice to realize that there are some really dynamic websites out there that are useful not only to teachers but to students. It’s good also when you are teaching to be able to point out to students that there are sites that would be valuable to them. I think it’s definitely information that I’ll hold to and keep on file until the day comes that I’m teaching HPE. (18/1/2010)

When student teachers thought about the specific activities they experienced, the resources they received, and the assignments they completed to come to a general conclusion about the HPE course, most were generally favourable in their responses regarding the extent to which they felt that the course prepared them to teach HPE. However, it should be noted that these remarks were made prior to the first practice teaching experience; as such, few student teachers would have had opportunities to experience the “realities” of teaching in a gymnasium or in the playground. The following comments reflect how several student teachers generally felt about how the course had prepared them to teach HPE in elementary schools. Some make reference to a question I proposed where student teachers were asked to give themselves a score out of ten for how prepared they felt to teach HPE following the course:

It was a good program. It put me more at ease I guess, in preparation for teaching HPE. I still feel like I want to try it. I’m going to do a lesson next week [in practice teaching], so it’s going to be interesting to see how it goes. But yeah, it made me feel like I’m more prepared than I initially thought… So before [the course] I would definitely be under five; it would probably be a three or so. Now, it’s like an eight or a nine, even! An eight I would say, just because I haven’t done it yet and I don’t know quite what to expect. But I bet you, if [practice teaching] this week goes well, if my class goes well, after that I would probably be a nine or
a ten even. Just because I need to see how it would be for me. But yeah, I feel a lot more confident about it. And just having the lesson plan ideas is a huge part of it because there are so many games that I never would even think of and they all look fun and I know I’d like to play them, and I’m sure the kids would. So just having those games and not having to go searching for them. (Hailey: 5/3/2010)

I definitely know a little more now but I think it comes more from a Ministry perspective [about the formal HPE curriculum]. I know more about why, as teachers, we’re required to teach it or for students’ overall education. I know a little bit more about assessing but I don’t fully understand why we teach the things we teach. (Campbell: 8/3/2010)

It’s definitely going to make me feel more comfortable if I ever have to teach gym. Partially because we had the course but definitely because we have the resources; those really make me feel a lot better as somebody who has a terrible memory. It’s really helpful to know that I have a place that I can go and everything will come back to me. (Natasha: 28/1/2010)

In general, student teachers responded positively to the HPE curriculum (represented by the set of plans and experiences undertaken under the guidance of the teacher education institution) that was presented to them at Windermere University. They reported being exposed to inclusive pedagogies and learned that it was possible to draw from and use a wide variety of content to teach elementary HPE. For several student teachers, this stood in contrast to their prior HPE experiences as school pupils. The activities which they participated in and resources they received gave small insight into learning to teach HPE but left several feeling that much more was needed to be done in order to feel “prepared” to teach HPE.

In the following section I describe and analyze student teachers’ experiences of the other major contributing factor to course experiences (Richardson, 1996); instructors or teachers. Specifically, I present and interpret data that student teachers provided regarding their experiences of the HPE course instructors at Windermere University, including their practices, views, and approaches to teaching HPE.
5.3.2 Experiences of HPE instruction

Many student teachers who were interviewed about their experiences of the pre-service HPE course made reference to the HPE teacher educator who was responsible for teaching their cohort. Unlike the reflections on and descriptions of HPE teachers that were provided and analyzed in Chapter Four (section 4.3.2), participants did not discuss in great depth their HPE instructors’ embodied identities and the ways that these identities influenced the student teachers’ HPE experiences. Jane and Ralph, however did refer to their HPE instructor’s identities. Both appeared to frame the HPE instructors’ identities in terms of their goals for teaching HPE. What is also of interest is that both used labels to refer to identity in terms of what their instructors were not. For example, of her instructor, Jane said:

I think his goals were to show the cooperative side of any HPE class, learning through understanding. It seemed like his gym class doesn’t have to be the gym class that you had with the “whistle-blower” as a child. And I think everyone walked away with the idea that it doesn’t have to be like that… It’s very hard to do it not as you’ve been taught to. It’s very hard to do. It’s easy to fall into that same pattern, to do how you were taught. But with HPE if you hated it that much, then you would look to doing it this way. And he presented it by using guest speakers, looking at the different types of games that are out there for team building, and cooperation. (18/1/2010)

Ralph made a similar observation about his HPE instructor:

My HPE instructor at Windermere wasn’t like a drill-sergeant at all. She saw when I was having trouble and had no trouble in accommodating me, by letting me sit out or by modifying. Certainly there was some competition but she focused far more, I noticed, on innovative ideas: coming up with new games and strategies. That is much more interesting. I might be permanently poisoned against HPE after the drill-sergeant [I had in elementary school], but at least the instructor here helped mollify that a little bit. (25/1/2010)
Both Jane and Ralph spoke of their instructors in the ways that their identities differed from the HPE teachers they had as school pupils; teachers who were “whistle-blowers” or “drill-sergeants”. Furthermore, both Jane and Ralph thought about and attributed identifying labels to their HPE instructors based on those instructors’ goals and practices. For instance, Jane felt that her instructor’s emphasis on cooperative games was influential in shaping how she felt about his approach to teaching HPE, while Ralph spoke of the way that his instructor was able to accommodate his needs in the gymnasium and provided creative ways of implementing the curriculum.

Other student teachers did not specifically address their HPE instructors’ identities; instead they tended to focus on the instructors’ approaches to teaching HPE and the goals and objectives that they had for the 12-hour course. For example, in previous sections of this chapter, I highlighted how Joey and Natasha made reference to their instructors’ emphasis on inclusive classroom practices (see section 5.2.2), while Andrew commented on the ways his instructor fostered creativity in several of the activities (see section 5.2.1). Other student teachers referred to the content and the ways that content was presented as shaping their perceptions of their HPE instructors. For instance, Campbell felt that her instructor had very straightforward, broad, and some might argue, simple, goals for the HPE course:

I think her goal was to give us as many rich and useful ideas and activities as possible. In the four classes that we had, it would be impossible to teach us every skill involved in playing all the sports. So I think what she wanted to do was to give us a base that we could go out into the field with and I guess grow from there if that’s the area that we were teaching. So I think that’s probably it. She wanted to make sure that we had something to go out with that is going to include everybody, is going to be fun for the kids, that’s going to meet the expectation that we need to meet. (8/3/2010)

Despite having a different instructor, Joey made similar observations to Campbell and felt that one of his instructor’s goals was to provide student teachers with resources or ways to locate resources once they were teaching. However, Joey added to this, stating that his instructor shifted the focus away from sports (which had been dominant in Joey’s HPE experience as a school pupil) and created an inclusive environment in the HPE classes:
I think that his goals for the program were to show that HPE doesn’t have to be only sports, skill-based learning and that there are ways to include people in HPE class who don’t necessarily want to be in HPE class. I think that one of his big goals was to give us the tools to find ways to do that and ways to find resources and ways to look at what’s around us (as far as service goes) for things that we are not experts in, to not just better our practice but to better the education that our students are getting. (1/2/2010)

Anastasia’s and Natasha’s thoughts and feelings about their instructors’ goals were similar to those of Joey. For example, Natasha felt that her instructor wanted to provide student teachers with resources and information, and like Joey, she also felt that her instructor wanted to make HPE accessible for student teachers who may not have enjoyed HPE as pupils and were somewhat resistant to learning how to teach it:

I think his goal was to make HPE more of an approachable subject for people who didn’t know anything about it. I think he definitely did that. He was able to model to us how we would teach the course, as well as what information would need to be included and how we could get those resources and that information. I think a lot of our professors are telling us how to do it, not necessarily modeling exactly what we’re supposed to be doing in the class. So I think that was one thing he was able to do very well. Also bringing in people in to come and talk to us was really great; that was probably another goal, to show us that you don’t have to do all the teaching yourself. (28/1/2010)

Through making classes fun, Julia felt that her instructor also focused her attention toward those student teachers who may not have enjoyed HPE as pupils. By being enthusiastic and creating fun activities, Julia explained how her instructor attempted to overcome senses of apathy or “lethargy” that some student teachers came to the HPE course with:

You know, the poor woman had to deal with us on Monday morning and we didn’t want to move or respond to anything. So one of her goals was to wake us up, to get us physical and just dive right in there. I think, going back, her number
one goal to me seemed to create fun, create enthusiasm, create a positive sense of: “Let’s get active and move around”. Certainly she achieved that. There were people (my colleagues) who, before the first class, were not wanting to go in the room. They were in their jeans and their boots and saying no and having flashbacks! And I could appreciate that. So she did succeed 100% in getting everybody feeling good about moving around in the gym… The poor woman. She met huge resistance from our class. There were grumpy faces all around. But then it amazes me that she put on the Who Let the Dogs Out song and had us crawling around pretending to be dogs and barking and nobody resisted. All of us were doing that. So power to her. But she didn’t do anything in particular. She was just like: “We’re doing this”. There was no talk about it first, you know: “Let’s work out any negative feelings”. It was just like, “We’re doing it”. It worked. But I’m positive that she did do justice to the curriculum and the expectations. I just haven’t looked at those. (4/2/2010)

Julia suggests that her instructor adopted a “no-nonsense” approach to teaching the HPE course, in that student teachers were not given the opportunity to discuss their prior experiences but were instead encouraged to “dive in there”. However, while the instructor may have succeeded in engaging the student teachers in the activities during the course, this form of practice does not indicate that those student teachers with negative prior experiences in HPE will experience sustainable and positive change in their thoughts and views about HPE that they can take with them into their beginning years of teaching. I agree with Morgan and Bourke (2008) who made the following recommendation for elementary HPE teacher education for generalists:

Teacher educators need to spend time assessing and discussing the personal school experiences of pre-service teachers and to ensure that meaningful and appropriate learning experiences are presented… PE teacher educators should recognize the importance of explaining to pre-service teachers that their lack of confidence or negative attitudes may be based on memories of poor quality [elementary] school PE that may not necessarily represent what and how PE should be taught. (p. 23)
So while Julia’s instructor arguably provided appropriate learning experiences of HPE content for student teachers, they were not provided with opportunities to assess and discuss their prior HPE experiences as school pupils. The importance of providing opportunities for critical reflection on prior experiences was recognized in this research by Natasha, who explained that participating in the interview process helped her to analyze her own prior experiences and seek ways to address and/or overcome the negative aspects of these experiences so she would not have to repeat them for her own pupils:

I think actually doing these interviews kind of helped too. Because… I never really thought about why I hate gym really. I just had a few reasons. But being able to talk it out and figure out what things affected me as a child and knowing that I won’t be doing that to other children really helps too. Knowing where to watch out, thinking about the change room situation: How am I going to fix that? How am I going to work around that for my students? How am I going to teach body image and nutrition and all the things that I didn’t learn? I think just being able to talk it out and figure out the things that I didn’t like is really going to help. (28/1/2010)

This emphasizes the demanding tasks placed on teacher educators who are responsible for “preparing” elementary classroom teachers to teach HPE. Not only must they attempt to address what they believe are the necessary aspects of HPE content and the appropriate pedagogies to be able to teach this content effectively, they must also provide guided opportunities for student teachers to critically analyze their prior HPE experiences, both positive and negative, to foster growth and development as early career teachers. This challenge is made even more precarious when teacher educators are expected to address these expectations in one brief course.

5.3.3 Summary of course experiences

Student teachers felt generally positive about their experiences of the HPE curriculum and of the HPE instructors in pre-service course at Windermere University. While several acknowledged that the brevity of the course was a limiting factor to its effectiveness in preparing them to teach HPE, others felt that their views about HPE content were broadened (for instance, beyond teaching sports) and their understanding of how to use inclusive classroom practices
were improved. Student teachers made reference to the amount and type of resources that they received as being a particularly helpful aspect of the course, whereas others felt that they needed to learn far more about how to modify activities in order to accommodate a wide range of learners.

Student teachers felt that the HPE instructors at Windermere University embodied different identities to the HPE teachers they had when they were school pupils. This observation had implications for how HPE content and pedagogies were perceived and valued by student teachers. For instance, the identities that student teachers ascribed to HPE instructors stood in contrast from “drill-sergeant” teachers that were prominent in student teachers’ experiences of HPE as school pupils. Moreover, the goals that HPE instructors had for their courses reflected an emphasis on inclusive practices, cooperative games, fun, and providing student teachers with a solid base of resources from which they could draw from in their beginning years as teachers.

5.4 Chapter summary

The interview data analyzed in this chapter suggests that the HPE course (through its curriculum and instruction) challenged the assumptions of what many student teachers believed they would be learning about in HPE. Moreover, it offered student teachers new ways to think about how HPE could and/or should be taught. For some student teachers, this helped them overcome anxieties that they would be expected to adopt the identities and practices of their HPE teachers from their time as school pupils. Several student teachers also reported enjoying a de-emphasis on competitive team sports, while others appreciated the inclusive classroom practices modeled by the teacher educators, as well as opportunities to explore and be creative with new HPE tasks. Furthermore, most participants felt positive in the ways that the teacher educators made HPE accessible to student teachers; particularly those who came to the teacher education program with negative prior experiences of HPE.

As outlined in Chapter Two, the campus-based coursework is only one of the important aspects of any pre-service teacher education program (Darling-Hammond, 2006a; Wilson et al., 2002). In the next chapter I analyze student teachers’ experiences of practice teaching.
Chapter 6
Analysis of Practice Teaching

Introduction
The practice teaching experience (also called the practicum, student teaching, clinical experience, or field experience) is considered to be one of the most important components of pre-service teacher education (Beck & Kosnik, 2000; 2002a; 2002b; Britzman, 2003; Darling-Hammond, 2006a; 2006b; Wilson et al., 2002; Zeichner, 1996). The main objectives of the practice teaching experience are to provide student teachers with opportunities: to interact with pupils, families, and teachers; to be exposed to the culture of a school; to acquire a repertoire of teaching and assessment strategies; and to allow them to put into practice what has been learned during university-based coursework. While most educators agree that practice teaching is an essential component of learning to teach, due to the large number of factors that impinge upon the quality of practice teaching placements, the quality of learning can differ substantially from one student teacher’s experience to another (Darling-Hammond, 2006b).

For elementary student teachers, most of their time during practice teaching is spent in the context of teaching “core” subjects, such as language arts, mathematics, or social studies. It has been reported that few are required to complete any health and physical education (HPE) requirement during practice teaching (Graber et al., 2008) and fewer still experience what is considered to be a strong practice teaching placement in the context of HPE. In this chapter I address aspects of the second and third research questions that concern the practice teaching component of the pre-service teacher education program: How do elementary student teachers experience the HPE component of a pre-service teacher education program? and What are elementary student teachers’ views about HPE and teaching HPE, and how does a pre-service teacher education program affect them?

Interview data were gathered following student teachers’ first practice teaching placement that took place in November, 2009 and the second placement that took place in March, 2010. All ten student teachers who were invited to participate in the three-part interview component of this research agreed to be interviewed about their experiences following the first
placement\textsuperscript{17}. However, while the same ten student teachers were invited to participate in an interview following their second placement\textsuperscript{18}, eight responded to the invitation and only seven could be interviewed. It should be noted that these invitations were sent out in April and May, 2010 at the end of Windermere University’s pre-service teacher education program when some student teachers may not have accessed their university email accounts or may have re-located. For instance, while Anastasia expressed interest in participating in the final interview, she moved out of the province before a convenient time to conduct the interview could be arranged. Taking this into account, Saldaña (2003) suggests that there is “no consensus about what constitutes an acceptable cut-off point for attrition rates before a [qualitative] study’s credibility and trustworthiness becomes questionable” (p. 20). Instead, it is best left to the researcher to decide whether such considerations affect the results. As such, because all ten participants provided information about their prior experiences, coursework experiences, and at least one practice teaching placement, I did not feel that having three student teachers miss the final interview would adversely affect the credibility of the qualitative data.

From the interview data gathered, there was a great deal of variability in the extent to which elementary student teachers at Windermere University were able to observe or teach HPE in practice teaching. Of the ten student teachers interviewed following their first practice teaching placement, two were able to observe HPE taught by an HPE specialist teacher, four observed HPE taught by a regular classroom teacher, and four had at least one opportunity to try teaching HPE. Five also had opportunities to observe and/or teach Daily Physical Activity\textsuperscript{19} (DPA) or an extra-curricular sport. Of the seven student teachers who were interviewed following their second practice teaching placement, two were able to observe HPE taught by an HPE specialist teacher, three observed HPE taught by a regular classroom teacher, four had at least one opportunity to try teaching HPE, and two had opportunities to observe and/or teach DPA or an extra-curricular sport.

The chapter is organized in two main sections. As in the previous two findings chapters (Chapters Four and Five), in this chapter I use Richardson’s (1996) categories of experience as a

\textsuperscript{17} This was the second of three interviews that were conducted as part of the data collection process.

\textsuperscript{18} This was the third of three interviews.

\textsuperscript{19} The DPA program is mandated by the Ontario Ministry of Education (2005) and requires all elementary pupils (Grades 1-8) to participate in at least 20 minutes of daily physical activity in addition to their regular HPE class and recess.
heuristic device to organize the qualitative data. In the first section I present data that represents student teachers’ personal experiences of the practice teaching placements. Specifically, I address aspects of their embodied identity that influenced their practice teaching experience. As I have done in Chapters Four and Five, in the second section I combine Richardson’s (1996) categories of “experiences with schooling and instruction” and “experiences with formal knowledge” under the heading of school experiences; in this section I analyze participants’ experiences of HPE curriculum and teachers of HPE from practice teaching.

6.1 Personal experiences

In Chapter Four, I found that personal experiences (that is, those experiences that shape an individual’s dispositions, belief systems, and so on) were strong contributors to participants’ understanding and interpretation of their experiences of physical activity and HPE prior to the pre-service teacher education program. These experiences strongly influenced how student teachers viewed themselves as becoming teachers of HPE. In particular, their embodied physical identities (as indicated by labels that student teachers gave or withheld from themselves, such as “athletic” or “not athletic”, and their views of how their bodies looked and moved) emerged as influencing student teachers’ interpretations of their personal experiences of HPE. In Chapter Five, student teachers’ embodied identities did shape their personal experiences of the HPE coursework at Windermere University to a small extent; however, the role of personal experiences was not as strong during coursework as it was during their prior experiences of HPE.

In the following sub-section I discuss how participants’ embodied physical identities influenced their personal experiences of HPE during practice teaching.

6.1.1 Embodied identity

Several participants made references to their embodied physical identities in the practice teaching placements, using labels (Jenkins, 2008) to help describe aspects of their identity and the identities of others. For example, when asked about opportunities that she had to observe or try teaching an HPE class during her first placement in November, Julia used labels to contrast aspects of her own embodied identity to aspects she ascribed to her associate teacher. In doing so, she compared the impact that a teacher’s attitude can have on pupils’ participation in HPE:
[The] teacher didn’t enjoy teaching HPE at all. She wouldn’t be dressed for it, she wouldn’t get into it – she would just sit on the bench. I could see that they emulated her body language and her posture. She would be slumped over on the bench and they were slumped over in whatever it was she wanted them to do. But when I got up to teach them dance they were fabulous, they were wonderful. They just responded to my physicality. (4/2/2010)

According to Julia, the attitude her associate teacher displayed toward HPE was embodied by the teacher’s body language. As such, the body language her associate teacher used also contributed to the identity that Julia ascribed to her. Julia felt that her associate teacher’s attitude toward HPE had a tremendous impact upon the way pupils engaged with the activities in the lesson. Julia claimed that pupils often mirrored the body language of the associate teacher, for example, slumping when she was slumping. Alternatively, pupils responded more positively to Julia’s attitude that was embodied by her “physicality”, which was shaped by more than 20 years of experience teaching dance and movement education. Julia felt that the way she expressed herself physically helped create a positive teaching experience for her and, in turn, a positive learning experience for her pupils. This early experience gave Julia insight into the positive ways movement and physical activity could be used to provide engaging learning experiences for her pupils. A positive experience teaching physical activity in the first placement gave Julia more confidence to integrate movement concepts into her teaching during the second practice teaching placement in March. In the following vignette, she described how she integrated yoga into her teaching of pupils in Grade 3:

I incorporated a lot of yoga into the classroom. I used it in all the routines, like every time we went to the bathroom (we went to the washrooms as a group) and the boys would zip in and out. I had this moment where I was standing in the hall waiting for the slower ones, so I always just did really simple breathing exercises and standing and focusing. Of course, they loved it – they would skip washing their hands so they could come out and do more yoga. It became a nice routine. And then walking down the hall wasn’t a big issue because they were so calm and focused and I didn’t have to be on their cases. I didn’t have to do a lot of behaviour management because they were just in this beautiful little state of mind.
And we did yoga in the classroom if they’d been sitting too long or if they just needed a transition between one place or another. (8/5/2010)

In this example, Julia did not “teach” physical activity concepts in the context of a formal HPE class (that is, a dedicated period in the school timetable); however, by drawing on her personal practical knowledge (Clandinin & Connelly, 1995) she was able to teach her pupils through and about movement and physical activity. Considering that in September Julia initially felt that teaching physical activity and HPE in school would primarily consist of teaching sports skills (see section 4.3.1.2), these positive experiences in practice teaching allowed Julia to envision herself as a teacher of HPE.

Jane was another student teacher who was able to draw on her experiences and parts of her identity from outside of school to inform her teaching of HPE. Like Julia, Jane was somewhat hesitant about teaching HPE when interviewed in September because, based on her prior experiences, she felt it would require her to learn and teach a variety of sports skills (see section 4.1.3). Yet in her second practice teaching placement Jane described teaching HPE to kindergarten pupils and how she drew on her experiences and identity as a mother to think about teaching that group:

I felt like I was teaching a room of my daughter, which I’m very comfortable with. I even felt just how I interacted with them, how I communicated: they were all listening, they were all excited… It went really well and I really enjoyed it. It was fun. (21/4/2010)

As well as drawing on her experiences as a mother to a kindergarten-aged daughter, Jane spoke of utilizing some activities from the HPE course at Windermere University (such as tag games and several fundamental movement skill progressions); however, because the course was aimed at teaching the J/I grades, she felt that some of these activities were too physically demanding for kindergarten-aged pupils. Her personal experiences helped Jane modify several of these activities to make them developmentally appropriate for kindergarten pupils. Moreover, this experience helped Jane challenge her concerns that HPE would primarily consist of teaching complex sport skills and provided her with additional confidence to manage activities effectively in the gymnasium. Because she felt that teaching kindergarten was like teaching “a room of her
daughter”, the experience allowed her to somewhat “ease” into teaching HPE more than if she had been asked to teach, for example, a grade 7 or 8 HPE class.

Ralph also spoke of “easing” into teaching aspects of the HPE curriculum by first trying to teach activities as part of the DPA program. In Chapter Four, Ralph labeled himself as “non-athletic” and revealed that he engaged in little physical activity in his daily life. However, through observing and teaching DPA during the first practice teaching placement, he was able to see how important physical activity is to some children: “It’s helped me see just how much young kids like moving their bodies… It was an eye opener to see just how eager they were in many ways. That was quite interesting to watch”. (25/1/2010) While assisting with teaching DPA activities helped Ralph begin to feel more comfortable teaching physical activities, he experienced a dilemma in his practice when he realized that he did not possess the content knowledge to effectively teach pupils whose embodied identities were different from his own; that is, those who he labeled as athletic. Ralph recounted an experience when he taught an activity involving a series of callisthenic exercises, such as push-ups, jumping jacks, and so on, to a Grade 3 class as part of DPA:

I also noticed – and this concerns me a little bit – one incident with one of the boys in the class. He’s athletic, I’ve seen him play sports at recess and he actually told me in the middle of DPA: “Why do I have to do this? I play basketball at recess”. It’s true. If all we’re looking for is to get them physically active this is going to be boring for him. (25/1/2010)

For Ralph, this raised the issue of differentiating instruction for pupils in his class and he found this an especially challenging part of learning to teach physical activity and HPE:

In some ways it reinforced what I was already thinking in terms of including everybody, both in terms of myself (the not so “jock-ey” type), and the boy in my practicum school who was bored. What can we do to spice it up for him, to think of how to differentiate it, and make it more interesting? (25/1/2010)

The challenge for Ralph was that he felt he did not possess the skills and knowledge to be able to modify activities that could accommodate the broad range of interests and abilities that would be
present in any elementary HPE class. Thus, while he began to feel more comfortable with the idea of teaching HPE, he came to the realization that it was going to be a difficult challenge if he aimed to teach HPE effectively.

Other student teachers also spoke of their skills and knowledge and how they felt these aspects mostly limited their effectiveness to teach HPE during practice teaching. For example, Andrew had several opportunities to try teaching HPE in his second practice teaching placement and was able to identify areas that he perceived were strengths and weaknesses in his practice. He cited his abilities to motivate pupils, develop rapport, and manage the class as strengths but felt that HPE content knowledge and his abilities to demonstrate physical skills or movements were weaknesses. His attempts at teaching HPE during practice teaching allowed him to feel more confident and “bolder” to try integrating creative tasks in HPE, yet Andrew still felt that his embodied identity acted as a barrier to teaching HPE well. In September (see section 4.2.1.1) Andrew had labeled himself as “not being good at sports” and following practice teaching he still felt that a positive athletic identity was necessary in order to effectively teach HPE.

In a similar manner to Andrew, Hailey had opportunities to try teaching HPE in her second placement and although she recalled her experience teaching a lesson on basketball skills to Grade 3 positively, she referred to her embodied identity as being a potential barrier to future success teaching sports-related activities:

I didn’t have to be a basketball star in order to teach because they’re just starting to play these competitive sports, I guess. It’s not like they’re super athletes or anything. This was actually their first basketball lesson; they hadn’t done it formally in a classroom… (Interviewer: Now you said that you didn’t have to be a basketball star but when we talked in our first interview that was something you thought might be troublesome or challenging.) I still think that. I still think that as they get to the older grades they’re going to start getting better at the sport and they’re going to need certain hints and tips and you’re going to have to know the lingo, in a sense, to teach them how to make a proper shot or whatever… I don’t know if I could do that because I’m not skilled enough, so how am I going to teach them the proper techniques, right? I’m still worried about that… I still see that as a big challenge in a way. (27/4/2010)
While Hailey came to the realization that she did not have to embody the characteristics of a “basketball star” to teach Grade 3 pupils, she did feel that becoming a skilful sports performer in her own right was necessary to teach HPE effectively in more senior grades. Hailey’s justification for feeling this way was that as pupils develop physically, they would begin to demonstrate qualities of skilled athletic performance and would expect to learn more complex skills and tasks in HPE. Because Hailey did not feel confident that she could, for example, demonstrate many sports-related skills herself, she felt that this would limit effective learning opportunities for her pupils. Therefore, if identity is a process of being and becoming, Hailey felt that much needed to be done for her to self-identify as a teacher of HPE.

As pupils develop skills and knowledge of physical activities, some teachers may not see themselves as being capable of providing meaningful learning experiences for their pupils in HPE and may revert to a “non-teaching” role (Morgan & Bourke, 2008), where HPE looks more like free time. Based on their own prior experiences of HPE as school pupils and many of their experiences during practice teaching, the sports-focused model seemed to dominate student teachers’ perceptions of the HPE curriculum and inhibited how they saw themselves as teachers of HPE. For several student teachers, it became evident that in order for them to develop an identity as a teacher of HPE they would first need to see themselves as competent sports performers. That is, only if and when several student teachers developed the characteristics required for competent sports performance that they would see themselves becoming teachers of HPE.

6.1.2 Summary of personal experiences

Facets of personal experiences did emerge from the interviews about student teachers’ practice teaching placements, however, these did not have as strong an influence as they did on prior experiences of physical activity and HPE as explained in Chapter Four. In particular, aspects of participants’ embodied identities and the embodied identities they assigned to pupils went toward shaping how they viewed their practice teaching experience in the context of HPE. Several student teachers who did not view themselves as, for example, athletic, came to the realization that one did not necessarily have to attach this label to themselves in order to teach HPE. For example, Julia and Jane were able to draw on aspects of their identities from outside of teaching and athletic endeavours to inform their practice. However, an emerging view, or “lay-theory” (Holt-Reynolds, 1992; Sugrue, 1996) that was held by several student teachers, such as
Andrew, Hailey, and Ralph was that they should be moving toward an athletic or “sporty” identity in order to *teach HPE well*, particularly when teaching the more senior grades of elementary school (i.e., Grade 5 and above). Moreover, it was assumed that the content knowledge needed to teach HPE well would come along with an embodied identity as an athletic individual. This finding has implications for teacher education because Bullough (1991) found that student teachers who possessed strong and positive self-images as teachers were able to learn and develop differently from those with weaker self-images. Therefore, helping student teachers develop positive teaching identities across subjects becomes an essential component of teacher education.

### 6.2 School experiences

Since Lortie’s (1975) ground-breaking research of the varying socializing influences on teachers, the strong effects of teachers’ school experiences have been described extensively in the literature. Thirty years ago Zeichner and Tabachnick (1981) made an alarming conclusion concerning the power of school experiences upon student teachers who are learning to teach:

> It has now become commonly accepted within the teacher education community that students become increasingly more progressive and liberal in their attitudes towards education during their stay at the university and then shift to opposing and more traditional views as they move into student teaching and in-service experience. (p. 7)

If the conclusion made by Zeichner and Tabachnick (1981) holds true, then it may stand that most of what student teachers learn during campus-based coursework becomes “washed out” by the effects of school experience. Loughran (2006) points out that student teachers’ understanding of learning to teach “may well be caught up in a search for the familiar routines and strategies that they experienced as students” (p. 105). Therefore, factors that influence the wash-out effect include the ways that student teachers deal with the curricula that they engage with (in the form of official curriculum documents or school-based initiatives) and the teachers that they engage with during practice teaching. This is not to suggest that school curricula and teachers are negative influences upon student teachers; rather, my feeling is that the way student teachers
engage with these factors leads them to develop insights into the day-to-day realities of school life, and subsequently, teachers’ lives. These realities can differ distinctly from the visions of teaching they develop on campus. As types of campus-based teacher education coursework have so often been criticized for being removed from practice, it may be of little wonder that school experiences are so powerful in shaping what and how student teachers believe are appropriate teaching practices (Britzman, 2003; Brouwer & Korthagen, 2005; Feiman-Nemser, 2008; Korthagen & Kessels, 1999).

In the following two sections (and their respective sub-sections) I describe and analyze student teachers’ school experiences during practice teaching. I use Richardson’s (1996) categories of experience as a heuristic device to think about student teachers’ school experiences, and accordingly have arranged these experiences as (i) experiences of HPE curriculum, and (ii) experiences of HPE teaching.

6.2.1 Experiences of HPE curriculum

In Chapter Four I defined curriculum for the purposes of this research as: “an interrelated set of plans and experiences that a student undertakes under the guidance of the school” (Marsh & Willis, 2003, p. 13). As such, my analysis and discussion of student teachers’ experiences of HPE curriculum primarily concerns the organization of HPE activities and the choices underlying this organization. In this section I analyze student teachers’ experiences of the HPE curriculum from their practice teaching, which includes their experiences of the structure of HPE programs and the activities that were and were not included in these programs.

6.2.1.1 The value of HPE and physical activity in the school

In Chapter Two it was revealed that while many elementary classroom teachers view HPE as a valuable part of children’s education (DeCorby et al., 2005; Graber et al., 2008; Graham, 2008), some feel that the time it takes to plan, teach, and assess HPE lessons could be better spent teaching other areas of the curriculum (Morgan & Hansen, 2008a). Based on their practice teaching experiences, in this section I describe and analyze student teachers’ perceptions of how HPE and physical activity were valued in the schools in which they were placed.

Like many of the participants interviewed, most of Ralph’s experiences teaching or observing physical activity in his first practice teaching placement came from the DPA program:
I found it very useful as a way to break up the middle of a science class or another class if they were getting bored; let them have a stretch. One thing that my [associate teacher] did, he actually had a couple of dice in his room; one with numbers, and one with physical activities, like jumping jacks or push ups. We would roll both of them and we would have to do whatever came up. For most of the kids, they were quite happy doing that. So it was very useful kind of as a stress reliever and a boredom reliever. That I appreciate very much. (25/1/2010)

Ralph’s perspectives on the value and purposes of DPA mirror those of classroom teachers’ views of HPE as revealed by Morgan and Bourke (2008). They also mirror what Campbell and Natasha recalled from their prior experiences of HPE as pupils (see section 4.3.1.1), where HPE was seen as an opportunity to “blow-off steam” or to have a “brain-break”. This supports previous claims that because of the practical nature of HPE, the subject has often been viewed solely as a component of play and leisure, and a space where little, if any, learning occurs (Hardman & Marshall, 2000; Kirk, 1988). While factors related to, for example, stress-management are indeed a valid reason for being physically active in later life, the learning opportunities inherent in physical activity-related lessons become lost when such a narrow-minded view of the purposes of HPE is taken.

Alternatively, Joey found that the DPA program was highly valued by his associate teacher as a time to teach lessons about the many reasons for being healthy. His associate teacher was passionate about leading a healthy lifestyle and saw teaching about this as a very important part of his pupils’ education:

We had DPA three days a week. But then we had [HPE] three days a week too so they were getting active. So some days they had DPA and [an HPE] period in the same day. They were physically active kids and he did talk to them. Because when we had kids who would slack off during DPA, he would often stop doing what he was doing and talk to them about heart health and obesity, and why it was important to be doing these things. He was quite into it. (21/4/2010)

From Joey’s comment it is evident that his associate teacher saw DPA as an opportunity to teach his pupils about aspects of their own health through being physically active. Indeed, Ralph and
Skylar lamented the distinct lack of health being taught in the schools where they were placed, and many student teachers tended to separate teaching of health concepts and physical activity concepts, rarely talking about any overlap between and across the topics. From observing his associate teacher model this practice, Joey came to see the value of teaching about health in and through DPA. Even though Joey thought that HPE and/or DPA took instructional time away from other subject areas, he reconciled this decision in terms of the life lessons the pupils were learning:

I think in a way it was excellent but it took time away also from things that needed to get done. But the thing with the younger grades, they’re so flexible and it’s really to me about teaching kids how to care and to be better people than it is about, you know, whatever language convention you’re teaching them. And when you’re looking at DPA and he’s talking to those kids about heart health and about eating healthy; those are life things. Those are so much more important than putting a comma here. So I was impressed. I do think it was important.

(21/4/2010)

Natasha’s experience stood in contrast to Joey’s. At the first school she was placed at she indicated that pupils did not complete the provincially mandated DPA requirements. Instead, they participated once a week in the “Moving Schools”20 program, developed by an external provider of physical activity. In Moving Schools, each week the school’s HPE specialist taught pupils from the senior grades of the middle school how to teach a 20-minute physical activity lesson. Then on Fridays these pupils would disperse to each class in the school to teach the activity to pupils. Even with an HPE specialist at the school to advocate for the value of being healthy and physically active, Natasha felt that HPE was not valued at the school. To support this claim she described how her pupils missed HPE class for two days while the gymnasium was occupied for school photographs. Natasha said that the HPE specialist felt frustrated with this time being taken away from the pupils and that the classroom teachers would not allow the pupils to make up the missed HPE class. She described her impressions of the classroom teachers’ decision to not allow pupils to make-up the lost HPE time:

20 Pseudonym
Moving Schools took up 20 minutes in the morning every week on Friday. I think the teachers kind of felt that was her taking up their time... I don’t know if Moving Schools and HPE are considered the same; [the specialist] was in charge of it but I think the [classroom] teachers just took it as: “Well, she does Moving Schools on Friday mornings, that’s my time”. (28/1/2010)

Unlike Joey who came to see the possible life lessons being learned from HPE or other physical activity programs, the teachers at Natasha’s school reinforced notions that HPE occupies a low place on the list of curricular priorities. Andrew, Hailey, Julia, and Ralph also had similar impressions from their first practice teaching placements. Although Hailey did not observe a great deal of HPE instruction because she was not encouraged to observe the school’s HPE specialist teaching, she felt that her associate teacher considered HPE to be an optional part of the curriculum and was something that could be negotiated with students or could be cancelled because of students’ misbehaviour or inefficiency working in other areas of the curriculum:

They always seemed to have an HPE teacher but it was treated like it was one of those things that could be taken away if the kids didn’t behave or didn’t finish their work... Like an optional kind of class, like most arts are. (Interviewer: So probably not held in the same regard as say, numeracy or literacy?) As literacy? For sure not. It’s a take it or leave it proposition with HPE, or even any kind of arts, or drama. It’s just kind of there as optional and if you’re bad you don’t get it necessarily, or if you don’t finish something else you don’t get to take part. But as far as the kids were concerned, they loved it. It was very punishing to them if they couldn’t go and join. I could see them being really distressed by it. A couple of times they were held back. (5/3/2010)

As Hailey indicates, even with an HPE specialist, it is not guaranteed that pupils will have sufficient time with that teacher even if they do provide a quality HPE program. In Hailey’s experience this might be due to a crowded curriculum or the perceived value in which classroom teachers hold the HPE curriculum. Julia reported that pupils in her class faced a similar predicament. As Hailey suggests, HPE was seen as something that could easily be taken away or substituted during the school day, even though an HPE specialist may have planned a lesson for
that day. Hailey viewed the taking away of HPE as almost being cruel to the pupils and her observation of the distress that it put pupils through is particularly provocative.

For several reasons many student teachers spoke of how readily HPE was substituted or cancelled in a school day and they used these examples to frame how HPE was valued in their practice teaching placements. However, several student teachers spoke of the value of HPE in terms of how it was thought about by the teachers who they observed teaching it. Specifically, student teachers often saw that while HPE was “being taught”, few, if any, were able to see connections being made to the official provincial curriculum. In the following section I describe and analyze student teachers’ experiences of (dis)connections to the HPE curriculum.

6.2.1.2 (Dis)connections to the official curriculum

In the previous section many student teachers used the example of DPA when they spoke of how HPE and physical activity were valued in the schools in which they placed. However, while both use physical activity as a primary means of instruction, DPA and HPE are two distinctly different things (Lu & De Lisio, 2010). One of the main distinguishing differences being that DPA is not guided by a formal curriculum; there are no learning objectives, assessment criteria, or intended outcomes for pupils. When student teachers made specific reference to HPE in their practice teaching placements, several wondered how, and to what extent the activities and tasks “being taught” connected to the provincially mandated curriculum. For example, Jane co-taught several kindergarten HPE classes with her associate teacher; yet she noted the extent of thought that had gone into planning meaningful learning experiences for the pupils:

There was no instruction, it was more like, “go free”… With kindergartens there was a lot of getting in line and moving our way down to the gym. All of that took 5 or 10 minutes, and then we had about 15 minutes of play. (21/4/2010)

Jane described her associate teacher’s attitude toward teaching HPE: “She considered it more as babysitting – I think – in her mind… She’ll pull games out of her pocket going down to the gym”. (21/4/2010) Indeed, while play-based learning is an important component of the kindergarten curriculum, it was evident that little planning of any type of learning had been considered prior to the class beginning. In summary of the type of HPE practices she saw on her
practicum, Jane stated: “There wasn’t much of an HPE program, you know. It was play-time, or one game”. (21/4/2010) Similarly, Ralph and Julia spoke of the limited scope of the HPE programs at the schools in which they were placed. Julia said of the pupils in her class: “They just really wanted to play dodge-ball and couldn’t wait until they were allowed to do that.” (8/5/2010)

Andrew’s observations were similar to Jane’s in that the Grade 7 HPE class activities that he saw seemed to be selected with very little purpose or thought going into the lesson. He described his experience of teaching HPE in his first placement:

The one [HPE] class that I saw was I think on a Monday morning. It was only half an hour and by the time the kids arrived at the gym, took off their coats, and went through attendance and so on, they were left with about 15-20 minutes of HPE. It was a game that the teacher had just invented a moment before the class. It worked out – I mean, the kids played it and thought it was really creative on his part – but the feeling I got was… I’m not sure how it connected to the curriculum. (18/1/2010)

So while Andrew was able to observe his associate teacher (also an elementary classroom teacher) teach an HPE class, such opportunities did not ensure that “good” HPE practice was modeled for the student teacher. As Andrew indicated, activities were constructed “on the fly” or selected arbitrarily with little connection to the official curriculum and little assessment of pupil learning occurring.

Julia had a similar experience to Andrew in her first placement except that she did not have the opportunity to observe her associate teacher or an HPE specialist teach a class. One day when her associate teacher was absent and a substitute teacher was present in the class, Julia assumed the role of substitute teacher and was asked to teach an HPE lesson that had been planned and left for her to teach by her associate teacher:

The students already knew the activity and I don’t think it was very successful, my contribution. It was a funny activity. They had to sort of mime shapes from sports things and other kids had to guess what they were doing. If that had been my lesson, I would have approached it differently because the fact that they were
standing still, they didn’t have any engagement or effort in their bodies. I didn’t get the point at all of why they were having to do this sequence of mime gestures in the gym. We could have done that in the classroom. And there didn’t seem to be any criteria for them to work on. (4/2/2010)

In reflecting upon the lesson Julia wondered about the purposes of the activities. She questioned the planning that had gone into the lesson in terms of both content and pedagogy, and drawing from her experience as a dance instructor she stated that she would have done things differently had she planned the lesson herself. However, Julia went on to say that she was “just trying to be a good substitute teacher on that day and follow up” (4/2/2010) what had been planned for her. Sirna, Tinning, and Rossi (2010) describe the tensions involved in practice teaching when student teachers are conflicted between implementing what they feel is good practice and what their associate teachers ask them to do. Such conflict is evident in this vignette because, although Julia could have perhaps planned, taught, and assessed the lesson more effectively if she had done so herself, she was cognizant that she was being evaluated on her abilities to “become a teacher”. Indeed, part of becoming a teacher often requires a student teacher or substitute teacher to follow or do what her or his associate teacher asks. Realizing this, Julia decided to simply put into place what she had been asked to do. Although she disagreed with the approach, she felt that following the instructions of a teacher (who would complete a formal evaluation at the end of practice teaching) was more important than providing a positive learning experience for pupils.

Julia also made the point of there being an absence of “criteria for them to work on” (4/2/2010), thus indicating that assessment of pupil learning in HPE was not thoroughly considered by her associate teacher during her placement. While student teachers did not recall seeing some of the questionable assessment practices that they experienced during their own days as pupils, such as assessment and evaluation being left to fitness testing results and determined largely on natural ability (see section 4.3.1.1), it appears that many did not see assessment of pupil learning occurring at all. Ralph referred to a lack of assessment processes and any subsequent evaluation of learning:

[HPE] was in some ways treated as a fun subject and in some ways treated as kind of an optional or extra subject. Certainly they would do a game but I didn’t really
see much in terms of evaluation. But the importance of physical activity and even how it could affect grades was not there I thought. (26/4/2010)

Left to their own devices to find criteria on which to assess and evaluate pupils, Jane and Natasha used (albeit unintentionally) a metaphor of sweat as a proxy for learning. For example, Jane linked her pupils’ sweatiness to her perceptions of their enjoyment of the HPE class:

They loved it. They came back most times completely sweaty. They were giving it. I got them a lot for science after gym and they were stinky and sweaty… The boys (especially) and the girls too… I think they liked it. (18/1/2010)

In an age where physical activity is often linked with reducing obesity levels and the effectiveness of school-based physical activity programs are determined by whether pupils achieve moderate-to-vigorous-physical activity (MVPA) (Pate, Freedson, Sallis, Taylor, Sirard, Trost et al., 2002), the image of a sweaty person suggests they have been exerting themselves physically and thus doing an effective job of burning calories. Natasha recounted her observation of an HPE specialist at her first practice teaching placement that showed similar connections between “working up a sweat” and an effective HPE class:

They would do laps around the gym, they would all stop to do a movement, or they would do a circuit-type thing. I don’t think they played any games when I watched; it was all kind of work and they were always sweating at the end. Then I would see them because I had the afternoon recess duty and I would go out and would all be pouring with sweat. I would say: “What were you doing in gym?” But they loved it. They were always happy so they must have had a good time. (28/1/2010)

In Natasha’s vignette she creates an image of “work” being done in the gym in contrast perhaps with “learning occurring”. She then establishes a link between the work that pupils were doing with the sweat “pouring” from them during and after the class. While sweat may be indicative of an intense physical work-out or perhaps just the temperature inside the gymnasium, it seems that, to a certain extent, Natasha linked the sweat of her students with the effectiveness
of the HPE teacher’s class. These observations are not to be critical of Jane’s or Natasha’s perspectives but rather to highlight ways in which HPE is considered. If schooling is equated with working rather than perhaps learning (Apple, 2004; Beck, 1990; Dewey, 1900/1990; Illich, 1971; Kretchmar, 2008), then such HPE experiences may produce what I believe is a distorted vision of an effective HPE program. Joey also described his initial thoughts of the purposes of HPE being about “do[ing] it” rather than “do[ing] it and explain[ing] it” (21/4/2010), a summary that seems apt when considering the limited determinants that were often used to think about the effectiveness of HPE in several student teachers’ practice teaching placements. However, when some HPE specialists determine the effectiveness and/or success of their classes by whether pupils were busy, happy, and good (Placek, 1983), it is not difficult to see how elementary classroom teachers and student teachers can make similar determinations.

When student teachers had difficulty identifying the connections that were (or were not) being made to the official HPE curriculum, it is of little wonder that student teachers see DPA and HPE as being one and the same thing. In addition to DPA, student teachers made several references to extra-curricular sport as being “the same thing” as HPE. Many other references were made by student teachers concerning their practice teaching that served to perpetuate the “HPE as sport” discourse that dominated their prior experiences (as discussed in section 4.3.1.2). In the following section I describe how some student teachers came to see teaching HPE being the same as teaching sport.

6.2.1.3 HPE = Sport

When I asked student teachers about their perceptions of the value of HPE in the schools in which they were placed, several made specific references to sports. These references were made to sports both in and out of the HPE class. In Campbell’s first practice teaching placement, the responsibility for teaching HPE was shared between a specialist and the classroom teacher, with the specialist taking the bulk of the time. The only opportunities Campbell had to observe HPE being taught were those classes taught by the classroom teacher. In these classes Campbell adopted the role of co-teacher; however, the language that she used to describe this role reflects a sports-oriented approach to teaching HPE:
I sort of collaborated with my teacher. And she had a lot of games that she taught me and I would just assistant coach the games with her. But they were new games and I was happy to learn new ideas. It was really fun. (8/3/2010)

Campbell’s identification as an “assistant coach” mirrors the notion that for some teachers, teaching HPE is the same as teaching sport. This finding has been reported elsewhere but was attributed to specialist HPE teachers who held a subjective warrant that teaching HPE was, to them, the same as coaching sport (Curtner-Smith, 1997; Lawson, 1983). What is not clear from the interviews is whether Campbell adopted this label herself or whether her associate teacher gave the label to her. Either way, it suggests that Campbell came to see the identity of an HPE teacher as being the same as being a coach.

Jane also equated being an assistant coach with teaching HPE; however, her experience did not occur in an HPE class, it was in the context of an extra-curricular sport:

I coached the junior boys’ volleyball with two other teachers and it was great. I was there right from the start to finish. They had just picked the team when I started there, so I was there with all their practices right till the end of the season. So that was my HPE interaction. (18/1/2010)

Jane enjoyed her coaching experience and from it learned more about life in schools, and she also equated this experience with HPE teaching. While there are indeed similarities and overlap between teaching HPE and coaching sports teams, there are stark differences, particularly related to planning, instruction, and assessment, for example. From Jane recounting her practice teaching experience it became evident that based on school policies, the other teachers in the school also saw HPE being the same as sport, with pupils having grades allocated to HPE from outside of the HPE class when they participated in intramural sporting activities. Jane wondered aloud whether “this was even legal” (18/1/2010).

Other participants also referred to the relationship between HPE and extra-curricular sport (including intramurals) at their practice teaching schools. For example:

There were a lot of team sports. And it’s a huge hockey school and the principal does not support the arts (she doesn’t go out to all the arts events or nights) but
she will go out to the sports events. That’s very big for her. I think HPE is very valued at that school. (Joey: 1/2/2010)

It was really important. The school was full of athletes. Everybody was on some sort of sport, or extra-curricular activity. The kids were really active outside of school, and the school sports were really a huge part of the school spirit. And so the gym classes were definitely high on the list of priorities. (Campbell: 8/3/2010)

In acknowledging the importance of either sport or HPE at the schools in which they were placed, it appears that if one of sport or HPE were valued, then it followed that the other would also be. Critique of the sport-dominant discourses that are woven into thinking about the HPE curriculum is not to position sport as an evil that should be avoided. Sport makes up an important part of the HPE curriculum and school life in general. As the comments above indicate, sport was particularly valued as a contributing factor toward school spirit. However, I feel there are two main factors that are important to consider in separating thinking about HPE and school sport.

First, in the same way that providing a balanced literacy program is advocated in schools (Heydon, Hibbert & Iannacci, 2004), so too should be the provision of a balanced HPE program; one that does include sports, but also includes fitness activities, dance, outdoor/adventure activities, and so on. If student teachers are not seeing balanced HPE programs in their practice teaching placements then it is unlikely that they are seeing or developing the skills necessary to effectively plan a balanced HPE program, teach it, or assess it. Based on their prior experiences, exposure to sports-focused HPE programs in practice teaching serves to undermine or “wash-out” what was learned in the campus-based HPE teacher education coursework, where planning and teaching a balanced HPE program was promoted.

Second, some of what are considered to be the important reasons for including sport in schools include benefits across several domains: physical (such as improved aspects of fitness), cognitive (such as improved concentration as a result of physical activity), emotional (such as improved self-esteem), and social (such as fostering interpersonal relationships) (Bailey et al., 2009). However, the perceived benefits of sport participation for children and youth have been questioned, particularly in the ways that sport can reflect characteristics of hegemonic masculinity, such as aggression, toughness, and a win-at-all-costs attitude (Brown & Rich, 2002;
Connell, 1996; Tischler & McCaughtry, 2010). Further, the participants in extra-curricular school sports are often those who participate in sports outside of school, meaning that not all pupils experience the benefits (Bailey et al., 2009).

If HPE and sport are linked in the ways that they are valued in schools, the question then becomes, not whether they are valued but what are they valued for? Hopefully most teachers value HPE and sport as a context for teaching about lifelong physical activity, relationship building, controlling emotions, empowerment, transferability, cooperating, and the joy of movement. Yet, Joey indicated from his second practice teaching placement that his associate teacher focused too heavily on what some, such as Tinning (1997) and Singleton (2003), might consider to be the less valuable benefits of sports, such as a focus on competition and elitism rather than on participation and inclusion:

When I think about what [we learned in the HPE course at Windermere], I really think of the cooperative games and the inclusion of everyone. I don’t think that he did that. He’s still an old school, team sports teacher. He used DPA – great. But DPA is one thing. It’s very different than actually going into the gym like we were in our class situation [at Windermere]. As far as that goes, he was very much more competition-oriented, and skill for application in competition. It wasn’t skill for learning, skill for growth; it was skill for competition. So I don’t think necessarily he practiced what we looked at in our class [at Windermere]. And as far as cooperative games go, I wouldn’t say he was good at that, nor would he be very good at that. Because there is part of him... like, in my time with him, that he doesn’t quite understand these new philosophies of why those things are important to a degree. (21/4/2010)

Joey’s critique of his associate teacher’s approach toward HPE was informed by what he had learned in the pre-service HPE course. The opportunity that Joey had to observe HPE being taught may have been beneficial; however, if student teachers are to experience what is considered to be an exemplary practice teaching experience, it is important that what they observe links closely with the visions of HPE that are being proposed in the campus-based program.
In order to participate in an exemplary practice teaching experience, it is necessary for there to be an interplay between the associate teacher modeling “good” teaching practice and the student teacher being afforded opportunities to try teaching and to receive feedback on their attempts (Darling-Hammond, 2006a). In the following section, I describe and analyze student teachers’ experiences of HPE teaching during practice teaching.

6.2.2 Experiences of HPE instruction

The importance of the practice teaching experience has been outlined extensively in the literature on teacher education. Darling-Hammond (2006b) suggests that exemplary practice teaching experiences consist of “extensive and intensely supervised clinical work – tightly integrated with course work – that allows candidates to learn from expert practice in schools that serve diverse students” (p. 307). Within placements the associate teacher plays a crucial role in shaping the quality of the practice teaching experience for student teachers and goes a long way to determining the overall effectiveness of the placement. In effect, the associate teacher influences both the process and the product of student teachers’ practice teaching experience. Associate teachers have been credited for doing mostly good work in supporting student teachers’ development (Beck & Kosnik, 2000). However, much of the research done on elementary student teachers’ experiences of practice teaching has examined the context of core classroom teaching; that is, the teaching of subjects that make up the bulk of the classroom teachers’ timetable, such as literacy, numeracy, and social studies (e.g., Beck & Kosnik, 2000). Little has been done to explore the extent to which elementary student teachers can, in Darling-Hammond’s (2006b) words, “learn from expert practice” (p. 307) in the context of HPE.

In addition to observing strong practice, student teachers should also be provided with opportunities to develop their own practice and receive constructive and critical feedback in order to improve. Thus, for practice teaching to be most effective, there is an interaction between having student teachers observe strong practice and having opportunities to teach, reflect, and receive feedback on their efforts from strong practitioners. In the following sections I describe student teachers’ practice teaching experiences in terms of opportunities they had to: (i) observe teachers in the context of HPE, and (ii) try teaching HPE themselves.
6.2.2.1 Observations of HPE instruction

In previous sections I have alluded to student teachers’ opportunities to observe HPE being taught in their practice teaching placements. Some teachers were able to observe HPE being taught by an HPE specialist who was employed at the school, some observed HPE being taught by their associate teacher who was a classroom teacher, and some did not observe HPE being taught at all.

In her second placement, Campbell observed what, on the surface, seems to be the closest to an approach to HPE that was being advocated in the pre-service HPE course at Windermere University. That is, she described a fairly balanced HPE program, inclusive classroom practices, and opportunities for pupils to contribute to how the HPE program was structured. Campbell described her associate teacher’s approach to the overall practice teaching experience:

My class was amazing, my [associate] teacher amazing. [She had] great classroom management skills. She had done a specialist in HPE although she didn’t teach it. So she really encouraged me to go with the children and work with some of the [specialist] HPE teachers and watch their strategies…. In the [science] unit that I was doing we incorporated movement; it was structures and mechanisms. So when the children had their gym period I went with them and they used their bodies to show me the different types of movement and [I] assessed them that way. (2/6/2010)

Campbell’s associate teacher encouraged her to observe teachers and pupils in different learning environments. This extended beyond HPE and applied to other subjects such as music, visual art, and French. Of particular relevance to this research is that Campbell was able to meet with an HPE specialist, observe his lessons, discuss how he planned and assessed a lesson, and consult with him following the lesson. She described the HPE specialist and his practice:

The gym teacher was very captivating. The kids loved him. They were always happy to go with him, all of them. I went down and he was very open to sharing the gym with me, which was very nice. Any ideas I had, he was happy to include. I usually led the warm-up type thing and he would take care of what was going on. So a lot of the things that the kids did was sort of drill-type things, relays, they
loved playing tag-type games, or dodge-ball. It was varied a lot. There were a lot of different things going on. The kids had a lot of input into what they played, which was exciting for them. If there was five minutes at the end of the class and they had done everything that was planned, he would say: “OK, we have time for a game, does anyone have something that they would like to play?” And they would put up their hand and they got to choose. It wasn’t the whole gym period that they got to do that but it was nice. (2/6/2010)

Although the specialist’s selection of pedagogies, activities, and methods may not reflect exactly what was being espoused at Windermere (such as avoiding elimination games like dodge-ball), some aspects of his practice resonated with Campbell and provided a useful platform for her to base her emerging HPE practice upon. For example, she was able to lead some warm-up activities and integrated aspects of a science unit on forces. Over time, she became more comfortable in the gymnasium both from having opportunities to observe the specialist and discuss his practice, and eventually being able to practice teaching in an HPE context herself. When Campbell contrasted her prior experiences of HPE as a school pupil and her experiences in the first practice teaching placement to what she saw during her second placement, she formed a much more favourable opinion of HPE:

Overall, I thought it was great what was going on at the school. I felt good about it. I don’t feel like they were doing anything that excluded anybody. The variation of activities was great; it wasn’t the same thing over and over again. I liked that there were different components in each gym class. There would be a little bit of sports instruction, there would be a little bit of something else, and then there would be a little bit of free time where you could choose. So I liked that. I liked that the teacher was so engaged and got the kids pumped up and excited. And there was a lot of explanation, which was something that I hadn’t seen before… When he was having the kids, you know, run around the black line, he would say: “You need to be running to all the corners because…”, and he would explain why they were doing things and it gave the kids reason to not cut across. So the explanation about why certain things were being done was great. (2/6/2010)
The practice teaching placement provided Campbell with experiences that she felt were far better than those she recalled as a school pupil and based on what she observed she began to think deeply and positively about her own emerging vision of what teaching HPE could entail. She made specific reference to the specialist teacher explaining reasons why pupils were engaging in the activities he had designed, something Joey also referred to as being modeled (although in the context of DPA) in his second practice teaching placement. Campbell and Joey explained that through observing HPE practice they were able to develop informed opinions about what was going on in current HPE classes; previously they had only their experiences as school pupils on which to base those opinions. Without seeing exemplary or innovative practices during practice teaching, student teachers then may resort to their prior experiences gained during the apprenticeship of observation, which in effect becomes a “default” for their practice upon which they may base their thoughts, feelings, and beliefs about teaching subjects (Lortie, 1975; Loughran, 2006).

The favourable practice teaching experience led Campbell to suggest structural changes to how this component of the pre-service teacher education program could be improved at Windermere University. Like many other student teachers, observing and working with children in the context of HPE led her to feel far more prepared to teach HPE than if she had to rely solely on what she had learned in the campus-based program. Also, she recommended a shift in what student teachers should be focusing on in practice teaching; from shadowing associate teachers and their work, to shadowing the pupils in the class. She summarized her suggestions for teacher education institutions based on her experiences:

I think that it should actually be required that you go to the rotary subjects with your class, to music and those sorts of things… Because I learned a lot from those other teachers by going with the kids… I did one practicum where I never went with the kids on those rotary subjects and then I did another practicum where I did go with the kids. The time was better used going with the students than prepping for my next lesson. And… I’m in school, I’m used to doing my work after school. When I knew that I would be following the kids and I knew that I wasn’t going to be getting those prep time periods, I just made sure that everything was prepared in the morning. And the time was better used following the kids and going to gym with them than cutting out cardboard or whatever… I think there’s a lot to learn.
Because in all of the practicums you’re placed in a classroom and you’re expected to shadow the teacher. But I feel like you should more be expected to shadow the kids. That’s who you’re learning from. I think that would probably be huge learning for everybody. I know it was for me. (2/6/2010)

Campbell felt that she learned far more from sacrificing that time to see what and how her pupils were learning across all aspects of the curriculum rather than spending her time, “cutting out cardboard”. (2/6/2010) Campbell’s comments here succinctly put into perspective what can change for the better in elementary practice teaching placements.

Unfortunately, not all student teachers had opportunities and experiences during practice teaching like Campbell and Joey. For example, Natasha’s observations of a specialist HPE teacher contrasted with the approaches to teaching HPE that were being advocated in the course at Windermere University.

She was very... kind of a military-type teacher with the gym class. Which I think was necessary. The kids really loved her. She was really strict but I think it was a respect, like, “she’s the tough gym teacher” kind of thing; so it was OK. They would come in, they would sit in lines, in rows. They knew exactly where to go, they were always in their gym uniform. (28/1/2010)

Natasha felt this teacher was an effective classroom manager and although she described the pupils liking this teacher, several student teachers (e.g., Ralph and Jane) spoke in Chapter Four of the negative impact that the “drill-sergeant” approach to teaching HPE can have on pupils’ experiences.

Other student teachers were not able to observe HPE specialists but observed the classroom teacher teach HPE. For example, Jane observed her associate teacher teaching HPE, however, she noted that there was little planning, assessing, or reflecting going into the HPE lessons. Andrew and Julia described the attitudes that their associate teachers held about teaching HPE and explained how these attitudes shaped teaching practice. For example, Andrew described an interaction he had with his associate teacher:
She actually didn’t do [HPE]. I did hear her say to the class sort of facetiously: “And you know how much I love HPE”. So it was clear that she didn’t really have an interest in it. And what she would do normally is she would just give the kids balls and have them play whatever they wanted to play. So there wasn’t any real instruction or organization. (7/6/2010)

In several cases, student teachers were asked to teach HPE to the class because the associate teachers disliked doing it themselves. While this provided, for example, Andrew and Julia, with opportunities to try practice teaching HPE, these opportunities did not allow them to receive informed and critical feedback on their lesson planning, their instruction, or their assessment practices in HPE. Andrew faced this situation in both his first and second practice teaching placements, and he suggested including a period of observing a specialist teaching HPE as part of the practice teaching experience. He explained some of the benefits he felt such an opportunity would provide:

I think that would definitely be helpful. It’s the kind of thing that student teachers… maybe some of them would complain. But it would be a learning opportunity undoubtedly. Whether it be designing an HPE lesson or whether it would be observing and writing reflections on the HPE classes that have been observed. (18/1/2010)

For those student teachers who were able to observe HPE being taught either by a specialist or a classroom teacher, they had mixed responses to the benefits of the observation. For example, Campbell and Joey found it particularly useful and were able to think about how they would take aspects of what they had observed to use in their own practice, especially explaining why they were doing the activities they were doing. Others, such as Jane and Ralph, felt that they got very little from the observations, except perhaps learning what they would not do. Such learning opportunities are far from beneficial, for as Darling-Hammond (2006b) suggests: “It is impossible to teach people how to teach powerfully by asking them to imagine what they have never seen or to suggest they ‘do the opposite’ of what they have observed in the classroom” (p. 308).
As well as observing experienced teachers teaching quality programs, another essential aspect of an effective practice teaching experience is providing student teachers with opportunities to try teaching lessons themselves. In the following section I describe the experiences of those student teachers who were able to try teaching HPE.

6.2.2.2 Attempting to teach HPE

Several student teachers were provided with opportunities to try teaching HPE during their practice teaching placements. These experiences gave student teachers insight into the challenges of teaching pupils in the gymnasium or playground; environments that are different to a regular classroom. As explained earlier, several student teachers did not teach HPE as such but instead used their experiences teaching DPA or coaching extra-curricular sports teams to inform their thoughts about teaching HPE. For example, Ralph viewed his experiences teaching DPA as a graduating step toward teaching HPE. That is, he felt that once he became comfortable teaching DPA in classroom settings, that he could then progress to teaching HPE in the gymnasium or playground.

Of those student teachers who were able to try teaching HPE, the experiences of Ralph and Hailey provide useful insight into the benefits of such experiences for elementary student teachers. In his second placement, Ralph taught some HPE lessons, focusing on territorial games such as soccer and basketball. While he found preparing HPE lessons easier than for many other subjects, he also described some of the challenges he faced in implementing his lessons:

All you really needed was one idea of a game that fit one expectation (and there were so few expectations) and after that, as long as they had the basics, they would play for hours if you let them. I did make the effort to make sure that it was not competitive, so they had a lot of fun playing with each other. What mattered was that they did it. I didn’t want to be a drill-sergeant; as long as they got it, then that was enough. Sometimes the kids could be hard to control in class but that was true everywhere. When they were “hyper” in gym I found that I had to get them to sit down in order to give them instructions otherwise they were just too “hyper” and everything would go over their heads. But they sit down and their pulse rate went down. And that’s really a no-win situation… Including people was really not that hard. And it amused me just how much the kids were ready to move their
bodies and to run and play and have some fun in it. They almost didn’t know that they were doing class-work. (26/4/2010)

Ralph’s experience teaching HPE is interesting because it contrasts so distinctly from his prior HPE experience as a school pupil. Indeed, he used his experiences during the apprenticeship of observation to good effect in that these helped him think of the drill-sergeant HPE teacher that he did not want to become. Although he found HPE easier to plan than other subjects because he felt that there fewer expectations in the provincial HPE curriculum, he described several difficulties he faced in managing the class in a different setting and with different educational goals. One shortcoming of Ralph’s experience teaching HPE was that he felt restricted in what he actually taught based on his associate teacher’s plans:

Unfortunately I didn’t have a lot of say in it actually because my associate teacher had already decided in advance which of the expectations were going to be covered and in which term… I had hoped to do a little more in terms of the aboriginal dancing or pioneer games but nothing really came of that. (26/4/2010)

Ralph expressed disappointment in not being able to experiment with interpreting the HPE curriculum more broadly; however, this is a tension that is difficult to overcome in the context of practice teaching. A balance needs to be considered when encouraging student teachers to be innovative and to develop their practice because this occurs in practicing teachers’ classrooms; teachers who have had their own goals, plans, and routines in place for several months. Alternatively, Andrew described being given complete control during HPE but he felt he would have liked more structure and guidance to help him navigate the HPE curriculum.

Hailey described a particularly constructive experience during her second placement where she was able to receive feedback on her planning, instruction, and assessment from an HPE specialist:

I gave her the lesson and she actually helped me see how I could simplify it. For example, when we were doing it in our class at Windermere, we had three centres or stations going at the same time, so we were split into three groups: one group was doing the shooting, one group was dribbling around the cones, and one group
was doing the chest passes. So she said: “Well, why don’t we have them all do the same thing; that way it’s easier. You’re containing them in one area and they are all doing the same thing. So it’s easier to track and monitor them”. So that helped. She was able to watch them and make sure that nobody was goofing off or whatever. Because it is really hard – even with 18 kids – which is not as many as you can get in later grades. It’s still hard to watch them all and make sure that they’re not bumping into each other or endangering one another in some way. Because anything could happen, right? So it helped. She didn’t really have to say much or do anything, she just told me: “OK, if you want them to stop, you blow the whistle once”; that was her signal. So I had to get them to stop a couple of times and they were really good at that. She was more there as moral support and because she had to be there. But I would say that it definitely helped that she was there. I could probably do it even if she hadn't been there but it would be a lot harder to manage. (27/4/2010)

The lesson that Hailey described was one that she had experienced during the HPE course at Windermere University. This meant that she had a draft of the lesson plan prior to her practice teaching placement and already had in her mind a vision of how it would look and run in the gymnasium. However, consulting with the HPE specialist before the lesson allowed her to modify aspects that addressed: (i) the pupils’ skill levels, and (ii) efficient classroom management. Hailey also acknowledged that having the HPE specialist in the class helped with managing the number of pupils. While Hailey felt that overall the lesson was successful, she also felt that she may have benefited from being able to observe a class before she tried teaching it herself. This would have allowed her to get a sense of the routines the teacher had in place as well as logistical issues of teaching in the gym.

Campbell also spoke of several unanticipated issues that she faced when attempting to teach HPE during her second practice teaching placement. Note that Campbell faced these challenges even after having extensive opportunities to observe a specialist teaching:

It took some getting used to. One, because in the gym, it was really hard to project my voice. It was a whole different classroom management issue and you don’t want to be as rigid. As long as they’re being safe, so it was sort of, something to
wrap my head around… it was different. In terms of comfort level, I did get increasingly more comfortable as I developed strategies and watched what the teacher did and emulated those. I feel like if I had have had more time and I guess more of a role, a more direct role, the comfort would have come a little faster. (2/6/2010)

Campbell’s experience is useful to think about developing “effective” practice teaching experiences, particularly given her extensive opportunities to observe an HPE specialist teaching (as described in section 6.2.2.1). For instance, Campbell’s experience suggests that observing strong teachers is not enough and that student teachers must also be provided with extensive opportunities to try teaching themselves. As Campbell suggests, she would have felt more comfortable teaching HPE if she had been provided with more opportunities to teach. Ralph also felt that during his second practice teaching placement he was provided with too few opportunities to try teaching HPE and as a result, his enthusiasm about the subject had waned toward the end of practice teaching. This suggests that student teachers require a degree of balance in the extent to which they observe and teach in the practice teaching experience. If one is provided without the other, it may be that the student teacher does not gain the most that can be learned from such experiences.

6.2.3 Summary of school experiences

Student teachers’ school experiences were categorized as those that addressed the HPE curriculum and those that addressed teaching HPE. When describing their experiences of the HPE curriculum during their practice teaching placements, many student teachers assumed that teaching DPA or extra-curricular sport counted as HPE. As such, HPE was seen by some as a time when pupils could “blow-off steam”, however, others came to see HPE as an opportunity to learn about their bodies and leading a healthy lifestyle. Furthermore, while most student teachers tended to value HPE, they felt that their associate teachers and the schools in which they were placed often held a differing opinion. Evidence for these claims stemmed from HPE instructional time being taken away from pupils due to other curricular and extra-curricular requirements, as well as some associate teachers making little effort to plan, instruct, and assess according to the expectations outlined in the provincial HPE curriculum.
Several student teachers had opportunities to observe HPE specialist teachers or were able to try teaching HPE lessons themselves. However, few were able to experience both elements together; something that is crucial if student teachers are to get the greatest benefit of the practice teaching experience. Thus, rather than observing strong practice and then practicing teaching and receiving feedback on their planning, instruction, and assessment of pupil learning, student teachers were often faced with an “either/or” proposition. That is, student teachers seemed either to observe HPE being taught or they taught it themselves; there were very few instances where both occurred.

### 6.3 Chapter summary

In this chapter student teachers experiences from their practice teaching placements were described and analyzed. Using Richardson’s (1996) categories of experience as a heuristic, these experiences were organized under the main section headings of personal experiences and school experiences, the latter of which included experiences of HPE curriculum and HPE teaching, respectively.

Student teachers’ physical identities emerged as a strong and influential component of their personal experiences and the labels that student teachers did and did not give themselves reflected how they saw themselves as teachers of HPE. For example, the degree to which individuals saw themselves as athletic influenced the extent to which they felt comfortable and confident teaching HPE. However, two student teachers in particular, Julia and Jane, were able to draw from other aspects of their identities to locate themselves in the landscape of HPE. Student teachers’ school experiences reflected much of what has previously been reported in the literature. For example, many student teachers viewed HPE as valuable because it provided pupils with opportunities to have a break from the regular school day; HPE was readily taken away from pupils for various reasons and it was not often considered a place where valuable learning occurred. Subsequently, little effort went into associate teachers’ modeling of planning, instructing, or assessing pupils’ learning in HPE. While some student teachers were able to observe specialist HPE teachers, few were able to obtain feedback from these teachers on their beginning attempts at teaching HPE. Such opportunities were often given because the associate teacher did not want to teach HPE.
This analysis suggests that for several of the student teachers in this research, the practice teaching experience contributed to “washing out” (Zeichner & Tabachnick, 1981) the effects of the university-based HPE course. However, there were several instances where student teachers experienced practice teaching placements that were closer to Darling-Hammond’s (2006a; 2006b) observations of exemplary placements, where student teachers have opportunities to observe expert teachers in practice and then are able to try planning and teaching lessons themselves.

While several patterns emerged in the experiences of the student teachers studied, there were some very different experiences and the way that student teachers used these experiences to reflect on and inform their future HPE teaching practices. In the following chapter, I synthesize several elements of the previous three chapters to analyze change that occurred from the beginning to the end of the pre-service teacher education in student teachers’ experiences of HPE.
Chapter 7
Analysis of Change

Introduction
In this chapter I analyze the extent to which participants in this research experienced change during the pre-service health and physical education (HPE) teacher education program at Windermere University. While the findings presented in the previous three chapters (Chapters Four to Six) have considered student teachers’ experiences during the program, the focus in this chapter is directed more toward the products or outcomes of the program. As such, it is my intent to primarily address the fourth research question, which is: What factors (if any) cause changes in the views, approaches, and practices of elementary student teachers toward HPE and teaching HPE?

I present findings from analysis of both quantitative and qualitative data to make claims about the extent of change that student teachers experienced and the factors that influenced any change. Specifically, I compared student teachers’ responses to the survey (Faulkner et al., 2004) from the beginning (Sept. 2009) and end of the teacher education program (Apr. 2010) to determine degrees of change in the sample, and to explore the existence of statistically significant differences ($p$ values) and effect sizes (Cohen’s $d$). Inferential statistics such as repeated measures $t$-tests were used to infer the extent of change in the two subscales: (a) identity for teaching HPE and (b) self-efficacy for overcoming limiting factors to teaching HPE. Analysis of variance (ANOVA) was used to determine differences in changes between groups (e.g., according to student teacher gender and teaching focus). Analysis of quantitative data was triangulated with analysis of interview data gathered at the beginning and end of the program. Interview data added deeper insight into the reasons why change may or may not have occurred, as well as enabling specific factors that led to change to be identified.

Based on Babbie’s (2007) criteria there were high response rates to both the pre-test and post-test surveys. As reported in Chapter Three, the pre-test survey administered in September, 2009 was completed by 308 out of 376 student teachers (82%). The sample consisted of 248 female (80.5%) and 60 male (19.5%) elementary student teachers. According to grade level specializations, 205 student teachers (66.6%) were studying to become certified in the P/J grades, while 103 student teachers (33.4%) were studying to become certified in the J/I grades.
In April, 2010, the post-test survey was administered to a sample of student teachers as surveyed in September, 2009; student teachers represented five of the eight cohorts in the B.Ed. program. Again, there was a strong response rate (Babbie, 2007) with 285 out of 346 (83%) student teachers completing the survey. According to gender and grade level specialization, the make-up of student teachers who completed the post-test survey was similar to the make-up who completed the pre-test survey: 228 female (80.0 %) and 57 male (20.0 %) elementary student teachers, 180 (63.2%) of whom were studying to become certified in the P/J grades and 105 (36.8%) who were studying to become certified in the J/I grades.

Repeated measures statistical analysis offers a robust way of considering change both at the individual and group level (Field, 2009). In using this type of analysis only those student teachers who gave responses in both pre- and post-test conditions could be included in the analysis. As such, survey responses from 244 student teachers who completed the survey in September, 2009 and in April, 2010 were included in the statistical analysis provided in this chapter.

The chapter is organized in two main sections that reflect the subscales represented in the survey (Faulkner et al., 2004). In the first section I present data that addresses change in student teachers’ identity for teaching HPE. In the second section, I analyze data that considers the extent to which student teachers felt they were able to overcome common limiting factors to teaching HPE.

### 7.1 Identity for teaching HPE

In both September (pre-test) and April (post-test), participants were asked to indicate the extent to which they agreed with four statements that reflected their identity for teaching HPE. The reliability coefficients for pre- and post-test responses indicated internal consistency ($\alpha = .81$ and .79, respectively), meaning combined scores could be used for the four items measuring identity for teaching HPE. Items were scored on a 7-point scale, from 0 (strongly disagree) to 6 (strongly agree).

Overall, when pre- and post-test responses were compared there was a statistically significant difference ($p < .001$, Cohen’s $d = .34$) in student teachers’ identity for teaching HPE. A paired-sample $t$-test showed that from a quantitative perspective there was a positive and significant change in identity for teaching HPE from pre-test ($M = 4.37$) to post-test ($M = 4.64$, $t$
These findings suggest that the pre-service HPE course and practice teaching experiences challenged student teachers’ prior experiences of HPE in terms of both content and pedagogy. According to survey data, student teachers displayed an increase in the extent to which they saw themselves as teachers of HPE; as discussed in Chapter Four, prior to taking the pre-service HPE course, several student teachers felt that they would be expected to teach HPE in a similar way that it was taught to them (Lortie, 1975; Loughran, 2006). However, exposure to a broader range of HPE content and the ways that content could be taught (that is, the pedagogies that could be used to teach content) during the HPE course may have helped student teachers overcome some of the negative images that they associated with teaching HPE.

Survey data was triangulated with interview data to provide further evidence of these changes. For example, Andrew acknowledged both a change in his views about the content of HPE and the identities that a teacher “should have” in order to teach HPE:

I [realized] that HPE is not just about sports-specific skills but that it can be something much more holistic; and that also includes dimensions that have to do with mind and with emotion and with communication and with respect and other layers. I also realize that I had maybe an idea in my mind of what an HPE teacher was supposed to be like and what I realized throughout the year was that really you can’t... it’s kind of a silly thing to have those stereotypes of what an HPE teacher is supposed to be like and that ultimately as a teacher it could be anybody; anybody who wants to work with kids and who is interested in their education and different aspects of their education. And so you don’t necessarily have to be an athlete or someone who has played on sports teams to guide students through it.

(7/6/2010)

Ralph also acknowledged how he thought his embodied identity would act as a barrier that would prevent him from teaching HPE well. In part, this was due to his negative prior experiences of HPE and HPE teachers that were dominated by a “drill-sergeant” approach to teaching. However, he felt that he was able to overcome this to a certain extent, by re-framing how he thought of success and/or achievement in HPE:
I thought it would be hard; in part because I’ve never been a jock, I’ve always been more of a sedentary, academic type. But as long as people try and even if they need a rest, what really matters is the effort… So in some ways it’s quite different and it wasn’t the nightmare I thought it would be. (26/4/2010)

Similarly, Joey spoke of how he came to see himself as a teacher in the broad sense (that is, as an elementary classroom teacher) and also as a teacher of HPE. In particular, he spoke of how the pre-service HPE course and two practice teaching placement enabled him to see the broader health benefits of HPE. In September, Joey’s perspectives about what was involved in being a teacher of HPE were derived from his experiences of HPE as a pupil, which were dominated by competitive sports taught in the traditional manner (that is, a games lesson format that roughly followed a skill-drill-game progression). As reported in Chapter Four (section 4.3.1.2), he said:

I don’t want to be a gym teacher, just as I do not want to be a math teacher. I think that part of being a good teacher is to have a strong background knowledge in what you're teaching. And I don’t feel that I’m well educated in all aspects of HPE. I’m better equipped at what I would call, and unfortunately, what I think society labels as, a fluffier type of health education. That being more dance-related, movement-related activities as well as things like peer pressure that are more mental work, as opposed to skill at basketball, soccer, dodge-ball, what have you. (22/9/2009)

However, in his third interview in April, Joey’s outlook on the possibility of being a teacher of HPE (if included in his role as a classroom teacher) had changed: He commented:

It’s funny because at the start of the year when we first interviewed, I had ideas about how I would implement a HPE curriculum but I don’t remember if I told you I wanted to teach it or not? I think I was kind of like, if I do, I do. Now I really wouldn’t mind teaching it. I think I’m well prepared to teach it in a way that is inclusive, is encouraging of healthy living habits, and can be meaningful to
my students. So I think the course here has prepared me well for teaching it and I would not be unhappy teaching it. (21/4/2010)

As well as broadening his perspectives of the content of HPE curriculum, Joey was also exposed to different pedagogies for teaching HPE. Joey felt that these pedagogies provided him with ways to teach HPE in inclusive ways that are meaningful to him and his pupils. Making HPE personally meaningful was acknowledged by several student teachers as a key aspect of any change they experienced. For example, Julia acknowledged that from her prior HPE experiences she had struggled to make connections from HPE to her own life. But the HPE course at Windermere allowed her to make several new connections:

I hadn’t previously seen that you could make so many connections outside of, you know, volleyball. It made me see ways of taking what I perceived as negative from my school days and envisioning ways of using it to good advantage, and making it really fun and inclusive. So certainly, yes, my perspective has changed. (8/5/2010)

Hailey also felt that her perspectives about HPE had been broadened; both in the way she thought of what HPE activities entailed (that is, a shift beyond competitive sports) and in the ways she thought pupils felt about the subject:

[My perspective has] changed for sure. Again, I feel like there’s a much broader repertoire of strategies and types of games you can play. It’s not all competitive, where before I always thought of just the competitive sports in HPE. Now I can see there’s so many kinds of games and activities you can do with the kids, where they don’t necessarily feel like they have to win. They can play together and have fun. I guess just being more exposed to the kids and getting a sense for how they feel about HPE. I find that most of them love it; it’s their favourite subject. So I don’t think it’s going to be a challenge to get them to participate for the most part. Whereas before maybe I had the perception that HPE may not be enjoyable to a lot of students. I don’t feel that any more. I think it’s going to be rather easy to get them engaged. The whole nature of the program is a lot broader than I envisioned
at first. There are just a lot of different things you can do; not just sports, not just competitive sports. (5/3/2010)

Jane did not feel that her perspectives about the health benefits of HPE had changed substantially since entering the teacher education program; however, she was one of the few participants who had completed an undergraduate degree in kinesiology. Furthermore, she also had qualifications in homeopathy and her husband was an elementary HPE teacher. She credited these factors as influencing her thoughts about HPE prior to entering the teacher education program, and therefore, change could not necessarily be attributed to the HPE course. Jane said:

I don’t think it’s changed too much. Going in with my background in kinesiology and with my background in homeopathy and that holistic [side of things]… Yeah, and Phil 21 being an HPE teacher. No, it really hasn’t changed too much. I’ve taken and learned different strategies and resources through [the] class but my perspective on what I would want to teach the students hasn’t. Because I think it’s really good and it really hasn’t changed too much. That idea of healthy lifestyle and healthy bodies, and good body image, and good self-esteem, are all things I want to come out the other end. And that’s what I had going into teaching. (21/4/2010)

While the data suggests that participants became more health conscious during the year, Joey highlighted that his own health had deteriorated due to the time commitments required to complete the teacher education program successfully, particularly the practice teaching placements. He said:

We don’t talk about teacher health… like teacher health in our HPE learning. In this teacher education program, where is the time that a teacher has to take care of themselves physically? It’s poor modeling really, when you [talk] to a student [about] heart health or what have you and you don’t do it yourself. I don’t do those things any more. I don’t have time. Facilities are far away from where I live and even if they were next door, I still think that I had too much marking and

21 Pseudonym
lesson planning to do. What are some ways that teachers can keep themselves physically active and physically healthy throughout their career? And especially in their teacher education program because we’re not. It’s something that I hear all the time. You could go on Facebook and say like “I should really work out but I’m going to sleep”... Whatever it is, my personal physical activity has changed so much that I don’t even know how to kick-start back to where it was any more because I feel so far gone. (26/4/2010)

While Joey claimed he learned how to teach aspects of health and physical activity to his pupils in the HPE program, his own health suffered. The demands placed on student teachers during their pre-service program and the subsequent impact on their health was an unexpected finding from the interviews; however, such revelations have profound implications for teacher education programs and for HPE courses within those programs. Elsewhere, researchers have found that student teachers are exposed to a wide variety of stressors during their pre-service program, particularly during practice teaching (Admiraal, Korthagen & Wubbels, 2000; Gardner, 2010; Montgomery & Rupp, 2005). Not only do student teachers have to deal with the same stressors faced by practicing teachers, such as motivating pupils, pupil behaviour, and managing a heavy work-load, they must also deal with the pressures that come along with their teaching being observed, assessed, and evaluated on a daily basis. In teaching student teachers about HPE, teacher educators also need to provide student teachers with feasible ways to manage their own health in the teacher education program and beyond.

7.1.1 Gender and teaching focus effects

Quantitative identity data were analyzed further using a one-way repeated measures ANOVA test to determine whether differences existed in the degree of change experienced by student teachers according to (i) gender and (ii) teaching focus (that is, between student teachers in the P/J and J/I cohorts). Wilks’s lambda test indicated that change in identity for teaching PE was not significantly affected by gender, $F(1, 241) = 2.05, p > .05$, nor was it significantly affected by teaching focus, $F(1, 239) = 1.10, p > .05$. Therefore, while there was a significant change in identity for teaching HPE within the entire sample, this change did not differ significantly according to gender or teaching focus. Indeed, it would have perhaps been of
concern if there were differences according to either variable because this would have suggested that one group of student teachers (according to gender and/or teaching focus) would have received more benefits from the program than others. As it stands, each group of student teachers experienced similar amounts of change.

7.2 Self-efficacy for overcoming limiting factors to teaching HPE

Respondents were asked how confident they were in overcoming several limiting factors to teaching HPE in pre- (September) and post-test (April). The seven items used as indicators for self-efficacy to overcome limiting factors to teaching HPE provided an internally consistent measure in both pre- (α = .80) and post-test (α = .88). Therefore, combined scores for the construct could be used. The limiting factors listed were those most commonly identified in prior studies as researched by Faulkner et al. (2004). Items were scored on a 5-point scale from 0 (very unconfident) to 4 (very confident).

There was no significant difference in student teachers’ overall self-efficacy for overcoming limiting factors to teaching HPE from pre-test to post-test at \( p < .05 \) (Pre-test \( M = 2.80 \), Post-test \( M = 2.88 \), \( t (209) = 1.16, p > .05 \)). While there were small positive increases in student teachers’ self-efficacy for overcoming all but one of the limiting factors to teaching PE (self-efficacy for overcoming bad weather to teach HPE was 3.00 in both pre- and post-test conditions), none of these changes were statistically significant at \( p < .05 \).

Qualitative data provided deeper insight into student teachers’ self-efficacy for overcoming limiting factors to teaching HPE. Campbell summarized how her confidence for teaching HPE changed from the beginning to the end of the teacher education program, largely due to her experiences in the practice teaching placements. Specifically, she spoke of being able to locate resources and to deal with the demands of HPE teaching practice:

I’m more confident now. I’m not 100% confident by any means but I’m not 100% confident to teach my own class either. If I had to do it, I wouldn’t be afraid. I would know I had a lot of work to do and I think that's really all I can ask for at this point, which is the same if I was asked to teach a second grade class… I don’t feel as helpless as I did before which is good. I feel like my experience working with kids in the gym is what mostly prepared me for the future if I do have to
[teach HPE]... So I think now I’m not scared of having to do that. I feel like I have some strategies and I feel like I know where to look. Maybe that’s what helped me the most was sort of looking at resources and where to go to get that information. But the stuff that I did working with the kids and the experiences that I had and the strategies that I built on my own have prepared me enough. I mean, it would take a lot of work before I’m ready to have a full time gym class but I think if I were teaching my own class gym, I could do it. (2/6/2010)

While Campbell reported feeling more confident, like several of the other interview participants, she did say that if she were required to teach HPE as a classroom teacher that a “lot of work would be involved” that would require going into far more depth than was allowed in the brief HPE course at Windermere University. She also acknowledged that if she had had more opportunities to teach HPE and had an associate teacher who provided critical feedback on her teaching that her confidence would have improved both to a larger degree and faster.

Hailey stated that she felt slightly more confident to teach HPE as a result of the HPE teacher education course, particularly because she had been provided with resources that would help her plan and implement HPE lessons:

I think I could teach any one of the subjects that I need to teach and I do feel more prepared to do it… Actually I feel like with HPE it would be less preparation because there are so many lessons that I’ve already found and I have at my disposal that I think would be easy. Provided that I have the equipment and the resources at the school. It would be pretty easy to take those lessons and just teach them. So with HPE I feel like I’m more prepared than I was before, for sure. (27/4/2010)

However, Hailey also revealed that she felt somewhat uncomfortable teaching some aspects of HPE because she lacked a positive teaching identity, particularly when it came to teaching sports-specific skills. She said:

I think the perception that most teachers have – and I still have it to some extent – is that you have to be good at sport to teach them, to teach HPE; that you have to
be able to shoot a basket or do a lay-up – you know, accuracy, strength, what have you. You need to be athletic – a jock, so to speak – in order to teach HPE. I think that perception even still lingers with me, although, obviously not to the same extent as before. I still wouldn’t be that confident with it, because I’m not that athletic. I lack that knowledge of, what is it, for example, when you’re teaching floor hockey, how do you teach them to score? What are the techniques? What are they even called? “Deeking”, or whatever, all those terms – I’m not familiar with them. So I kind of feel like I have to learn them before I can properly teach them.

(27/4/2010)

Hailey’s comments above suggest that while there was improvement in her confidence and identity for teaching HPE, she has not yet reached a point where she can say that she is confident or does see herself as a teacher of HPE. Thus, while the entire sample showed an increase in the extent to which they saw themselves as a teacher of HPE (as described in section 7.1), the increase does not necessarily mean that they do see themselves in the role.

7.3 Chapter summary

In considering the research on pre-service HPE teacher education, programs have been criticized for, among other things, being too brief and not providing student teachers with sufficient pedagogical and content knowledge needed to teach quality PE programs (DeCorby et al., 2005; Morgan & Hansen, 2008b). These deficiencies have led to classroom teachers looking back on their pre-service HPE programs as negative and/or inadequate, leading to lack of comfort and confidence to teach HPE (Morgan & Bourke, 2008; Morgan & Hansen, 2007). As such, I was interested in exploring the extent to which positive change in regards to HPE could occur during a pre-service teacher education program.

According to the survey data gathered here, elementary student teachers showed significant and positive changes in identity for teaching HPE during a one-year teacher education program. These findings were corroborated by interview data with a purposive sample of participants. Changes in self-efficacy for teaching HPE (specifically in terms of overcoming limiting factors to teaching HPE) were not statistically significant. Interview data supported that gathered in surveys, with several teachers reporting slight increases in their confidence to teach
HPE; however, they would still prefer “that someone else did it”, supporting findings by Xiang et al. (2002).

Close analysis of interview data suggests that for several student teachers (such as Andrew and Hailey), any change in confidence for teaching HPE was mediated by their identity for teaching HPE. While they felt more confident and comfortable in teaching HPE, interview data suggested that seeing themselves as athletic or sporty individuals acted as the most salient limiting factor to “becoming” a teacher of HPE. Thus, having student teachers become aware of and develop their teaching identity for teaching HPE may help them in overcoming limiting factors or other barriers to teaching HPE that may have been established during their years in elementary and secondary schools (Morgan & Bourke, 2008). Given the importance of developing a positive teaching identity (Beauchamp & Thomas, 2009; Beijaard et al., 2004; Britzman, 2003; Bullough, 1997; Kosnik & Beck, 2009a), the steps that student teachers can make in pre-service teacher education toward forming a positive identity as a teacher of HPE may be small, as indicated in this chapter, but they are essential.

In the following chapter I summarize the key findings presented in Chapters Four to Seven. I also discuss implications for pre-service HPE teacher education in light of the findings and offer suggestions for future research on elementary classroom teachers and HPE.
Chapter 8
Conclusions and Implications

There was one [of the readings we had] which was grading the various provinces by how they did HPE. Ontario as I remember got (I think) an “F” in HPE. I remember my instructor saying: “This is why we need to push more HPE into the curriculum”… I’m thinking, what it should be is not more HPE but to teach it smarter and to better engage the students.

Ralph (25/1/2010)

Introduction
In Chapter One I outlined my reasons for pursuing the line of inquiry that has shaped this dissertation. I chose to study the health and physical education (HPE), and physical activity experiences of elementary student teachers because the majority of elementary HPE classes in Ontario are taught by regular classroom teachers rather than by HPE specialists (Faulkner et al., 2008). This was identified as a problem because researchers have found that HPE specialists tend to teach better HPE programs than elementary classroom teachers (Constantinides et al., 2009; DeCorby et al., 2005; Graber et al., 2008; Mandigo et al., 2004; McKenzie et al., 1993; Sallis et al., 1997; Tsangaridou, 2008). When classroom teachers do teach HPE, the quality of their programs are influenced by institutional and teacher-related factors (Morgan & Hansen, 2008b). I stated earlier in the dissertation that reform efforts aimed at changing teacher-related factors may be the most effective means of improving elementary HPE programs because teachers have more control over changing these factors or barriers rather than solving institutional factors. To highlight the importance of addressing teacher-related factors, school and pre-service HPE experiences have been found to be statistically significant predictors of elementary classroom teachers’ confidence to teach HPE and the quality of their HPE programs (Morgan & Bourke, 2008; Morgan & Hansen, 2008a). Subsequently, throughout this dissertation I have sought to improve our understanding of the nature of elementary student teachers’ HPE experiences in order to improve pre-service HPE programs and to determine whether, and to what extent, change in teacher-related factors was plausible and possible.
As outlined in the data analysis chapters (Chapters Four to Seven), there were many and varied influences that shaped student teachers’ HPE experiences in schools and in pre-service teacher education. Based on the analyses that have been presented in this dissertation, it is clear that there is a need for elementary student teachers to view HPE and what is involved in teaching HPE very differently from the ways they did as school pupils. Furthermore, there is also a need for student teachers to learn to teach HPE in ways that are, to use Ralph’s words presented in the quote above, “smarter” and that promote learning and enjoyment for all pupils, not just those who already enjoy participating in physical activities. This requires student teachers to learn to teach HPE in ways that make the subject matter personally meaningful, enjoyable, and relevant to all learners. It also requires school-based HPE and university-based HPE teacher education to frame HPE in such a way that it challenges many peoples’ prior assumptions about the purposes of HPE, and what teaching HPE means and involves.

In this final chapter I draw together the main findings of this dissertation research to identify implications for HPE at various levels. The chapter is organized into four main sections. In the first section I summarize the main findings about the nature and extent of student teachers’ experiences of HPE prior to and during the pre-service teacher education program. In the second section and its sub-sections I identify implications and offer recommendations for the practice and study of HPE. Specifically, I consider implications for: school HPE; pre-service HPE teacher education; out-of-school physical activity programs; policy concerning the hiring of HPE specialist teachers in elementary schools; and research on elementary classroom teachers and HPE. In the third section I identify limitations of the research. In the fourth and final section I reflect on the research to highlight how my practice as an HPE teacher educator has changed as a result of completing this dissertation.

8.1 Summary of the main findings

In this section I briefly summarize the four main findings from this dissertation. In doing so I position the findings within the literature and describe how these findings contribute to knowledge of elementary student teachers’ experiences of learning to teach HPE. The main findings directly address the research questions detailed in Chapter One and follow the sequence of the four analysis chapters. The four main findings are:
(1) Student teachers’ embodied identities had a profound influence on their experiences of HPE and physical activity. Further, their embodied identities were influenced by prior experiences of HPE and physical activity.

(2) Student teachers’ experiences of the pre-service HPE course were mostly positive and broadened their views of HPE and provided them with some basic strategies for teaching elementary HPE.

(3) The practice teaching experience provided some student teachers with opportunities to either observe or to try teaching HPE; few had opportunities to do both.

(4) There was a positive and statistically significant change in student teachers’ identities as teachers of HPE from the beginning to the end of the pre-service teacher education program.

8.1.1 Embodied identity and prior HPE experiences

Student teachers came to the pre-service teacher education program at Windermere University with a wide variety of prior experiences of HPE and physical activity, and from these experiences they brought varying degrees of comfort and confidence with being physically active. The sample of student teachers who were surveyed ($n = 308$) revealed that, on average, they somewhat enjoyed HPE during elementary and high school, contrasting with previous findings suggesting that elementary classroom teachers tend to think of their HPE experiences as school pupils negatively (DeCorby et al. 2005; Dwyer et al. 2008; Faulkner et al., 2008; Morgan & Bourke, 2008; Morgan & Hansen, 2007; 2008a; 2008b; Xiang et al., 2002).

An important finding from this research was that many of the student teachers who were interviewed had a fairly limited view of health, in that they were likely to link being healthy to being of a desirable body size and shape; often one that was slender or “athletic”. Several references were made to negative experiences of HPE that concerned self-consciousness regarding participants’ body size/shape and how their bodies moved in the gymnasium. Student teachers’ self-consciousness was shaped both by their own perceptions of how their bodies looked and moved in HPE and physical activity, as well as by their perceptions of how others viewed their bodies in these contexts. The labels that student teachers gave or withheld illuminated their embodied identities as physically active people (for example, “not being good at sports”, “not athletic”, “athletes”, and “overweight”) and one student teacher, Natasha, made a connection between an individual’s physical competence and her or his body size/shape. A pre-
occupation on body size/shape has important implications for the ways student teachers think about the purposes of being healthy and approach learning to teach HPE. The analysis presented in Chapter Four suggested that student teachers’ embodied identities had a profound influence on their prior experiences of HPE and physical activity, and their embodied identities were profoundly influenced by prior experiences.

Not only did student teachers’ embodied identities shape their self-perceptions and self-images in the contexts of HPE and physical activity but they also influenced how student teachers interacted with the HPE curriculum and with their HPE teachers. For example, some student teachers who did not label or view themselves as athletic when they were school pupils often struggled to find aspects of the HPE curriculum meaningful or relevant (particularly those aspects that focused on sports and fitness testing). They also described finding it difficult to relate to their HPE teachers who they ascribed with physical identities different from their own. Moreover, the ways that some aspects of the HPE curriculum were offered to pupils further distanced them from the subject matter. For instance, due to the unique and public nature of participating or performing in HPE, student teachers described feeling “exposed” in HPE. Examples of how their exposure was reflected in the gymnasium included the revealing uniforms they were required to wear and the process of changing in and out of these uniforms in the changing rooms. Student teachers also reported feeling exposed or “on display” when participating in physical activities. They felt that because other class members could observe participation and performance, “everybody knew” (Natasha, 30/9/09) the extent to which each class member could successfully perform a task. Thus, from their experiences of HPE as school pupils, student teachers felt that HPE and physical activity were contexts where their peers could, either formally or informally, judge performances.

In summary, the nature of elementary student teachers’ prior experiences of HPE and physical activity provided them with certain ideas about the purposes of HPE and what teaching HPE might look like and/or involve. Importantly, many of these ideas reflected traditional, conservative approaches to teaching HPE that focused on developing a narrow set of skills and that catered to pupils who were already committed to a physically active lifestyle, such as those involved in extra-curricular sports. As Kirk (2010) has outlined, despite the intentions of many progressively minded physical educators, the discourse of physical education-as-sport maintains its dominance in most HPE programs around the world. This point of view was supported by student teachers’ prior HPE experiences as school pupils.
8.1.2 The HPE course and student teachers’ views of HPE

Although it was a brief and condensed component of their pre-service teacher education program, most student teachers’ experiences of the 12-hour HPE course at Windermere University helped to broaden their views about the purposes of HPE and what was involved in teaching HPE, particularly in terms of HPE curriculum. However, while the course allowed student teachers to learn about HPE concepts, strategies, or theories, it did not provide the opportunity for student teachers to learn about these elements of teaching HPE in any degree of depth. As such, what was learned in the pre-service course might be considered as a starting point for student teachers to begin a process of lifelong learning about teaching HPE and engaging in physical activity. It became clear from the interview data that the pre-service HPE teacher education course alone is not enough for student teachers to critically reflect on their prior experiences, begin to develop positive identities as teachers of HPE, nor to begin feeling completely comfortable and confident dealing with HPE subject matter and pedagogies.

For many student teachers, what and how they learned about teaching HPE at Windermere mostly stood in contrast to what and how they learned in HPE as school pupils. Based on their prior experiences described in Chapter Four, many student teachers thought that HPE consisted of little more than learning about and participating in a series of sports, and that “success” in HPE was restricted to those individuals who demonstrated physically active and athletic competencies and identities. However, the activities and structure of the pre-service HPE course enabled several student teachers to come to view HPE as consisting of a wide variety of activities that encouraged development of a broad range of skills and competencies across several domains (that is, physical, social, emotional, and cognitive). Furthermore, by using different pedagogical strategies the HPE teacher educators modeled inclusive HPE practices where all learners were encouraged to participate in and actively learn about the activities in class. By the end of the brief HPE course, many student teachers came to see that their teaching identities did have a place in HPE contexts.

For some student teachers the HPE course provided them with a sense of relief that they did not have to teach HPE in a way similar to how it was taught to them; a concern articulated by teachers many years ago in Lortie’s (1975) study but one that remains an enduring challenge for teacher education today (Darling-Hammond, 2006a; Hammerness et al., 2005; Loughran, 2006). For other student teachers HPE came to be viewed as an important part of a child’s education where opportunities could be provided for pupils to learn about, for example, their health, bodies,
emotions, and ways of interacting with others. In a sense, the pre-service HPE course disrupted some student teachers’ assumptions about HPE that they carried with them from the apprenticeship of observation (Lortie, 1975). Challenging student teachers’ prior beliefs about schooling has been highlighted as one of the major challenges faced by those involved in teacher education (Bullock, 2011; Darling-Hammond, 2006a; Hammerness et al., 2005; Kennedy, 1999; Korthagen et al., 2006; Lawson, 1983; Loughran, 2006; Schempp, 1989; Sugrue, 1996; Wideen et al., 1998; Zeichner & Gore, 1990); thus, in the brief amount of time student teachers had to learn about teaching HPE at Windermere, the HPE teacher educators appeared able to provide student teachers with experiences and learning situations to question, critique, and challenge their prior HPE experiences and assumptions about HPE.

Opportunities for elementary student teachers to challenge and critically reflect on their prior HPE experiences were described as essential by Morgan and Bourke (2008) and Tsangaridou (2002) because negative or inappropriate experiences of school HPE programs can lead student teachers to believe that they do not possess the required content knowledge to teach HPE; that teaching HPE is unimportant; and that teaching HPE is more of a supervisory rather than a teaching role. These factors contribute to what Crum (1993) and Morgan and Hansen (2008a) have described as a “non-teaching ideology”. Thus, the interview data reported in Chapter Five supported Morgan and Bourke’s (2008) recommendation about the necessity of critical reflection in pre-service teacher education, with several student teachers appearing to strongly challenge and critique their prior HPE experiences.

8.1.3 Practice teaching: An either/or experience

Given the importance of the practice teaching experience on student teachers’ development and their perceptions about learning to teach (Beck & Kosnik, 2000; 2002a; 2002b; Britzman, 2003; Brouwer & Korthagen, 2005; Darling-Hammond, 2006a; 2006b; Feiman-Nemser, 2008; Korthagen & Kessels, 1999; Wilson et al., 2002; Zeichner, 1996), analysis of interview data presented in Chapter Six suggested that few elementary student teachers experienced what could be described as exemplary practice teaching experiences in regards to HPE. According to Darling-Hammond (2006b), exemplary practice teaching experiences consist of extensive opportunities to engage in observing and practicing teaching under close supervision by an expert teacher. The expert teacher should be able to provide student teachers with constructive and critical feedback on their planning, instruction, and assessment of pupils.
Some student teachers had opportunities to observe specialist HPE teachers and their practice while other student teachers had opportunities to try teaching HPE. Student teachers reported benefits of both experiences; however, an important finding from this research is that there was little evidence that student teachers were able to observe an expert HPE practitioner and receive feedback from that expert on their developing practice. Research suggests that restricting student teachers to either observing or trying to teach limits their development (Darling-Hammond, 2006b). This finding has important implications for pre-service teacher education programs, particularly when the “wash-out effect” (Zeichner & Tabachnick, 1981) of school experience is considered. School experiences during practice teaching and the beginning years of teaching are thought to be extremely powerful in “undoing” positive and progressive transformation that can occur in campus-based coursework. Data analyzed and reported in Chapter Five indicated that many student teachers experienced positive change in terms of their views of HPE and HPE teaching following the HPE course. However, in Chapter Six student teachers reported seeing several negative or inappropriate practices during their practice teaching placements, such as: teachers who had little interest in teaching HPE; little evidence of rigorous planning, instruction, or assessment when HPE was taught by a classroom teacher; sports-focused HPE programs that were taught using a traditional (skill-drill-modified game) approach; several student teachers equating involvement in teaching DPA or extra-curricular sports as teaching HPE; and HPE being cancelled as a consequence of inappropriate pupil behaviour. These were practices that were mostly being challenged by HPE teacher educators during the campus-based course; however, the sustainability of positive change is threatened when student teachers do not see exemplary practice in their practice teaching placements (Darling-Hammond, 2006a). Therefore, elements of the “wash-out” concept (Zeichner & Tabachnick, 1981) were supported by data analyzed in this dissertation.

8.1.4 Developing an identity as a teacher of HPE

According to Jenkins (2008), identity is not a thing but a process of being and becoming. Quantitative and qualitative data analyzed in Chapter Seven suggested that during the period of the pre-service teacher education program many student teachers began to see themselves becoming teachers of HPE, thus beginning to develop a professional identity in this role. Comparison of pre- and post-test survey (Faulkner et al., 2004) data from 244 student teachers showed that there was a positive and statistically significant change in their identity for teaching
HPE from the beginning to the end of the pre-service program. In particular, the greatest changes occurred in the extent to which student teachers saw themselves as teachers of HPE and in the health benefits of the HPE curriculum.

Interview data generally supported quantitative findings, although nuances and individual differences in student teachers’ professional identity development were evident. For instance, following the HPE course and practice teaching placements, several student teachers came to feel that they did not have to identify as athletes or “sporty” individuals to teach HPE. This discovery stood in contrast to many of their perceptions from the beginning of their pre-service teacher education program. Some of these feelings may also be attributed to student teachers finding aspects of the HPE curriculum more personally meaningful or to seeing HPE teacher educators modeling instructional practices that were considered inclusive and/or progressive. Unfortunately, not all student teachers overcame their initial perceptions based on their prior experiences, with several feeling a tension that they needed to develop more sports-specific competence in order to believe that they could teach HPE well.

In summary, many student teachers came to feel more comfortable with the idea of teaching HPE than they had been when they entered the pre-service teacher education program; however, some would still prefer “if someone else did it”. As a group, student teachers took small but positive steps toward seeing themselves as teachers of HPE, yet these are only the first of many steps that need to be taken to ensure that better quality HPE programs are taught in elementary schools.

8.2 Implications of the research

The overarching purpose of the dissertation research was to explore the experiences of elementary student teachers as they learned to teach HPE. Based on the main findings it is clear that one of the most important aims for pre-service elementary HPE teacher education courses is to have student teachers view HPE and teaching HPE through very different lenses to those through which they viewed their HPE experiences as school pupils. From the main findings I believe that three main guidelines can assist how student teachers come to view and experience HPE differently. First, participants in HPE programs (that is, school pupils, student teachers, and so on) need to have a sense of belonging in the gym. With guidance from HPE teachers and teacher educators, participants in HPE programs need to begin constructing positive identities as
healthy, active individuals. Second, teachers of HPE should select and teach HPE subject matter that learners find personally meaningful, enjoyable, and relevant to their daily lives. Third, school-based HPE programs and university-based HPE teacher education programs need to frame HPE and construct HPE curricula in such a way that it challenges the many assumptions about the purposes of HPE, and what teaching HPE means and involves. In the following sections I use these three main ideas to focus on implications and recommendations for school-based HPE, pre-service HPE teacher education, out of school physical activity programs, HPE policy, and future research, respectively.

8.2.1 Implications for school HPE

School HPE curricula, the ways that the HPE curriculum was taught (or not taught in some cases), and who taught the HPE curriculum strongly influenced student teachers’ experiences of HPE from the time that they were pupils. Several factors emerged from the research that point toward areas that should be addressed in school HPE in order to improve how participants construct positive physical identities and to find meaning and relevance in HPE programs. These factors include: paying greater attention to the role of body image in HPE and physical activity contexts, the need to provide a balanced HPE program, the need for teachers to adopt inclusive approaches to teaching HPE, and the need for teachers to engage in ongoing in-service professional development (PD).

8.2.1.1 The role of body image in HPE

While concerns and issues related to body image are present in most K-12 HPE curricula, the degree to which student teachers’ prior experiences of HPE were mediated by their body image suggests that closer and more prolonged attention needs to paid to this issue. HPE occupies a unique place in the context of schools because pupils’ bodies are on display. This has important implications for how pupils develop their own understanding of how their bodies look and move as well as their perceptions of how others’ bodies look and move. As such, pupils construct strong images of themselves in relation to others (particularly in physical senses) in HPE.

In the recently revised Ontario HPE curriculum for grades 1-8 (Ministry of Education, 2010), discussion about body image is identified as being essential for both female and male
pupils, and it can directly impact upon an individual’s self-esteem. It is suggested that teaching about body image be approached primarily through the “Healthy Living” strand of the curriculum at about the time that pupils enter grade 6. The results of this research support the need for extensive discussion of body image for both female and male pupils; however, several factors should be taken into consideration when teaching about body image. First, it should be introduced to pupils (either directly or indirectly) earlier than grade 6. In a study of 2279 females who were aged 10-14 in Ontario, McVey, Tweed and Blackmore (2004) found that approximately 30% were dieting to lose weight. If the advice of preventative health models is to be heeded, then it is essential that learning about the problem occur several years before it is likely to occur. Thus, discussion of body image and self-esteem needs to occur at least by the time pupils are in grade 3. Second, the way that discussion of body image is framed in the curriculum should focus on positive approaches rather than “problems to be fixed”. O’Dea (2000) suggests that many school-based body image programs have done more harm than good by making pupils more conscious of the negative issues surrounding body size and shape. For example, the current talk of the “obesity epidemic” in Canadian adolescents (Tremblay & Willms, 2003) may highlight pupils’ self-consciousness regarding their bodies. O’Dea (2000) suggests school-based body image initiatives should shift their emphasis to positive approaches:

> Changing the focus from highlighting negative, problem-based issues to helping young people build self-esteem and enjoy healthy eating and regular enjoyable physical activity without developing a fear of food is the first step in establishing positive nutrition messages and school-based education programs which will do no harm. (p. 128)

Third, positive approaches to body image discussion should be integrated throughout the HPE curriculum. From my own experiences as an HPE teacher, body image tends to be taught in lessons that are separate from physical activity contexts, often occurring in a regular classroom and involving having pupils analyze media images and so on. However, it is clear that developing a positive sense of how one’s own body looks and moves is important in all aspects of HPE, from settings in the change room, to physical activity instruction in the gymnasium or playground, and during recess, lunch, and after school in the contexts of extra-curricular
activities. Thus, learning about body image should be situated in the contexts in which its impact may be most felt.

Teachers of HPE should also consider how pupils’ bodies are exposed during HPE and consider ways to alleviate circumstances that may make pupils feel vulnerable. It is clear that those pupils who are self-conscious of their body’s looks and movement carry these feelings with them into adulthood, thus affecting their commitment to and thoughts about leading a healthy lifestyle. There are many ways that teachers can provide classroom environments where pupils feel comfortable; following are several concrete examples of approaches teachers can take:

- Just as teachers should be conscious of and ready to act immediately to challenge humiliating or derogatory comments regarding gender, sexuality, race, and so on (for example, pupils saying “That’s so gay”), teachers should similarly be ready to address remarks that deal negatively with the ways that pupils describe how bodies look and move.
- Pupils could be provided with several options or personal choice of what they wear in HPE.
- Change rooms might be equipped with personal cubicles, where walls or curtains may separate each cubicle.
- Teachers should employ a variety of grouping strategies. Working in small groups is one way in which pupils might feel their bodies are less on display to other members of the class. In small group arrangements pupils often have many more opportunities to participate in tasks than in whole-class activities. When activities are organized in such a way, situations are avoided where one or two pupils are performing a task while the remainder of the class might wait in line for their turn (and hence, observe those who are performing). Alternatively, groups might also be arranged according to gender, as female pupils have often reported feeling intimidated about performing under the “male gaze” (Webb, McCaughtry & Macdonald, 2004).

**8.2.1.2 Providing a balanced HPE program**

Pupils should be made aware of and offered a wide variety activities in HPE from which they can find meaning, relevance, and enjoyment. Several student teachers reported experiencing
HPE programs as pupils that consisted primarily of team sports, supporting Kirk’s (2010) notion of the dominant physical education-as-sports discourse. While I believe sports (or developmentally appropriate, modified versions of sports) should be included in all HPE programs, it is important that they comprise only one part of a balanced program. One of the main reasons that pupils should be offered a wide variety of activities is so that they can experience and learn about different activities, with the hopes that they find several that they enjoy and in which they can participate throughout their life. To many adults activities including, but not limited to, dance and yoga represent meaningful, important, and enjoyable aspects of their life, offering channels for them to deal with stress, to meet and interact with other people, and to find ways of understanding their bodies. One simple way to begin constructing a balanced HPE program is to ask pupils for their input about activities that they would like to learn about and would be interested in participating.

Another criticism that student teachers had of school HPE was that teaching about health was largely missing from the HPE curriculum. In essence, it would have been more appropriate to talk in terms of physical education (as is the terminology in other contexts such as the United States) rather than as health and physical education. It is almost as though student teachers were experiencing HPE without the “H”. This had important implications for their HPE experiences because when opportunities to learn about broader health concepts were missed, pupils struggled to make connections between HPE and their own lives and as such, HPE lacked meaning and relevance. Therefore, it is important that aspects dealing with physical, social, and emotional health concepts be more integrated with those lessons and concepts that are focused on physical activity.

To encourage pupils to find meaning and relevance in HPE content, teachers should continually ask both themselves and their pupils: “Why are we doing this activity?” “What are we learning about here?” Asking questions not only encourages teachers to make connections between lessons and the official curriculum documents but it also encourages them to make connections to their visions for teaching HPE and to their visions about teaching pupils to lead an appealing and fulfilling way of life.

I believe the revised elementary HPE curriculum document released in Ontario (Ministry of Education, 2010) provides a strong foundation for teachers who wish to offer a balanced HPE program and one that integrates health concepts with learning about and through physical activity. The Ministry of Education (2010) has adopted physical literacy (Mandigo et al., 2009;
Whitehead, 2001; 2010) and health literacy (Rootman & Gordon-El-Bihbety, 2008) as the central components of its conceptual framework for elementary HPE and in doing so makes clear that teachers should strive to develop a program that is both meaningful and relevant to pupils. As stated in the introduction to the document, “it is important that [pupils] be connected to the curriculum; that they see themselves in what is taught, how it is taught, and how it applies to the world at large” (Ministry of Education, 2010, p. 3, Italics in original). Throughout the document there are many examples of how teachers can provide a meaningful and relevant HPE experience; examples that reflect a broad and balanced approach to HPE programming and visions of being healthy.

However, while the revised curriculum document is a strong example of how to plan a balanced HPE program, based on the data analyzed and presented in chapters Four to Seven, many student teachers do not feel that they possess the skills and knowledge that would allow them to use the curriculum documents and implement the ideas included in those documents to the greatest extent possible. Therefore, it is essential that elementary classroom teachers engage in ongoing professional development that is directly linked to the official curriculum documents.

8.2.1.3 Inclusive approaches to teaching HPE

The extent to which inclusive pedagogies were used to teach HPE was a major contributor to student teachers’ HPE experiences. From their time as school pupils, several student teachers spoke of experiencing an HPE environment that was not inclusive; in some cases programs seemed to be geared toward pupils who embodied athletic identities or who were regular participants in extra-curricular sports or physical activity. In contrast, the pre-service HPE teacher educators at Windermere University were praised by several student teachers for providing and exemplifying inclusive HPE practices where all participants benefited from the program.

Byra (2006) described inclusive pedagogies as “facilitat[ing] equal opportunities for success for all learners regardless of gender, socioeconomic status, race, ethnic background, or physical and/or cognitive ability… Inclusive pedagogies also promote the accomplishment of multiple learning outcomes, concurrently” (p. 449). As described above, providing a balanced HPE program is perhaps the most feasible and effective way of fostering inclusive approaches to teaching HPE. Certainly, teachers may be limited in their selection of activities based on the facilities, equipment, and personal knowledge available; however, strong efforts should be made
to accommodate pupil interests. In a similar line of argument, Kirk (2010) has also suggested that a potentially viable and sustainable approach to reforming HPE programming may be to offer different forms of HPE as different subjects. For example, pupils interested in sports participation might enroll in a sport education course, pupils interested in learning about how to maintain a healthy active lifestyle might enroll in a course on health-related fitness, and pupils interested in learning about movement concepts could enroll in a movement education course, participating in activities such as dance, martial arts, and so on. In such courses the focus of HPE-related content would therefore be much more focused, allowing pupils to learn about subject matter in far greater depth, and would be more closely aligned to pupil interests.

In lieu of radical program reform efforts such as those articulated by Kirk (2010), specific ways that teachers can modify their HPE instruction include: setting suitable learning challenges (for example, aiming to run for a certain amount of time rather than for a specific distance); providing different pieces of equipment for pupils to experiment with (for example, using a tennis racquet in softball or altering the size of the goals in soccer); responding to the diverse needs and interests of pupils, and; differentiating assessment and learning to meet pupils’ individual needs (Vickerman, 2010).

In order to make the suggested curriculum adaptations and instructional modifications described above, teachers of HPE would be required to have a significant amount of content knowledge and pedagogical knowledge; more than can be provided in a brief pre-service HPE teacher education course. A seemingly logical conclusion would therefore be to recommend that HPE specialists be responsible for teaching all elementary HPE classes. However, based on data presented throughout this dissertation, student teachers did not report that the HPE specialists they encountered were doing a “good job” of providing balanced programs or modeling inclusive pedagogical approaches. As such, regardless of who is responsible for teaching elementary HPE, the need for strong and continuing teacher education is especially important.

8.2.1.4 In-service professional development

It became clear that the pre-service HPE teacher education course alone was not going to be sufficient to provide elementary student teachers with adequate time to critically reflect on their experiences, learn about different types of HPE subject matter and pedagogy, and have opportunities to try teaching HPE in schools with the benefits of constructive feedback from an
experienced teacher. Thus, the findings of this research have implications that underscore the importance of in-service HPE PD programs for elementary classroom teachers.

Armour and Duncombe (2004) suggest that short bouts of in-service PD provided by external organizations are not as effective as sustained, school-based programs, where teachers are part of a collaborative, community of learners. While external providers of HPE PD may come to a school to implement a program and provide “first steps” that set a foundation for ongoing professional learning, sustainable initiatives provide teachers with a sense of ownership of a program so that they feel inclined to take the ideas beyond short workshops to discuss, share, and reflect on with their colleagues in a learning community. Therefore, PD programs need to have in place systems whereby teachers can take what they have learned from face-to-face meetings with PD providers, experiment with and reflect on the ideas they have learned, and engage in ongoing consultation with PD providers and colleagues to discuss issues and challenges as well as learn new concepts as they feel ready to progress to more complex teaching approaches. Such PD programs need to be developed so that teachers are involved in the initiatives on a medium- to long-term basis.

While acknowledging the point raised by Armour and Duncombe (2004) that effective PD should involve teachers as part of a learning community, there are several examples of external PD programs that have been studied, however, few reported in the literature have been developed and implemented in Canada. For example, Petrie (2010) highlighted several positive benefits for elementary classroom teachers in New Zealand who completed an in-service HPE program aimed at developing pedagogical knowledge; participants began to see themselves as teachers of HPE, as well as reported feeling more confident and motivated to teach HPE. Also in New Zealand, Till, Ferkins, and Handcock (2011) noted the benefits of whole-school involvement in an HPE PD program; because all teaching staff attended the program, teachers felt that they were working together as a community toward achieving common goals. The SPARK program (Dowda, Sallis, McKenzie, Rosengard & Kohl, 2005; McKenzie et al., 1993; Sallis et al., 1997) based in the United States is another example of an effective, research-based initiative aimed toward improving HPE practice for classroom teachers. However, while I acknowledge the effectiveness of the SPARK program in meetings its aims, I believe that its focus on health-related fitness and motor skill development is too narrow. If a balanced HPE program is desired, the SPARK programs would only serve part of a larger HPE professional development program.
Taking another perspective on professional development, encouraging teachers (at all stages of their career) to view themselves as lifelong learners and to engage in their own personal professional development in areas related to HPE may not only help them to better teach HPE but also to personally commit to leading a healthy active lifestyle. Kosnik and Beck (2009a) highlight the importance of teachers being lifelong learners when it comes to subject-specific knowledge development, arguing:

In order to each our subjects well, we teachers must continue to grow in knowledge and appreciation of our subjects throughout our teaching career… [A]s teachers we need to model for our students continued fascination with a subject and strategies for ongoing learning. Moreover, if we make continued learning a priority in our lives we will find teaching more fulfilling… One thing we teachers need to learn increasingly about our subjects is how studying them can enrich our lives. If we cannot see this in our own case, how can convince our students to think of the links to life? (pp. 118-119. Italics in original)

Teachers should engage in learning about health and physical activity concepts and participating in regular physical activity for their own benefit. They may then take new ideas and motivation with them into their classroom teaching.

8.2.2 Implications for pre-service HPE teacher education

Based on previous literature, the data presented in the previous chapters, and the implications that have been outlined for school HPE programs, I believe there are four main ways that pre-service HPE teacher education courses and programs can be improved. In the following sub-sections I consider two structural implications (specifically, the length of HPE coursework and the role of practice teaching) and two curricular implications (specifically, identifying priorities in teacher education and curriculum integration) that may lead to improvement in pre-service HPE teacher education programs.
8.2.2.1 Structural implications

For student teachers to experience meaningful learning in elementary HPE coursework, courses need to be longer than the 12 hours provided at Windermere University. I do not believe that there is a “magic number” where, if a certain number of hours of HPE coursework are provided, that student teachers will feel comfortable and confident teaching the subject matter. However, if a constructivist approach to preparing elementary student teachers to teach HPE is desired, it is important for deep learning to occur (Beck & Kosnik, 2006b; Rovegno & Dolly, 2006). Thus, in order for student teachers to: analyze their prior experiences in depth, learn about a wide variety of HPE subject matter in depth, and learn about progressive and inclusive HPE pedagogies in depth, I believe that at least one half-credit course would be required.22 Completing a half-credit course would allow HPE teacher educators to guide student teachers through meaningful reflection and analysis of their own and other pupils’ prior experiences, and consider reasons why individuals felt the way they did about HPE as school pupils. Moreover, I imagine that at least one HPE instructional model (for example, TGfU) could be learned about in some degree of depth in a 36-hour course and student teachers provided with many opportunities to experience participating and teaching using the instructional model. This may provide incentive for them to learn about other instructional models through professional development courses or through their own personal reading, active participation, and study.

Another way that pre-service HPE teacher education could be improved for elementary student teachers from a structural perspective is to create a more beneficial and richer practice teaching experience. This would provide student teachers with opportunities to learn about HPE in the context of the realities of elementary school, complementing the campus-based HPE course. As reported in Chapter Five, some student teachers were able to observe HPE being taught either by a classroom teacher or by an HPE specialist, while others were able to attempt teaching an HPE class; few student teachers had opportunities to experience both of these essential components of practice teaching (Beck & Kosnik, 2000; 2002a; 2002b; Brouwer & Korthagen, 2005; Darling-Hammond, 2006a; 2006b; Korthagen & Kessels, 1999; Wilson et al., 2002; Zeichner, 1996; Zeichner & Tabachnick, 1981). For student teachers to be able to observe and receive feedback on their teaching from strong HPE practitioners (who may be either classroom teachers or specialists), a great deal of work needs to be done partnering with schools.

22 A half-credit course at Windermere University requires 36 hours of coursework.
and/or school districts where HPE is clearly valued, envisioned, and taught in ways that align with the university. According to Darling-Hammond (2006a), a coherent program vision is a core feature of exemplary teacher education programs, and this vision is reflected by the views and practices of school-based associate teachers and campus-based teacher educators.

Locating and securing associate teachers and schools who share and implement the messages of university teacher education programs presents a substantial logistical challenge, particularly when large numbers of student teachers enroll in pre-service programs every year. However, in order for student teachers to be provided with exemplary practice teaching experiences I believe that more attention needs to be paid to this issue, both in terms of teaching HPE and of teaching in general. This may provide student teachers with clearer examples of how their campus-based experiences can be applied, developed, and refined in the field.

8.2.2.2 Curricular implications

There are several ways that the pre-service HPE teacher education curriculum can be improved in light of the findings. I believe that the most feasible ways to ensure improvement in the HPE teacher education curriculum is to: establish clear priorities of what will be learned in the short amount of course time and; integrate subject matter across the entire teacher education program.

All teacher educators should explicitly prioritize and focus on what they believe are the most important things for elementary student teachers to learn about teaching (Kosnik & Beck, 2009a). In the brief time that student teachers have to learn about HPE and about teaching HPE, I do not believe that most could develop the levels of subject matter knowledge necessary to understand in any depth, for example, planning or assessment in HPE. Supporting ideas proposed by Morgan and Bourke (2008), data analyzed in Chapter Four revealed that having student teachers reflect on and analyze their prior experiences was a crucial “taking off” point in the process of learning to teach HPE. The results of this research suggest that a clear priority for HPE teacher educators should be focusing on student teachers’ prior HPE experiences and developing identities as healthy, active citizens, and as teachers of HPE. To be sure, these processes may take time away from learning about HPE subject matter and pedagogy, however, in order for student teachers to develop the motivation to learn about HPE there needs to be more focused efforts to guide student teachers through reflective processes, allowing them to consider, for example: What did they like/dislike about HPE as school pupils? Why did they like/dislike
HPE? What did their HPE teacher do (or not do) to influence their HPE experience? How did their experiences influence their current views and attitudes about teaching HPE? If they could change things about their HPE experience, what would they be? Such questions could form the basis for student teachers to interview each other about their HPE experiences. In Chapter Five, Natasha spoke about the benefits of participating in the interview process and how it helped her to think more deeply and critically about her prior HPE experiences. She said:

I think actually doing these interviews kind of helped too. Because a lot of the things we talk of, I never really thought about why I hate[d] gym really… But being able to talk it out and figure out what things affected me as a child and knowing that I won't be doing that to other children really helps too. (28/1/2010)

Thus, having student teachers interview (either formally or informally) each other may be one useful way to engage them in the reflective process during HPE coursework, as well as providing them with tools to engage in ongoing reflection of their teaching and learning.

The caveat to emphasizing work that involves critical reflection in the brief HPE teacher education course is that sustained and ongoing professional development for teaching HPE takes place in the beginning years of teaching. Once provided with opportunities to reflect on their prior experiences and the tools to engage in ongoing reflection, the focus of such PD should then be on subject matter and pedagogical knowledge in the context of HPE. The onus for improving how classroom teachers teach HPE therefore is just as much on those who fund and provide professional development for in-service teachers as it is on those involved in pre-service teacher education.

Focusing on reflection and the development of a positive teaching identity does not mean that subject matter and pedagogical knowledge are not addressed in pre-service HPE courses; however, it does mean that the emphasis in such courses is dramatically shifted. This may leave student teachers feeling that they do not have the necessary strategies to be able to teach elementary HPE during practice teaching. To increase the development of subject matter and pedagogical knowledge, particularly the latter, teacher educators should therefore make extended efforts to integrate subject matter across curriculum and instruction courses. For example, HPE concepts could be easily integrated into other subjects including: mathematics (graphing health statistics or the number of vegetable servings consumed by class members in one week);
language arts/literacy (writing health or physical activity autobiographies); or science (studying forces in science by experimenting with passing or throwing objects).

Several student teachers referred to the one-year pre-service teacher education program at Windermere University being “a blur” due to the large number of courses they completed and the speed with which they transitioned from one learning experience to another. This led them to have difficulty recalling what they learned in HPE and it is not difficult to imagine that they would have similar difficulty recalling what they learned in other subject areas such as visual art, music, and so on. Darling-Hammond (2006a) suggests that exemplary teacher education programs display coherence in their curriculum and opportunities to integrate subject matter are made paramount. If school subjects are treated as entities that stand alone and do not relate to one another, pupils (and student teachers) miss making connections between and across subject areas and their own lives. According to Kosnik and Beck (2009a), integration of subject matter is a vital aspect of strong program planning and can lead to increased pupil engagement. In the case of HPE, not only would a clear message be passed on to student teachers about the value of learning about health concepts in a child’s education but by integrating subject matter teacher educators would also model exemplary teaching practices in their courses.

8.2.3 Implications for out-of-school physical activity programs

From the interviews with student teachers about their prior experiences with HPE and physical activity, it was evident that several participants’ out-of-school physical activity experiences had a strong impact upon their views and behaviours about leading a healthy lifestyle. In light of the importance of early learning experiences on children’s physical, social, and emotional development, Kirk (2005) suggests that elementary schools are simply not equipped to meet the needs of all children. As such, community organizations and school-based physical activity practitioners (such as HPE teachers and extra-curricular coaches) need to offer a “joint effort” to promote consistent messages about the importance of physical activity and offer a wide scope of opportunities for children to participate in various types of activities and at various levels. Furthermore, children need to be offered out-of-school physical activity programs that are inclusive of all participants. While I believe that the elite sports approach has its place, the provision of such programs cannot come at the expense of programs that foster participation for all children who are interested.
The broad array of activities that student teachers experienced and the varying levels of comfort with physical activity suggest that what goes on in HPE programs support Kirk’s (2005) view that HPE programs do not provide the scope of activities that would meet the interests of all pupils. There are several logistical reasons for this, including the expense and space for the requisite facilities and equipment. Moreover, the expertise of teachers (whether classroom teachers or specialists HPE teachers) may be limited in offering the types of activities that pupils would like to experience. These might include martial arts, yoga and tai-chi, various forms of dance, outdoor/adventure activities, sports that go beyond those traditionally offered in North American school curricula, and so on. Therefore, teachers of HPE should work closely with community physical activity organizations and institutions (whether recreational groups or elite sporting clubs) to provide elementary school pupils with the skills, attitudes, and knowledge needed to lead a healthy lifestyle into early adulthood and beyond. This may involve teachers using guest speakers/coaches, organizing field trips to local health, physical activity, and recreational facilities, and so on.

However, it is imperative that teachers consult with the out-of-school physical activity providers to ensure that their visions and approaches to teaching children about physical activity do not perpetuate the negative experiences described throughout this dissertation. Therefore, organizations should in effect be vetted so that all pupils can experience the benefits of participating.

8.2.4 Implications for policy: Addressing the specialist/generalist issue

Prior to beginning this dissertation research, I believed that specialist HPE teachers should be responsible for teaching all HPE classes in elementary schools and that this was the only solution to improving how HPE subject matter was taught at that level. While I still believe there are benefits to this approach, as a result of conducting this research I am less inclined to think in absolute terms. This is tempered by the realities of the education system, where, as I have explained previously, there would need to be substantial financial investment to prepare and hire more HPE specialists at the elementary level. However, the “turning point” for me came following my analysis of student teachers’ prior experiences of HPE as school pupils: most student teachers reported that their experiences of HPE programs, whether taught by generalists or HPE specialists, were not balanced, nor were they taught in inclusive ways that were meaningful and relevant to pupils.
Reflecting the pragmatist approach that I have adopted throughout this dissertation, I have come to the conclusion that improving how elementary classroom teachers are prepared to teach HPE seems to be the most feasible option to improving the quality of elementary HPE programs. While HPE specialists may be better prepared with the levels of subject matter and pedagogical knowledge that are required to teach quality HPE programs, it does not guarantee that they will be able to provide positive HPE experiences for all pupils. Just as Lortie (1975) highlighted many years ago, those who choose to become teachers are likely to do so because they were successful at school and in the case of subject specialists, most would have enjoyed the subject and the way it was taught when they were pupils. They want to be HPE teachers because they enjoyed the activities (primarily sports) and reveled in being successful in those contexts. To be sure, this is one of the main reasons why I chose to become a teacher of HPE. To support this, previous research has shown that many prospective HPE specialists tend to adopt a custodial approach to teaching with aims to preserve its traditions and customs because they enjoyed those traditions and customs from their own HPE experiences (Curtner-Smith, 2001). Thus, prospective HPE specialists may be resistant to changing the ways that HPE is thought about and taught.

In this sense, if HPE is hoping to undergo change, perhaps elementary classroom teachers may be the most likely candidates to adopt change at school level; because they may see change as being necessary in HPE based on their own experiences, and may be able to locate where change is most needed. Taking these ideas further, most research, including that presented in this dissertation has framed the elementary classroom teacher and HPE in a negative light, coming to conclusions that HPE specialists are the only way to improved school HPE programs. However, I now believe that there are several positives that have gone somewhat overlooked in the literature that provide clues as to why elementary classroom teachers may hold a key to educational change and improvement in regard to HPE. For example, although many elementary student teachers come to teacher education with negative HPE experiences, data reported in Chapters Five and Six showed that many student teachers were able to critique those experiences and envision what would have made their experience positive and meaningful. As shown through the interviews, when participants in this research were exposed to progressive approaches to teaching HPE, such as TGfU, several felt that they identified more closely with the HPE curriculum; that it was more meaningful to them, and that they would be able to make positive contributions to pupils’ HPE experiences.
In adopting such an approach, I acknowledge that there would be a large gap in the levels of subject matter and pedagogical knowledge that most elementary classroom teachers would need in order to teach HPE well. As I have argued throughout this chapter, the role of in-service PD for classroom teachers needs to be far greater than it currently is in Ontario elementary schools. Rather than hiring specialist HPE teachers for each elementary school, a more feasible approach may be to hire HPE consultants for clusters of, for example, a dozen schools. These consultants would have the necessary subject matter and pedagogical knowledge necessary for constructing and implementing quality HPE programs, and as such, may be in a good position to offer and implement the types of PD programs for classroom teachers that were described in previous sections.

8.2.5 Implications for future research

The findings presented in this dissertation offer important contributions to knowledge of the experiences of elementary classroom teachers as they learn to teach HPE, however, several avenues for further research arose in light of the findings.

A longitudinal research design based on the design and findings of this dissertation research is something that I am particularly interested in pursuing. Following student teachers as they graduate from pre-service teacher education programs and enter the field will provide further knowledge about the extent to which pre-service programs can and do make a difference to beginning teachers, as well as to highlight areas and strategies for program improvement. Thus, to take the findings from this dissertation one step further, I would be interested in analyzing the extent to which any change in the pre-service program (for example, identity development as a teacher of HPE) is sustainable over the medium- to long-term. Specifically, to what extent do program graduates see themselves as teachers of HPE once they have been exposed to the realities of elementary school teaching? To what extent do they feel HPE is a valuable part of the elementary curriculum? And, to what extent are their feelings influenced or mediated by colleagues, administrators, and parents?

One of the main findings from this research suggested that student teachers increased in the extent to which they identified as teachers of HPE. Future research may employ interventions that are specifically aimed at improving teacher identity in HPE to explore specific strategies, methods, and so on that teacher educators can use to foster positive identity development. What are the specific features of pre-service HPE courses that foster positive identity development?
How are the pre-service HPE classes developed and what might they look like? Are programs that foster positive identity development in HPE more likely to foster positive teaching identities across other subject areas or is it limited to the HPE course?

While interview data analyzed in this dissertation provided insights into the experiences of student teachers learning to teach HPE, another area of learning to teach that has been largely overlooked concerns the HPE practices of student teachers and others involved in the pre-service teacher education program. As a way to improve the triangulation of survey and interview data and to further our knowledge of the processes of learning to teach HPE, future research might consider expanding the methods of data collection to include observations of the teaching practices of student teachers, HPE teacher educators, and associate teachers. Such research designs could more closely link the experiences of student teachers with the potential effectiveness of their practices. For example, research questions that might be considered include: Are student teachers who have positive HPE and physical activity more likely to display better HPE practices than student teachers with negative experiences? If so, is it limited to areas of physical activity that they have had experience in, or is it somewhat even across the HPE curriculum?

While knowledge has increased of the experiences of elementary student teachers learning to teach HPE, there is little research that has explored the thoughts, views, or practices of pre-service HPE teacher educators (including associate teachers) who are responsible for teaching elementary student teachers. What are their HPE practices and what are their thoughts behind their teaching about teaching HPE? The use of self-study methodologies has been recognized as one of the major recent breakthroughs in research on teacher education (Zeichner, 1999), yet its use is largely missing from research in HPE teacher education. Such approaches may help to address this gap in the literature.

8.3 Limitations

Although the findings from this research make important contributions to knowledge of elementary student teachers’ experiences of learning to teach HPE, they should be treated with some caution for several reasons.

First, data presented the experiences of student teachers from one teacher education institution in one Canadian urban centre. Student teachers who attend institutions in other
geographical and cultural contexts (for example, in rural contexts, in other Canadian provinces, and in other countries) will have very different experiences from the student teachers who attended Windermere University. Thus, readers should be aware that findings from this study will not necessarily apply to other contexts.

Second, the trustworthiness of interview data could have been enhanced if it were triangulated with other methods of data collection. For example, I could have observed the teaching practices of: (a) HPE teacher educators at Windermere University, (b) associate teachers at practice teaching schools, and (c) student teachers during practice teaching. However, this would have amounted to a very large and possibly unmanageable amount of data for a study of this scope.

Third, the study examined only student teachers’ prior HPE and physical activity experiences and their experiences of HPE during pre-service teacher education. Despite what has been found in this study regarding the salience of these experiences, there are essential elements that remain unknown, such as how and in what ways these experiences impact upon practicing elementary classroom teachers’ experiences of teaching HPE.

8.4 A reflection on teaching HPE to elementary student teachers

The shift in my attitude about elementary student teachers began when I came across several of the articles reported in this chapter and Chapter Two on pupils’ and student teachers’ experiences of HPE. At times I found it quite uncomfortable reading – particularly in terms of the HPE curriculum – because I came to realize that the secondary HPE program that I taught and the way that I taught it probably did more to perpetuate many of the negative experiences that I read about rather than challenge them. Collecting and analyzing my interview data only reinforced the point. For instance, the program I taught consisted mainly of team sports that I taught in the traditional skill-drill-modified game format, and one of the hardest challenges for me to address was involving all students; both those who did and did not identify as physically active people. That is, I would teach mostly to “the middle” of the class, leaving pupils who struggled with tasks or those who found tasks too easy to figure things out for themselves if they wanted to participate.

Prior to conducting this research I also did not place pupil learning at the core of my practice. If you pushed those in my class (either in secondary school or pre-service settings) for
what they actually learned from me I would be very interested to hear what, if anything, would be said. Although my classes had pupils and student teachers participating in physical activity, I don’t feel I had been doing enough to teach: to facilitate learning and understanding; or to allow for different strengths in several domains to be developed (physical, cognitive, social, emotional). Analyzing my own assumptions (and those of others) about the HPE experiences of student teachers candidates enabled me to identify the areas of my practice that most needed attention if the student teachers I was teaching were to go forth into elementary schools feeling positive about HPE (as a subject) and about teaching HPE. It also helped to shape a vision of what I thought would create a positive pedagogy of elementary teacher education for me as a teacher educator.

My current practice as an HPE teacher educator reflects the four main findings of this research, as well as the recommendations offered previously in this chapter. Asking student teachers to reflect on their prior experiences and envision positive HPE practices now forms the core of the HPE course that I teach. The activities that we participate in and learn about represent a wide variety of physical activities, and various health domains are addressed. Furthermore, we consistently consider ways to provide inclusive HPE practices so that student teachers think about difficulties pupils may have, or challenges they may face.

If educational change efforts are to be sustainable, I agree with Cochran-Smith and Lytle (2009), Feiman-Nemser (2001), Hargreaves and Fullan (1992), and Wideen et al. (1998) that those efforts should begin with the individual practitioner, be it the classroom teacher, HPE specialist, in-service provider, or pre-service teacher educator. Conducting this research has forced me to think deeply about and change my own practice as a teacher of future teachers of HPE, and ultimately what I think children in schools should be learning about in the subject. I have been able to disrupt aspects of my practice that perpetuated some of the negative experiences reported by student teachers. Had I not understood the nature of student teachers’ experiences as school pupils I may have gone on with what I had been doing as a secondary teacher. I now see reflection on experience as vital not only to their development as teachers but also to my own development as a teacher educator and lifelong learner. It is part of my lesson structure to make student teachers aware of my reflections upon the HPE classes, including what I reflect upon, how I reflect, and what I have learned as a result of participating in reflective practice. I now feel that I am better able to understand the role of prior experiences of student teachers, whether HPE specialists or generalists, and feel better equipped to help student teachers
make sense of their experiences, and perhaps most importantly, the experiences of others, in order to grow as teachers of HPE.
Reference List


Appendix A: Pre-test Survey

HEALTH, PHYSICAL EDUCATION & PHYSICAL ACTIVITY QUESTIONNAIRE

Thank you for agreeing to complete this survey. It should take about 20 minutes to complete, including the open-ended final section. Your course instructor will not know about your participation. Confidentiality will be maintained at all times.

A - Background information

Please check the correct response

1. Gender: ○ Male ○ Female

2. What program are you currently in? ○ 1 yr B.Ed. ○ 2 yr M.A.

3. What is the focus of your program? ○ Primary/Junior ○ Junior/Intermediate

   Teaching subject: ___________________________

   Cohort: ___________________________

4. Would you be interested in participating in an interview about the health and physical education component of your teacher education program (please see attached memo for more information)?

   ○ Yes ○ No

5. Do you plan to teach next year? ○ Yes ○ No

6. If yes, what grade you like to teach next year? (Select as many as apply)

   ○ JK/SK ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12

   ○ Other: ___________________________

7. What is your educational background? (Please indicate highest level completed)

   ○ B.A. ○ B.Sc. ○ M.Ed. ○ M.A. ○ Ph.D.

   Major area of study: ___________________________

8. How long ago did you complete it?

   ○ less than 1 yr ago ○ 1-5 yrs ago ○ 6-10 yrs ago ○ 11-15 yrs ago ○ 16 or more yrs ago
B – Experience with health, physical education and physical activity

9. In your university undergraduate program, how many physical education, physical activity, recreation, exercise, health, fitness, or sports related courses did you take?

○ 0 ○ 1 ○ 2 ○ 3 ○ 4 or more

FOR THE NEXT TWO QUESTIONS, USE THE FOLLOWING SCALE:

1 = Not At All, 2 = A Little, 3 = Neutral, 4 = A Fair Amount, 5 = A Great Deal

10. To what extent do you feel comfortable with physical education and/or physical activity?

11. As a pupil in elementary and high school, to what extent did you enjoy health and physical education?

PLEASE ANSWER THE NEXT QUESTION REGARDING YOUR OWN PHYSICAL ACTIVITY PATTERNS. IN THIS CASE, INCLUDE ACTIVITY WHICH IS AT LEAST OF A MODERATE LEVEL (WHICH MAKES YOU BREATHE A BIT HARDER, OR MADE YOU FEEL WARM) FOR AT LEAST THIRTY MINUTES, ON MOST, PREFERABLY ALL, DAYS OF THE WEEK (YOU CAN COUNT TWO PERIODS OF 15 MINUTES CONTINUOUS ACTIVITY AS LONG AS THEY WERE ON THE SAME DAY).

12. Which of the following best describes your current physical activity and exercise pattern?

Tick ONE only

a. I am not physically active and I don’t intend to start

b. I am not physically active but I’m thinking about starting

c. I am physically active once in a while but not regularly

d. I am physically active regularly but started only in the past six months

e. I am physically active regularly and have been so for longer than six months

f. I was physically active regularly in the past, but not now

If you selected option f, which of the following BEST describes your current position?

I don’t intend to start being physically active again

I’m thinking of starting to be physically active again
**C – Teaching health & physical education**

**13. I think of myself:**

<table>
<thead>
<tr>
<th>Disagree strongly</th>
<th>Agree strongly</th>
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<tbody>
<tr>
<td>As the sort of person who teaches HPE:</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>As someone who generally thinks about the health benefits of HPE:</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>As a health conscious person:</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>As a person who thinks about my students’ health:</td>
<td>1 2 3 4 5 6 7</td>
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</table>

**14. What may limit you teaching HPE for at least 3 X 30 minute lessons per week?** In the left hand table, please tick the best description of how limiting each of the factors below is for you in teaching HPE for at least 3 X 30 minute lessons per week. For each of these factors, tick how confident you are that you could overcome each barrier in the right hand column.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Never</th>
<th>Rarely</th>
<th>Not sure</th>
<th>Sometimes</th>
<th>Always</th>
<th>Very unconfident</th>
<th>Not sure</th>
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D – Thoughts and feelings (if you run out of space, you can use the back of this page).

15. In general, what are your thoughts and feelings about health, physical education, and physical activity?

16. In general, what are your thoughts and feelings about teaching health and physical education?

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY
Appendix B: Post-test Survey

HEALTH, PHYSICAL EDUCATION & PHYSICAL ACTIVITY QUESTIONNAIRE

Thank you for agreeing to complete this survey. It should take about 20 minutes to complete, including the open-ended final section. Your course instructor will not know about your participation. Confidentiality will be maintained at all times.

A - Background information

Please check the correct response

2. Gender: ○ Male ○ Female

2. What program are you currently in? ○ 1 yr B.Ed. ○ 2 yr M.A.

3. What is the focus of your program? ○ Primary/Junior ○ Junior/Intermediate

Teaching subject: _______________________________________

Cohort: _______________________________________

4. Do you plan to teach next year? ○ Yes ○ No

5. If yes, what grade you like to teach next year? (Select as many as apply)

○ JK/SK ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10 ○ 11 ○ 12 ○ Other: _____________

6. How many practice teaching placements have you had? ○ 1 ○ 2 ○ 3 ○ 4

7. Did you teach HPE at all during your practice teaching placements? ○ Yes ○ No
B – Experience with health, physical education and physical activity

FOR THE NEXT QUESTION (#8), USE THE FOLLOWING SCALE:

1 = Not At All, 2 = A Little, 3 = Neutral, 4 = A Fair Amount, 5 = A Great Deal

8. To what extent do you feel comfortable with physical education and/or physical activity?

PLEASE ANSWER THE NEXT QUESTION (#9) REGARDING YOUR OWN PHYSICAL ACTIVITY PATTERNS. IN THIS CASE, INCLUDE ACTIVITY WHICH IS AT LEAST OF A MODERATE LEVEL (WHICH MAKES YOU BREATHE A BIT HARDER, OR MADE YOU FEEL WARM) FOR AT LEAST THIRTY MINUTES, ON MOST, PREFERABLY ALL, DAYS OF THE WEEK (YOU CAN COUNT TWO PERIODS OF 15 MINUTES CONTINUOUS ACTIVITY AS LONG AS THEY WERE ON THE SAME DAY).

9. Which of the following best describes your current physical activity and exercise pattern?

Tick ONE only

a. I am not physically active and I don’t intend to start [ ]
b. I am not physically active but I’m thinking about starting [ ]
c. I am physically active once in a while but not regularly [ ]
d. I am physically active regularly but started only in the past six months [ ]
e. I am physically active regularly and have been so for longer than six months [ ]
f. I was physically active regularly in the past, but not now [ ]

If you selected option f, which of the following BEST describes your current position?

I don’t intend to start being physically active again [ ]
I’m thinking of starting to be physically active again [ ]
### C – Teaching health & physical education

**10.** I think of myself:

<table>
<thead>
<tr>
<th>As the sort of person who teaches HPE:</th>
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<th>Agree strongly</th>
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<th>As a person who thinks about my students’ health:</th>
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**11.** What may limit you teaching HPE for at least 3 X 30 minute lessons per week? In the left hand table, please tick the best description of how limiting each of the factors below is for you in teaching HPE for at least 3 X 30 minute lessons per week. For each of these factors, tick how confident you are that you could overcome each barrier in the right hand column.

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<thead>
<tr>
<th>Limiting Factors</th>
<th>Never</th>
<th>Rarely</th>
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</table>
D – Thoughts and feelings (if you run out of space, you can use the back of this page).

12. In general, what are your thoughts and feelings about health, physical education, and physical activity now that you have taken the HPE course?

13. In general, what are your thoughts and feelings about teaching health and physical education now that you have taken the HPE course?

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY